



ENGAGEMENT, EDUCATION & EXPECTATIONS

THE FUTURE OF PARKS & PROTECTED AREAS



The George Wright Society Biennial Conference
on Parks, Protected Areas, and Cultural Sites
March 29–April 3, 2015

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The Week at a Glance

Time	Sunday, March 29	Monday, March 30	Tuesday, March 31	Wednesday, April 1	Thursday, April 2	Friday, April 3
7:00–8:00a		Registration (7:00a–6:00p)	Registration (7:00a–6:00p)	Registration (7:00a–6:00p)	Registration (7:00a–6:00p)	Field Trips: Presidio (8:00a–5:00p) East Bay Regional Parks (8:30a–12:30p)
8:00–9:30a	Field Trip: John Muir NHS / Port Chicago NMem (9:15a–4:45p)	Plenary I: Health/Parks Connection (Panel Discussion)	Plenary II: Sliding Baselines (Kathleen Dean Moore)	Focus Sessions: • Philanthropy • NPS Centennial • World Parks Cong	Focus Sessions: • Public/Priv Models • Climate Chng Adapt • Inspiring Youth • New Interp Trends	Point Reyes NS (8:30a–4:30p)
9:30–10:00a		BREAK (complimen-tary beverages)	BREAK (complimen-tary beverages)	BREAK (complimen-tary beverages)	BREAK (complimen-tary beverages)	Redwood Creek Watershed (9:00a–4:30p)
10:00a– 12:00p		Concurrents 1–9	Concurrents 28–36	Concurrents 59–67	Concurrents 90–98	Rosie the Riveter WWII Homefront NHP (10:00a–4:30p)
12:00–1:30p		LUNCH BREAK	LUNCH BREAK	LUNCH BREAK	LUNCH BREAK 12:00–1:00 Concurrents 99–107 (1:00–3:00p) BREAK 3:00–3:30p (complimentary beverages)	Service Projects: Trail Maintenance in Oakland Hills (8:00a–Noon)
1:30–3:30p	Field Trip: Univ of California Museums (1:00p–5:00p)	Concurrents 10–18	Concurrents 37–45	Concurrents 68–76	Concurrents 108–116 3:30–5:30p	Grafting Fruit Trees at John Muir NHS (8:00a–Noon)
3:30–4:00p	Registration Noon–9:00p	BREAK (complimen-tary beverages)	BREAK (complimen-tary beverages)	BREAK (complimen-tary beverages)	PLENARY III: N American Leaders (Panel Discussion) 5:30–6:30p	
4:00–6:00p		Concurrents 19–27	Concurrents 46–54	Concurrents 77–85		
Evening	GMW Scholarship, Indigenous Grant recipients meet (7:00p)	Welcoming Reception (7:00–8:30p)	Concurrents 55–58; Poster Spotlight Reception (6:30–7:30p)	Concurrents 86–89; Indigenous Film Night (8:00–9:30p)	Celebrating George Wright / GWS Awards Event (7:00–8:30p)	
Poster Session	Poster / Computer Demo / Exhibit Set- Up (8:00–10:00p)	Poster Session con-tinues all day	Poster Session con-tinues all day	Poster Session con-tinues all day	Poster Session con-cludes (12:00p)	
Other Special Events (date/time TBA)	• "The Bigger Picture" Lectures • IUCN World Commission on Protected Areas North America Members' Meeting • US/ICOMOS Reception/Meeting					

Welcome to Oakland!

We're Glad You're Here!

Thank you for choosing to attend “**Engagement, Education & Expectations: The Future of Parks & Protected Areas**,” the 2015 George Wright Society Biennial Conference on Parks, Protected Areas, and Cultural Sites. We want to make your time here as rewarding as possible. If you have a problem, a question, or need any kind of assistance, please see a conference representative at the Registration Desk.

The Conference Committee and GWS Board of Directors extend a warm welcome to you! Co-chaired by Melia Lane-Kamahele and Jerry Mitchell, the 2015 Conference Committee members are: Matthew Browning, David Gruber, David Parsons, Ryan Sharp, Chris Spence, Jenn Thomsen, and Lynn Wilson. The members of the GWS Board of Directors are Nathalie Gagnon, president; Jerry Mitchell, vice president; Ryan Sharp, treasurer; David Parsons, secretary; and David Gruber, Barrett Kennedy, Chris Spence, Jan van Wagendonk, and Lynn Wilson, at-large members. Matthew Browning is graduate student representative to the Board. Dave Harmon is the GWS executive director and Emily Dekker-Fiala is conference coordinator. Welcome to Oakland! Let us know how we can assist you.

Special appreciation goes to several people who were instrumental in helping obtain sponsorships for GWS2015. From the National Park Service: Ray Sauvajot, Stephanie Toothman, and Julia Washburn. From the Santa Ynez Band of Chumash Indians: Freddie Romero and Veronica Sandoval. From VHB: Rosemary Morris. From Hitachi Consulting: Francis Priznar. Thanks one and all!



The George Wright Society: Better Knowledge, Better Decisions, Better Parks

The **George Wright Society** promotes protected area stewardship by bringing practitioners together to share their expertise. Founded in 1980, we are an international nonprofit association of researchers, resource managers, educators, administrators, and activists working in parks, other kinds of protected natural areas, and cultural and historic sites. We promote professional research and resource stewardship across natural and cultural disciplines, provide avenues of communication (such as this conference and our thrice-yearly journal, *The George Wright Forum*), and encourage public policies that embrace these values. We strive to be the premier organization connecting people, places, knowledge, and ideas to foster excellence in natural and cultural resource management, research, protection, and interpretation in parks, protected areas, and cultural sites. *If you share these goals, please join us! Membership in the GWS is open to anyone, and includes a subscription to the Forum. You can join here in Oakland by seeing us at the Registration Desk, or later online at www.georgewright.org/join.*

George Melendez Wright was the first scientist to work for the U.S. National Park Service. Wright was known for his keen ecological insights and winning personality. He was a strong proponent of putting “resources first” in parks and fought for ecological integrity in protected natural areas. More than this, as a Hispanic American he respected the value of cultural diversity, and understood the importance of marshaling natural and cultural resource disciplines in concert to achieve park management goals. *Thanks to the generosity of Pam and Jim Lloyd, we are very pleased to offer you a special commemorative book about Wright’s life and continuing legacy as part of your registration materials.*

The GWS Biennial Conferences: Critical Thinking Since 1982

GWS2015 is the 18th in a series of conferences whose origins date back to 1976, the year the U.S. National Park Service held its first conference on science in national parks; another followed in 1979. Beginning in 1982, the GWS has organized the conferences, expanding them beyond science to embrace all kinds of inquiry related to parks, protected areas, and cultural sites. The GWS biennial has become the USA’s leading interdisciplinary conference in the field. It is the only such conference to actively seek participation from across the entire spectrum of disciplines and activities that are necessary for successful protected area management.

Conference Overview

GWS2015: Designed to Deliver Results

Past GWS conferences asked potential presenters to submit proposals according to format. For example, if you wanted to organize a Panel Discussion, you filled out a form for a panel discussion. There was little emphasis on what the sessions or presentations themselves were trying to achieve, and no easy way for attendees to extract that information from abstracts. For GWS2015, we have moved to a conference framework that focuses on results: proposals are classified according to what they are trying to accomplish.

The entire conference is divided into sessions: blocks of time that are structured in different ways so as to achieve a specific outcome. There are five types:



Challenge Sessions start with one or more speakers who challenge members of the audience to question their assumptions. These sessions ask attendees to reconsider everything they think they know about the session topic. The outcome is that attendees emerge from the session with their critical thinking faculties fully engaged.



Update Sessions bring attendees together to fill them in on the latest developments with regard to a project, program, or issue. The outcome is that attendees emerge from the session fully up-to-date on the topic.



Compass Sessions ask two questions: "Where are we?" and "Where do we want to go?" These sessions start with a state-of-knowledge summary of a particular topic, and then ask the audience to reflect on where we should go from here. The outcome is a range of possible directions with respect to the session topic that attendees can share with colleagues.



Collaboration Sessions bring attendees together to work on or provide input into a specific project or product—it could be a plan, a set of guidelines, a survey, etc. At the end of the session, the organizers will give attendees the opportunity to help complete the project/product by joining a working group that will continue after the conference.



Skills Sessions are hands-on training opportunities that increase the capacity of attendees to solve a specific problem. The outcome is that attendees leave with new skills applicable to the problem.

GWS2015 is formatted into Plenary Sessions, Focus Sessions, Concurrent Sessions, and a Poster/Exhibit Session.

- **Plenary Sessions** are the keynotes of the conference, when all conferees come together to learn about and discuss important topics.
- **Focus Sessions** are like Plenary Sessions, except that there are three or four going on at once, instead of just one.
- The **Poster/Exhibit Session** runs continuously from Sunday through noon on Thursday. Posters and Exhibits are available for continuous viewing for the duration of the session. A *Poster Spotlight Reception* will be held on Tuesday, March 31, from 6:30–7:30 pm in Exhibit Hall East 1. Presenters should plan to stand by their Poster or Exhibit during this time.
- **Concurrent Sessions**, all two hours long, include:
 - *Invited Papers* and *Contributed Papers* sessions, consisting of individual oral presentations, each lasting twenty minutes: fifteen for the presentation, and five for questions and answers (Q&A) with the audience. In some sessions, the last twenty minutes of the two-hour session are reserved for general Q&A with all the session's presenters.
 - *Panel Discussions* involve short panelist presentations followed by extensive interactions with the audience.
 - *Day-cappers* are intended to give people an alternative to standard sessions during the late afternoon, and take a variety of innovative formats.

- *Sharing Circles* are a way for conference participants to share information and experiences in a more personal setting. More participatory and spontaneous than the standard lecturer/audience model of information transfer, Sharing Circles provide an alternative way of learning that many people are more comfortable with. They are particularly associated with Indigenous traditions of teaching and sharing. Sharing Circles are guided by an organizer who introduces the topic, begins the conversation and keeps it moving and focused, and makes sure that everyone has a chance to participate in the discussion as he or she wishes.
- *Café Conversations* are a format that combines small-group discussions with dialogue among all session attendees. They take place in a meeting room set up so as to resemble a café, i.e., round tables where no more than ten people are seated.
- *Workshops* are designed to get input or other assistance from attendees on a specific product or to give people new skills.
- New for GWS2015, *Lightning Sessions* (aka “20/20” or “PechaKucha” sessions) are a fast-paced alternative to regular talks. Each presenter gets only 20 slides, each of which is on-screen for 20 seconds, making for a total presentation time of 6 minutes 40 seconds. The intent is for the presenter to quick-hit on the highlights of the work so that the audience gets the gist of what’s going on quickly.

All sessions, and individual Contributed Papers, Posters, and Exhibits, have a **Value Proposition** and a set of **Keywords**. Value Propositions are a one-sentence summary of what you will get out of attending that session or presentation. For sessions, *the Value Proposition is printed in italics* in this Program Guide; for individual Contributed Papers, Posters, and Exhibits, the Value Proposition can be found in the Abstract PDF on your stick drive. The Keywords are also found in the Abstract PDF, and separately on the stick drive there is an alphabetical list of all Keywords to help you search Abstracts by topic.

Complimentary beverages will be available to all registrants during the morning and afternoon break periods on Monday, Tuesday, Wednesday, and Thursday. Breaks will be served on the first floor, either in the Atrium or in the corridor near the Exhibit Hall. *All sessions are open to all registrants*. You do not have to sign up in advance to attend a particular session, and you are welcome to move between sessions to catch individual presentations.

An Important Note on Punctuality and Last-minute Changes

We know that many people like to jump between Concurrent Sessions to catch individual presentations, and that it’s frustrating to come into a room only to find a session running behind schedule. We have asked session chairs to do their utmost to keep the sessions running on schedule. Inevitably, however, some sessions will be affected by last-minute changes. All changes that are received after this Program Guide goes to press (in early March) will be summarized on a Late News handout included in your registration packet.

In the event of very-last-minute cancellations and/or no-shows in Invited Papers or Contributed Papers sessions, the session chairs have been instructed to “close the gap” by moving all subsequent papers up a slot within the session. This means, of course, that at least a portion of the affected session will be running ahead of schedule. We understand that this is not a perfect solution, and that it will be frustrating for people who are trying to catch a particular paper, only to find that it has already been presented. Nonetheless, after trying other alternatives over the years we feel this is the best way to deal with a situation that, we hope, will not crop up too often during the week. Thanks in advance for your understanding.

Conference Proceedings & The George Wright Forum

An edited Conference Proceedings will be published by the George Wright Society as a record of the conference. The Proceedings will be published as a PDF e-book on the GWS website. Certain papers will be selected for publication in the GWS’s journal, *The George Wright Forum*. Anyone who is making a presentation at the conference is welcome to prepare a paper—even people who are giving Posters or Exhibits. For more on how to submit a paper for the proceedings, see www.georgewright.org/gws2015_instructions. The deadline for submissions is May 29, 2015.

Our Organizational Sponsor and Supporters



The **National Park Service** oversees over 400 units of the national park system for the enjoyment, education, and inspiration of this generation and those yet to come. NPS also works with local communities to preserve historic sites, develop trail systems, and advise on recreational needs. The Park Service cooperates with partners to extend the benefits of natural and cultural resource conservation and outdoor recreation throughout this country and the world.
www.nps.gov • **Conference Sponsor**



The story of the **Santa Ynez Band of Chumash Indians** is a story of hope, optimism and success. We are looking ahead for the well-being of the next generations as we honor our heritage and traditions today. Our reservation in the Santa Ynez Valley is the home to tribal families, and to our tribal government and the Chumash Casino Resort. But our reservation also is home to a dream that started many years ago with our ancestors. Their spirit will continue far into the future because of the actions we are taking in the present.
www.santaynezchumash.org • **Conference Supporter**



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www.vhb.com • **Conference Supporter**



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www.hitachiconsulting.com • **Conference Supporter**

The George Melendez Wright Student Travel Scholarships

The George Melendez Wright Student Travel Scholarships were created in 2005 to encourage students from diverse ethnic and cultural backgrounds to participate in our biennial conference and develop an interest in the conservation and preservation of parks, protected areas, and cultural sites worldwide. Scholarship recipients have the opportunity to participate in conference sessions and learning activities, as well as network with peers and professionals from a variety of disciplines in protected areas conservation. The GWS extends a special thanks to the National Park Service for helping realize the vision of bringing a diverse and talented student pool to the George Wright Society Conference. We are pleased to welcome all the Student Travel Scholarship recipients to the conference. We are indebted to Timia Thompson for coordinating scholarship-related activities. www.georgewright.org/gmwsts

The Indigenous Participant Travel Grant Program

The George Wright Society organizes the Indigenous Participant Travel Grant Program to support the participation of Indigenous people at these conferences. The interface between Indigenous interests and protected areas is highly important; to have genuine and critically enriching dialogue, there must be face-to-face engagement between Indigenous and non-Indigenous people. This dialogue can lead to multi-directional learning, improved relationships, new conservation strategies, and expanded vision and planning. The GWS hopes to facilitate this dialogue by offering these travel grants. We extend a warm welcome to all Indigenous Participant Travel Grant Awardees. Our thanks go to the National Park Service and the Santa Ynez Band of Chumash Indians for supporting the program.

We also want to thank our Indigenous Involvement Working Group for the many hours of discussion and planning that went into creating the travel grant program, the Indigenous-themed Focus Session, and numerous concurrent sessions that highlight Indigenous achievements and issues. Members of the Working Group are: Nathalie Gagnon and Melia Lane-Kamahele (co-chairs), Angela Mooney D'Arcy, Freddie Romero, and Corinna Gould. We also appreciate the efforts of Fawn YoungBear-Tibbetts in coordinating Indigenous Film Night. www.georgewright.org/nptg

Daily Schedule of Events

Sunday, March 29

Today's Continuing Events

>>> Registration • 12:00 noon–10:00 pm • First Floor Atrium area

We urge you to register on Sunday if at all possible — that way you beat the Monday-morning rush. GWS personnel will be available at the registration area throughout the week to answer your questions and help with any problems.

>>> Poster/Exhibit Set-up • 8:00 pm–10:00 pm • Exhibit Hall East 1 (Posters), First Floor Atrium area (Exhibits)

If you are presenting a Poster or Exhibit, please set it up as soon as you can after you check in. There will be a chart showing your assigned location.

Today's Special Events

>>> Explore John Muir National Historic Site and Port Chicago Naval Magazine National Memorial • Field Trip

Departs 9:15 am. Meet in Lobby. Advance ticket required.

>>> University of California Museum of Vertebrate Zoology and Museum of Paleontology: Behind the Scenes Tour

Departs 1:00 pm. Meet in Lobby. Advance ticket required.

>>> Meeting of Indigenous Participant Travel Grant Recipients • 7:00 pm–8:00 pm • OCC 208

All IPTG recipients will gather for an orientation/welcoming meeting.

>>> Meeting of George Melendez Wright Student Travel Scholarship Recipients & Mentors • 7:00 pm–8:00 pm • OCC 210/211

All student travel scholarship recipients and their mentors will gather for an orientation/welcoming meeting.

>>> Social Hour for IPTG & GMW Student Travel Scholarship Recipients • 8:00 pm–9:00 pm • OCC 210/211

We'll bring both groups together for an informal social hour sponsored by VHB, Inc. All conference registrants are welcome to drop in and meet the travel grant/travel scholarship recipients.

Monday, March 30

Plenary Session I • 8:00–9:30 am • Grand Ballroom DEFGH

Parks as a Key to Preventive Healthcare: The Power of Partnerships between Park and Health Professionals



Call to order / Welcome: **Nathalie Gagnon** • President, George Wright Society

Announcements: **Jan van Wagtendonk** • Member, Board of Directors, George Wright Society

Moderator/discussant: **Kristin Wheeler** • Institute at the Golden Gate

Speakers:

Mariajose Alcantara • Golden Gate National Recreation Area

Fatima Colindres • Golden Gate National Recreation Area

Raymond J. Baxter • Kaiser Permanente

Discussant:

Jonathan B. Jarvis • Director, National Park Service

Professional interest in the connections between human health and being in nature is taking off in a big way. Establishing parks as a low or no-cost preventive health choice creates an unprecedented opportunity for parks to serve new audiences, but what's really exciting is how the medical profession is beginning to embrace this concept. Healthy Parks, Healthy People and Park Rx are only two of the many programs that are exploring the link between health and parks.

The Bay Area is a leading center of innovation in this area. Our colleagues at the Institute at the Golden Gate have organized a dynamic discussion to kick off the conference. *This session will get you up to speed on some of the latest thinking about the Health/Parks connection.*



Mariajose Alcantara, a Latina Park Ranger since 2007, is part of Golden Gate National Recreation Area's Community Programs and Outreach Team. Ranger Mariajose is dedicated to outreach to new and diverse audiences through programs, hikes, fairs and festivals, in hopes of inspiring youth and people of color to grow a love and passion for the National Parks. You may find Ranger Mariajose hiking around Golden Gate National Recreation Area, singing at a campfire program, driving the Roving Ranger around the Bay Area, or leading Healthy Parks Healthy People programs the first Saturday of every month in the Presidio of San Francisco.



Fatima Colindres is an Interpretive Park Ranger at the Presidio of San Francisco. She has worked with the National Park Service since she was 24 years old. Her NPS career began with 2 years as an Environmental Intern and for the last 15 years she has been a Park Ranger. She is known for her outreach in the community bringing new audiences of all ages and backgrounds to the park. Her programs incorporate storytelling from around the world, and health and wellness. Fatima has always loved the outdoors and the healing qualities of being outdoors, therefore when she was diagnosed with Rheumatoid Arthritis and started having difficulty walking, she decided to turn a negative into a positive and create new programs that would cater to people like herself, who could not move as fast or as easily as before but still wanted to be outdoors.



Raymond J. Baxter, PhD, is Kaiser Permanente's senior vice president for Community Benefit, Research and Health Policy. Dr. Baxter leads the organization's activities to fulfill its social mission, including care and coverage for low-income people, community health initiatives, health equity, environmental stewardship and support for community-based organizations. He also leads Kaiser Permanente's work in research, health policy and diversity, and serves as president of Kaiser Permanente International.



Kristin Wheeler, Program Director at the Institute at the Golden Gate, has a background in environmental and social justice organizing and training. Kristin led the development of the Park Prescriptions pilot in the Bayview Hunters Point neighborhood in San Francisco and serves as the lead facilitator for the Healthy Parks Healthy People: Bay Area collaborative and the National Park Prescriptions Initiative. Kristin serves on the Board of Directors of the League of Women Voters of San Francisco and is a member of IUCN's World Commission on Protected Areas and the Healthy Parks Healthy People Global Task Force. Kristin holds degrees in Political Science, Geography, and Art History from Gustavus Adolphus College.

Today's Continuing Events

>>> Registration • 7:00 am–6:00 pm • First Floor Atrium area

We urge you to register on Sunday if at all possible — that way you beat the Monday-morning rush. GWS personnel will be available at the registration area throughout the week to answer your questions and help with any problems.

>>> Refreshment Breaks • 9:30 am–10:00 am • 3:30 pm–4:00 pm • First Floor Atrium area

Complimentary beverages.

>>> Concurrent Sessions • 10:00 am–6:00 pm

See the charts at the back of the Program Guide for full details.

>>> Poster/Exhibit Session • 8:00 am–10:00 pm • Exhibit Hall East 1 (Posters), First Floor Atrium area (Exhibits)

The Posters and Exhibits are available for viewing anytime.

>>> Soundscape Room • 12 noon–10:00 pm • OCC 212

Sponsored by Hitachi Consulting with technical assistance from the National Park Service Natural Sounds & Night Skies Program, "Soundscape" is a place where you can go to relax and connect with Nature through recordings of wind, water, and other natural sounds. It's a reminder of the importance of natural soundscapes in all of our lives. You can drop in anytime.

Today's Special Event

>>> Welcome to Oakland! Reception • 7:00–8:30 pm

The George Wright Society welcomes you to the Bay Area! Join us to greet old friends and meet some new ones. All registrants welcome; no tickets required but please do wear your name badge for entry. *Complimentary hot and cold hors d'oeuvres; cash bar.*

Tuesday, March 31

Plenary Session II • 8:00–9:30 am • Grand Ballroom DEFGH

Call to order / Announcements: **David Graber** • Member, Board of Directors, George Wright Society

Moderator: **Jerry Mitchell** • Vice President, George Wright Society

Watching the World Go Away: Sliding Baselines, Diminished Expectations, and the Future of Protected Places



Kathleen Dean Moore • Distinguished Professor of Philosophy Emerita, Oregon State University

A stream overflowing with salmon and bears, the crowded confetti of a coral reef — how many people alive today have ever seen an ecosystem in its full and glorious complexity? Most of us live in a stripped-down, dammed-up, paved-over, desperately impoverished landscape. Over time, this becomes the norm — the way it's always been, the way it must always be, the standard against which we measure gain and loss, gratitude and grief.

This, of course, is the problem of the sliding ecological baseline. Its result is a sliding moral baseline: we ask so little of ourselves, caught up in an astonishing disregard for the quietly vanishing creatures and landscapes. But who can grieve the loss of what they never knew? And then, almost unnoticed, comes the sliding baseline of the imagination. Who can imagine a truly healthy ecosystem, who lives in a landscape of loss and no longer notices? Even our sense of possibility has been strip-mined.

What is the role of the national parks and other protected areas in these years when the ecological baselines are falling so fast that the time has earned the name, the Sixth Extinction?



Kathleen Dean Moore is Distinguished Professor of Philosophy Emerita and co-founder and Senior Fellow of the Spring Creek Project for Ideas, Nature, and the Written Word at Oregon State University. An environmental philosopher, Moore writes about moral, spiritual, and cultural relationships to the natural world. Her most recent books are *Wild Comfort* and the co-edited volume *Moral Ground: Ethical Action for a Planet in Peril*.

Today's Continuing Events

>>> **Registration • 7:00 am–6:00 pm • First Floor Atrium area**

>>> **Refreshment Breaks • 9:30 am–10:00 am • 3:30 pm–4:00 pm • First Floor Atrium area**
Complimentary beverages.

>>> **Concurrent Sessions • 10:00 am–6:00 pm**

See the charts at the back of the Program Guide for full details.

>>> **Poster/Exhibit Session • 8:00 am–10:00 pm • Exhibit Hall East 1 (Posters), First Floor Atrium area (Exhibits)**
The Posters and Exhibits are available for viewing anytime.

>>> Soundscape Room • 8:00 am-10:00 pm • OCC 212

Sponsored by Hitachi Consulting with technical assistance from the National Park Service Natural Sounds & Night Skies Program, “Soundscape” is a place where you can go to relax and connect with Nature through recordings of wind, water, and other natural sounds. It’s a reminder of the importance of natural soundscapes in all of our lives. You can drop in anytime.

Today's Special Event

>>> Poster Spotlight Reception • 6:30 pm-7:30 pm • Exhibit Hall East 1

This evening we will host a reception in the area immediately adjacent to the posters. Presenters will be standing by so you can ask questions. It’s the perfect time to cruise the Posters and Exhibits! All registrants welcome; no tickets required but please do wear your name badge for entry. *Complimentary dry snacks; cash bar.*

Wednesday, April 1

Focus Sessions • 8:00–9:30 am

Philanthropy, Place, Conservation, and Culture • 8:00–9:30 am • Grand Ballroom AB



Welcome and introduction: **Melia Lane-Kamahale** (Native Hawaiian) • National Park Service / GWS Indigenous Involvement Working Group

Chair of session: **Angela Mooney D'Arcy** (Acjachemen) • Pacific RAN Weaver, Native Americans in Philanthropy, GWS Indigenous Involvement Working Group

Speakers:

Corrina Gould

Julia Sizek • Native American Land Conservancy

This session will discuss current work focused on the intersection between place-based philanthropy initiatives, ecologically-based land and water conservation efforts, and Indigenous peoples' use of conservation tools such as land trusts to protect sacred places and cultural sites in perpetuity.

The US National Park Service Centennial:

Next Generation of Visitors, Supporters & Advocates • 8:00–9:30 am • Grand Ballroom DE



Welcome and introduction: **David Graber** • GWS Board Member

Chair of session: **Alexa Viets** • Centennial Coordinator, National Park Service

Speakers:

Kelly Coy • Physical Scientist, NPS Biological Resource Management Division

Colleen Flanagan Pritz • Ecologist, NPS Air Resources Division

NPS Centennial Coordinator, Alexa Viets, will share how the National Park Service will use its 100th anniversary to create the next generation of visitors, supporters and advocates for all public lands. Centennial programs are being framed to reach every 4th grader in the country, a national public awareness campaign and targeted outreach in urban areas, to name just a few efforts underway. *Alexa will present brief highlights on national plans, and will then be joined by panelists to discuss models of success and challenges for connecting our work to a younger generation.*

The World Parks Congress' Promise of Sydney—

Implications for North America's Protected Areas • 8:00–9:30 am • Grand Ballroom FGH



Welcome and introduction: **Lynn Wilson** • GWS Board Member

Co-chairs of session: **Ernesto Enkerlin Hoeftlich** • Chair, IUCN World Commission on Protected Areas

Mike Wong • Vice Chair, North American Region, IUCN World Commission on Protected Areas / Parks Canada Agency

Speakers:

Stephen Woodley • IUCN, WCPA/SCC Joint Task Force on Biodiversity and Protected Areas

Karen Keenleyside • Parks Canada Agency

Elaine Hsiao • IUCN WCPA Young Professionals

Leigh Welling • U.S. National Park Service

David Reynolds • IUCN, Global Protected Areas Programme

Andrew Rhodes Espinosa • Comisión Nacional de Áreas Naturales Protegidas, Mexico (CONANP)

Lauren Wenzel • NOAA (National Oceanic and Atmospheric Administration)

Diana Allen • U.S. National Park Service

Ted Trzyna • IUCN WCPA Urban Specialist Group

Jim Barborak • Colorado State University

The IUCN Chair of the World Commission on Protected Areas (WCPA), Ernesto Enkerlin, and the Vice Chair of the WCPA North America Region, Mike Wong, invite all WCPA members and other GWS participants to a focus session on summary presentations by leaders of the 8 Streams and 4 cross-cutting themes of the World Parks Congress (<http://worldparkscongress.org/programme/streams.html>). *This will be followed by a panel discussion where all attendees can express their views on the Promise of Sydney—the global strategy document of innovative approaches and recommendations for protected areas in the next decade—and provide their perspectives on how best to proceed with its implementation.*

Today's Continuing Events

>>> Registration • 7:00 am–6:00 pm • First Floor Atrium area

>>> Refreshment Breaks • 9:30 am–10:00 am • 3:30 pm–4:00 pm • First Floor Atrium area

Complimentary beverages.

>>> Concurrent Sessions • 10:00 am–6:00 pm; 8:00 pm–10:00 pm

See the charts at the back of the Program Guide for full details.

>>> Poster/Exhibit Session • 8:00 am–10:00 pm • Exhibit Hall East 1 (Posters), First Floor Atrium area (Exhibits)

The Posters and Exhibits are available for viewing anytime.

>>> Soundscape Room • 8:00 am–10:00 pm • OCC 212

Sponsored by Hitachi Consulting with technical assistance from the National Park Service Natural Sounds & Night Skies Program, “Soundscape” is a place where you can go to relax and connect with Nature through recordings of wind, water, and other natural sounds. It’s a reminder of the importance of natural soundscapes in all of our lives. You can drop in anytime.

Today's Special Event

>>> Indigenous Film Night• 8:00 pm–10:00 pm

This popular event is open to all registrants and features short films produced by Native filmmakers and collaborators. Film is an extraordinary and vivid medium for education and communication. The IFN selections tell stories not commonly conveyed, each with its own unique voice and vision. They connect culture, land and people across generations. And they underscore the knowledge, vision, perspectives and contributions of Indigenous peoples to the caretaking of the Earth and human cultures. All registrants welcome; no tickets required but please do wear your name badge for entry. *Complimentary light refreshments.*

Thursday, April 2

Focus Sessions • 8:00–9:30 am

Merging Economic Reality with Park Stewardship:

Learning from the Presidio and Other Public/Private Models • 8:00–9:30 am • Grand Ballroom AB



Welcome and introduction: Jerry Mitchell, GWS Board Member

Chair of session: John Reynolds • Retired, National Park Service and Secretary of the Interior's Representative, Board of Directors, Presidio Trust

Speakers:

Amy Meyer • Bay Area Park Advocate and Convener, People for the Parks/Presidio

Cherilyn Widell • Consultant in Heritage Building Conservation and Reuse, Seraph, LLC

Craig Middleton • Executive Director, Presidio Trust

Katherine Arrow • Manager of Lands and Real Estate, Business Management Division, Golden Gate National Recreation Area

The Presidio is a laboratory for partnership stewardship practices in environmental restoration, historic preservation and park design. Rolf Diamant recently described it in *The George Wright Forum* as “one of the most ambitious experiments in public park-making, urban design and multi-sector cooperation anywhere in the world.” *Lessons in crafting partnerships, attracting philanthropic support and applying tax credit programs can be learned from the Golden Gate National Recreation Area, Golden Gate National Parks Conservancy, Presidio Trust and others around the country.*

Climate Change Adaptation isn't for Sissies • 8:00–9:30 am • Grand Ballroom DE



Welcome and introduction: David Parsons • GWS Board Member

Chair of session: Leigh Welling • National Park Service

Speakers:

Anthony Barnosky • Professor of Integrative Biology, University of California, Berkeley

Patrick Gonzalez • Climate Change Scientist, National Park Service

Joshua Lawler • Associate Professor, Forest Resources, University of Washington

Mark Schwartz • Professor, Environmental Science and Policy, University of California, Davis

With the rapidly diminishing utility of the historical range of variability in framing “desired conditions” or conservation goals, protected area managers struggle to find solid footing and direction in the world of climate change adaptation. Speakers in this panel are distinguished contributors in advancing concepts for conservation planning in a rapidly changing environment, understanding limits of tools such as vulnerability assessments, illuminating challenges and concerns regarding non-traditional strategies such as managed relocation, and alerting decision makers to the real potential for abrupt climate change. *Panelists will discuss what is different about planning for conservation in a rapidly changing environment; adaptation strategies over different temporal and spatial scales; key issues associated with managed relocation; and approaches to establish an early warning system for tipping points in order to anticipate surprises.*

Inspiring a New Generation: Strategies for Transformational Change in Relationships for Youth, Nature, and Parks • 8:00–9:30 am • Grand Ballroom FGH



Welcome and introduction: Lynn Wilson • Member, GWS Board of Directors

Chair of session: Alan Latourelle • Chief Executive Officer, Parks Canada Agency

Co-chair and facilitator: Karen Keenleyside • Parks Canada Agency

To build support for parks and other protected areas into the future we must ensure that young current and future leaders across all sectors of society care about nature and support its conservation. Fundamental to achieving this goal is ensuring that young people have the experiences in nature, particularly in childhood, that lead to deep life-long personal connections with nature. We must also empower young people in decision-making so that they can be current and future leaders for change. This focus session will draw on the outcomes from the Inspiring a New Generation stream of the 2014 IUCN World Parks Congress to identify key strategies for connecting young people with nature and empowering them to be agents of positive change. *An introductory presentation will be followed by a facilitated discussion of strategic and practical steps that can be taken to ensure that our planet's future leaders are parks supporters.*

New Directions in Interpretation • 8:00–9:30 am • Grand Ballroom C



Welcome and introduction: **Matt Browning** • Graduate Student Liaison to the GWS Board
Chair of session: **Julia Washburn** • National Park Service

Speakers:

Milton Chen • Senior Fellow, The George Lucas Educational Foundation
Lotte I. Lent • Assistant Director, The George Washington University
Theresa G. Coble • Associate Professor, Stephen F. Austin State University

The National Park Service (NPS) launched its first park website in mid-1990s. Since then, added to the mix are a range of social media platforms, mobile applications, and distance and online learning. The enormous educational opportunities created by technological advances are amplified by the recognition that formal education is just one piece of the learning puzzle. Learners are looking for personalized experiences driven by their interests, and learning can occur at any time and in any place. Learners take these experiences and attach them to their educational infrastructure while creating their own understanding. This type of engagement will become even more prevalent as a generation brought up with Facebook and other social media enter into the civic dialogue. *This session will explore the characteristics and needs of the 21st-century learner and examine how technology helps meet those needs through the perspectives of experts in education technology and learning.*

Plenary Session III • 5:30 pm–6:30 pm • Grand Ballroom DE



One World: North American Park Leaders Respond to “The Promise of Sydney”... and Prepare for 2016 World Conservation Congress

Moderator: Brent Mitchell • QLF/Atlantic Center for the Environment

Panelists:

Alan Latourelle • Chief Executive Officer, Parks Canada Agency
Ernesto Enkerlin Hoefflich • Chair, IUCN World Commission on Protected Areas

The year 2016 will be momentous for parks and protected areas in the USA. It ushers in the second century of the US National Park Service and brings the world's largest conservation event to the United States for the first time (the World Conservation Congress, organized by IUCN, the International Union for Conservation of Nature, to be held in Honolulu, Hawai`i, September 2016). This closing plenary will look to the future of parks and protected areas in North America. Panelists will comment on “The Promise of Sydney”—the findings of the recent, decadal World Parks Congress. *The speakers will discuss parallels to national agendas for the next year, give us some of their initial thoughts about the upcoming World Conservation Congress, and reflect on the future of national parks and protected areas in the coming decade, and beyond.* (Speaker bios below.)



Since joining the Canadian federal government in 1983, **Alan Latourelle** has occupied positions of increasing responsibility in the field of corporate services, strategic planning, portfolio affairs, policy and operational program delivery. In 1997, Latourelle was appointed assistant deputy minister, Department of Canadian Heritage. He then joined Parks Canada as director general, Western and Northern Canada, and in 1999 became chief administrative officer before being named chief executive officer in 2002.



Ernesto Enkerlin Hoefflich chairs the International Union for Conservation of Nature's World Commission on Protected Areas, a global volunteer network of protected area professionals. Enkerlin previously helmed CONANP, Mexico's national protected area agency.

Today's Continuing Events

>>> Registration • 7:00 am–5:00 pm • First Floor Atrium area

>>> Refreshment Breaks • 9:30 am–10:00 am • 3:00 pm–3:30 pm • First Floor Atrium area

Complimentary beverages. Please note that the afternoon break begins a half-hour earlier today, i.e., at 3:00 pm instead of 3:30.

>>> Concurrent Sessions • 10:00 am–5:30 pm

See the charts at the back of the Program Guide for full details. *Please note that the afternoon sessions begin a half-hour earlier today, i.e., at 1:00 pm instead of 1:30.*

>>> Poster/Exhibit Session • 8:00 am–11:00 am • Exhibit Hall East 1 (Posters), First Floor Atrium area (Exhibits)

This morning is last call for viewing the Posters and Exhibits! Presenters need to remove their Posters/Exhibits starting at 11:00 am and finish removal by 12 noon.

>>> Soundscape Room • 8:00 am–2:00 pm • OCC 212

Sponsored by Hitachi Consulting with technical assistance from the National Park Service Natural Sounds & Night Skies Program, "Soundscape" is a place where you can go to relax and connect with Nature through recordings of wind, water, and other natural sounds. It's a reminder of the importance of natural soundscapes in all of our lives. You can drop in anytime.

Today's Special Event

>>> Gala Reception: George Melendez Wright—Celebrating a Living Legacy, and Presentation of the 2015 George Wright Society Awards • 7:00 pm–8:30 pm • Junior Ballroom (second floor)

The main portion of the conference program closes with a gala celebration of the legacy of George Melendez Wright, who was born and raised in the Bay Area and graduated from the University of California at Berkeley. Author Jerry Emory will present a short tribute to Wright, and we will welcome members of the Wright family and other special guests who are in attendance. Then we will have the presentation of the 2015 GWS Awards. Advance ticket required. *Complimentary hors d'oeuvres; cash bar.*

Friday, April 3

Today's Special Events

>>> Presidio Restoration Tour and Heritage Center • Field Trip

Departs 8:00 am. Meet in Lobby. Advance ticket required.

>>> Trail Maintenance in the Oakland Hills (hosted by East Bay Regional Park District) • Service Project

Departs 8:00 am. Meet in Lobby. Advance ticket required.

>>> Grafting Historic Fruit Trees at John Muir National Historic Site (hosted by the National Park Service) • Service Project

Departs 8:00 am. Meet in Lobby. Advance ticket required.

>>> Fuels Management at the East Bay Regional Parks – Showcasing Tilden Park • Field Trip

Departs 8:30 am. Meet in Lobby. Advance ticket required.

>>> Point Reyes National Seashore: Managing a Land in Motion • Field Trip

Departs 8:30 am. Meet in Lobby. Advance ticket required.

>>> Redwood Creek Watershed: Restoration and Collaboration • Field Trip

Departs 9:00 am. Meet in Lobby. Advance ticket required.

>>> Rosie the Riveter / World War II Home Front National Historical Park • Field Trip

Departs 10:00 am. Meet in Lobby. Advance ticket required.

Concurrent Sessions • Monday, March 30 • 10:00a–12:00p

		10:00–10:20	10:20–10:40	10:40–11:00	11:00–11:20	11:20–11:40	11:40–12:00
Concurrent 1 Grand Ballroom AB Session format: Invited Speakers	7895 / Climate Change Adaptation in the NPS: Emerging Approaches for Resources, Infrastructure, Operations, and Visitor Experience • Nicholas Fischelli & Gregor Schuurman, chairs	Taking stock of NPS climate change adaptation: trends, achievements, and lessons learned • Gregor Schuurman	Climate change adaptation for fire-adapted landscapes in the Southern Sierra Nevada • Chaitisse Sydoniak	Coastal parks in a seascape of climate change planning in the San Francisco Bay Area • Sarah Allen	Enhancing Adaptive Capacity in Rare/Endangered Native Hawaiian Plant Populations in a Changing Climate • Jeffrey Mallinson	Continuing NPS climate change adaptation: building capacity, harnessing partnerships, and refining approaches • Nicholas Fischelli	Q&A
Concurrent 2 Grand Ballroom DE Session format: Panel Discussion	7662 / Sustainable Transportation in the National Parks • Steve Lawson, chair	Sustainable Transportation in the National Parks, Part I: Emerging Innovations on Best Practices • Steve Lawson	Transportation-related Indicators and Standards of Quality • Peter Pettengill	Modeling Relationships among Transportation, Visitor Use, and Management • Jeff Hallo	Understanding Relationships Between Park Transportation and Ecological Conditions: A Synthesis of Recent Work • Chris Monz	Understanding Relationships Between Transportation-related Noise and Visitors' Experiences in Parks and Protected Areas • Peter Newman	Q&A
Concurrent 3 Grand Ballroom FGH Session format: Panel Discussion	7696 / The Indigenous Cultural Landscape Approach in the Chesapeake Bay Watershed: Update and Next Steps	Moderator: Brenda Barrett Panelists: Julia A. King • Applying the Indigenous Cultural Landscape Approach in the Nanticoke Peninsula of Maryland Brenda Wyatt • Thoughts on the Indigenous Cultural Landscape and the National Register Landscape Initiative	Attendees will be challenged to consider potential limitations of "conventional" transportation planning in national parks and the feasibility of new approaches being developed and applied.				
Concurrent 4 Grand Ballroom C Session format: Sharing Circle	7725 / National Park Service Servicewide Emeritus Volunteer Program	Convenor: Lynne Murdock	Learn how the Indigenous Cultural Landscape concept has been applied in the Chesapeake Bay watershed and what might be in store for the future.				
Concurrent 5 OCC 202 Session Format: Workshop	7641 / Urban Matters: A Collaborative Path to Relevancy	Workshop Leaders: Brent Mitchell Chris Spence Delia Clark Peggy O'Dell (invited)	Increase the capacity of existing NPS Emeritus Volunteer Program to provide benefit for urban youth and create an inclusive program reflective of today's demographics.				
						Session attendees will be introduced to the NPS Urban Agenda, invited to join the Community of Practice, and brainstorm how to make it most effective.	

Concurrent Sessions • Monday, March 30 • 10:00a–12:00p

		10:00–10:20	10:20–10:40	10:40–11:00	11:00–11:20	11:20–11:40	11:40–12:00
Concurrent 6 OCC 203 Session Format: Workshop	8056 / Developing a Collaborative Partnership to Advance US Participation in the World Network of Biosphere Reserves	Workshop Leaders: Brett Wright Tom Gilbert Elizabeth Baldwin					
		Workshop organizers will describe the objectives of the Censo-N GWS-Biosphere Reserves partnership, inviting attendees to participate in its implementation through a post-conference working group.					
Concurrent 7 OCC 208 Session Format: Panel Discussion	7974 / Recreation, Values and Stewardship: Rethinking Why People Engage in Pro-Environmental Behaviors in Protected Areas	Moderators: Carena van Riper & Ryan Sharp Panelists: Wade Vagias • Predicting behavioral intentions to comply with recommended Leave No Trace practices Ken Bagstad • Economics, ecosystem services, and protected areas – monetary and non-monetary perspectives Jane Kwenye • Pro-sustainable behaviors and loyalty: Exploring factors that influence protected areas and a Zambian tourism market Carena van Riper • Connecting concepts of place and value: The case of Channel Islands National Park Ryan Sharp • An investigation of value orientations and leave No Trace behaviors among white water rafters					
		Attendees will engage with the value concept and learn about various processes that shape people's decisions to engage in activities that benefit the environment.					
Concurrent 8 OCC 210/211 Session Format: Contributed Papers	7000 / Marine Ecology • Steven Franklin, chair	7527 / Quantification of microplastics in southeastern coastal and marine parks • Samantha Ladewig	7679 / Rocky intertidal monitoring at Channel Islands National Park responds to challenges of the 21st century • Stephen Whitaker & Pete Raimondi	7982 / Monitoring data applied to mitigating a coral/livore outbreak in the National Park of American Samoa • Sheila McKenna et al.	7974 / Trends in intertidal pH on the open coast of Washington State: Implications for Ocean Acidification • Steven Franklin & William Baccus	7868 / Japanese tsunami debris response efforts and impacts in National Parks • Tahzay Jones et al.	7916 / The Ocean is Different: Coastal Variability and limits to Climate Change Detection in Glacier Bay, Alaska • Lewis Sherman et al.
		Attendees will learn about recent advances in pollution prevention and detection, monitoring, and climate change response.					
Concurrent 9 OCC 201 Session Format: Contributed Papers	7001 / Monitoring Fire and Managing its Effects • Dusty Vaughn, chair	7724 / Long-term fire effects data and research opportunities • Phillip van Mantgem & MaryBeth Keifer	7740 / Prioritizing lightning ignitions at Yosemite National Park with a biophysical and socio-politically informed tool • Kent van Wagendonk & Gus Smith	7723 / Forest Restoration at Redwood National Park: Exploring Silvicultural and Prescribed Fire Alternatives to Second-Growth Management • Eamon Eriger et al. (Presenter: P. van Mantgem)	7769 / Hillslope erosion and water quality from the Rim Fire, Sierra Nevada, CA • Lauren Austin et al.	7888 / FF: A monitoring database linking science and management • MaryBeth Keifer et al. (P. van Mantgem, presenter)	9070 / Rim Fire Recovery Update • Dusty Vaughn
		Learn about expanding the use of existing fire monitoring databases, using decision-making tools, positive effects, and restoration techniques.					
		Collaboration Sessions bring attendees together to work on a specific project. At the end of the session, the organizers will give attendees the opportunity to help complete the project.					
		Compass Sessions ask two questions: "Where are we?" and, "Where do we want to go?" These sessions ask the audience to reflect on where we should go from here, with a range of possible directions.					
		Challenge Sessions ask members of the audience to question their assumptions. Attendees emerge from the session with their critical thinking faculties fully engaged.					
		Update Sessions bring attendees together to fill them in on the latest developments with regard to an project, program, or issue. Attendees emerge from the session fully up-to-date on the topic.					
		Skills Sessions are hands-on training opportunities that increase the capacity of attendees to solve a specific problem. Attendees leave with new skills applicable to the problem.					

Concurrent Sessions • Monday, March 30 • 1:30–3:30p

		1:30–1:50	1:50–2:10	2:10–2:30	2:30–2:50	2:50–3:10	3:10–3:30
Concurrent 10 Grand Ballroom AB	9000 / Park/Health Partnerships in Practice Session Format: Panel Discussion	Moderator: Chris Spence Panelists: Dr. Curtis Chan Mona Koh Jim Wheeler Kristin Wheeler					
Concurrent 11 Grand Ballroom DE	8069 / Cultural Resources and Climate Change Session Format: Panel Discussion	Moderator: Stephanie Toothman Panelists: Stephanie Toothman • Overview of major policy issues Shaun Eyring • Policy and decision-making per charters Brian Goeken • Guidance, Secretary's Standards Bob Page • Cultural landscapes management Meia Lane-Kamahie • Climate change and indigenous peoples					
		<i>This session will bring together panelists to discuss issues, strategies, and actions currently underway to address the "three essential questions" of climate change.</i>					
Concurrent 12 Grand Ballroom FGH	7968 / Recent Developments in the Use of Unmanned Aviation Systems (UAS) for Scientific Research Session Format: Panel Discussion	Moderator: Karen Treviño Panelists: James Traub • Current rules and regulations for UAS use including the DOI/FAA MOU on UAS Mike Story • Case Studies and Lessons Learned from UAS Missions Flown for Scientific Research Bruce Quirk • The View From Above - The Federal Interagency Roundtable Guy Adama • Perspectives on UAS in Wilderness Benjamin Houmann • Benefits and Limitations of UAS Technology for Scientific Applications David M. Bird & Matthew A. Burgess					
		<i>Explosive growth in interest and a rapidly changing regulatory landscape; substantial uncertainty within the scientific community; benefits, concerns and limitations that must be considered.</i>					
Concurrent 13 Grand Ballroom C	7773 / Man and Nature at 150 • Christina Marts, chair Session Format: Invited Speakers	Speaker: David Lowenthal Respondents: Nora Mitchell Rolf Diamant					
		<i>"Man and Nature" by George Perkins Marsh was arguably the first environmental book published in North America. What can we learn from the events that spurred Marsh to write his warning?</i>					
Concurrent 14 OCC 202	New Horizons in Engaging Youth • Matt Browning, chair Session Format: Lightning Presentations	7779 / Transformative and Inclusive: Rethinking Youth Engagement in Nature and Conservation • Fernando Villalba, Moderator Presenters: Charles Thomas, Antonio Solorio, Rona Zollinger, Fernando Villalba					
		<i>This discussion proposes to have the audience think deeper and challenge their own assumptions about how to successfully provide meaningful youth engagement opportunities.</i>					
		7578 / Outside Your Door: Urban Youth Media Producers Create New Connections to the Land • Moderator: Nina Roberts Presenters: Nancy "Sami" Reist • Kristen Pozzoboni • Tanvi Sikand • Villy Wang • Jose Alfaro					
		<i>We discuss creative methods for engaging diverse young people with production of media, by youth for youth, as a vehicle connecting them with outdoor spaces.</i>					

Concurrent Sessions • Monday, March 30 • 1:30–3:30p

		1:30–1:50	1:50–2:10	2:10–2:30	2:30–2:50	2:50–3:10	3:10–3:30
Concurrent 15 OCC 203 Session Format: Invited Speakers	7635 / The History of Geology and Geologic Resource Management in the U.S. National Parks • Vincent Santucci & Ken Maberry, chairs	Preserving the Geologic Resources and Geological Landscape at Yellowstone National Park • Lee Whittlesey	Hands-on Geologic Resource Management: Watershed Restoration at Redwood National Park • Dave Steensen	A Historical Perspective on Cave and Karst Management within the National Park Service • Dale Pate	Preserving Fossils in the National Parks: A History • Vincent L. Santucci	Born of Fire - The History of Volcanology in the National Park System • Laura C. Walkup	Q&A
Concurrent 16 OCC 208 Session Format: Contributed Papers	7002 / Responding to Invasive Plant Species • Daniel Winkler, chair	7946 / Sources of invasive plant introductions in Yosemite: When 4 million visitors are not the problem • Garrett Dickman	7954: Restoration of California grassland through intensive yellow starthistle control and native perennial bunchgrass reintroduction • Brent Johnson	7596 / The complex future of parks: effects of climate change on invasive species in protected ecosystems • Daniel Winkler et al.	7861 / A phenological detectability calendar for invasive plant species • Eric Wubel et al.	8951 / Restoring the native Live Oak Forest in 1,000 acres of Alameda County, CA • David Strongk	OPEN
Concurrent 17 OCC 210/211 Session Format: Panel Discussion	7730 / The Way Forward for California State Parks; Implementing the Findings of the Parks Forward Commission	Moderator: Cary Hart Panelists: Ken Wiseman Steve Szalay Cary Hart Hawk Rosales	Controlling invasive plant species is among the most difficult problems in resource management; this session will provide examples of new ideas and thinking.		Discussion of the findings and implementation of the California Parks Forward Initiative, addressing financial, operational, and cultural challenges facing State Parks.		
Concurrent 18 OCC 201 Session Format: Contributed Papers	7003 / Modeling: Projects, Predictions, and Precautions • Ann Rodman, chair	7764 / Yellowstone National Park's Climate Change Program I: Analysis Tools that Prevent Information Overload • Mike Terek & Ann Rodman	7752 / Yellowstone National Park's Climate Change Program II: Extracting useful information from piles of data • Ann Rodman & Mike Terek	8039 / Information Technology Based Wisdom Model of National Park Management • Chengzhang Wu	7768 / Laws of nature, historical contingency, and the wolves and moose of Isle Royale National Park • Rolf Peterson & John A. Yuretich	OPEN	OPEN
Collaboration Sessions bring attendees together to work on a specific project. At the end of the session, the organizers will give attendees the opportunity to help complete the project.							
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Challenge Sessions ask members of the audience to question their assumptions. Attendees emerge from the session with their critical thinking faculties fully engaged.							
Skills Sessions are hands-on training opportunities that increase the capacity of attendees to solve a specific problem. Attendees leave with new skills applicable to the problem.							

Concurrent Sessions • Monday, March 30 • 4:00–6:00p

		4:00–4:20	4:20–4:40	4:40–5:00	5:00–5:20	5:20–5:40	5:40–6:00			
Concurrent 19 Grand Ballroom AB Session Format: Invited Speakers	7616 / The Many Consequences of Seeing "Nature" • Terence Young, chair	'A Needful Social Force': The National Conference on Outdoor Recreation and Leisure as Nation Building • Peter Blodgett	Renewing Our Faith and Ideals: Christian Nationalism and the Origins of the Pacific Crest Trail • Terence Young	A National Park in the Wasteland: American and NPS Perception of the Desert • Lary M. Dilasver	Where Did All the People Go?: Using Census Data to Track Out-Migration during Park Creation • Katie Algeo & Collins Elie	A Long Shadow: The Continuing Influence of Stephen Mather and Horace Albright on the NPS • William C. Tweed	Q&A			
Concurrent 20 Grand Ballroom DE Session Format: Panel Discussion	7697 / Resource Stewardship Strategies: a practical approach for all parks	Moderators: Chris Church Panelists: Patrick Grgersen • Introduction to RSSs TBD: RSSs at parks - Lessons Learned TBD: Natural resource stewardship and RSSs TBD: Cultural resource stewardship and RSSs	The National Park Service will present an revised framework for developing Resource Stewardship Strategies for all parks that is based on a park's foundation document.	7704 / Wings of Change: Managing Bird Species • Charles van Riper III, chair	7878 / Spotted and barred owl monitoring in Marin County, CA • Taylor Ellis & David Press	7729 / Monitoring Landbirds in Parks: A Demographic Approach to Understanding Populations, Migratory Connectivity, and Climate Change • David Desante et al. (Presenter: Steve Albert)	7920 / Informing Coastal Resiliency: Shorebird Nest Site Selection in a Post-Storm Environment • Hanem Aboulezz	7970 / Surviving in a Toxic World: Immediate and long-term management implications for reintroduced California condors • Rachel Wolstenholme et al.	7687 / Heavy Metal Accumulation in Song Sparrows at Tumacacori National Monument • Santa Cruz River, Arizona • Charles van Riper III & Michael Lester	7986 / Making the Switch to Non-lead Ammunition: Lessons Learned and Resources Available • Scott Scherbinski & Daniel Ryan
Concurrent 21 Grand Ballroom FGH Session Format: Contributed Papers	7695 / Cultural Resources in the Next Century	Conversation Leader: Teresa Moyer	Case studies provide insights into avian demographics, responses to toxicity, and more.	8053 + 7987 / Navigating NPS Nighttime Resource and Nighttime Recreation Management • Brandi L. Smith, chair	Managers' Perceptions of Nighttime Resources and Nighttime Recreation in 314 NPS units: Designation-based analyses • Brandi L. Smith	NPS Visitors' Perceptions of Nighttime Park Environments and Importance of Night Recreation Experiences • Brandi L. Smith	Indicators and Standards of Quality for Night Sky Viewing at Acadia National Park • William Valliere	Whose Night Sky? Social Constructors of the National Park Service's Newest Natural Resource • Monika M. Derrien	7987 / Assessing Impacts to Night Skies and the Night Time Photic Environment • Frank Turina	Q&A
Concurrent 22 Grand Ballroom C Session Format: Café Conversation			Participants will contribute to a companion document to the National Park Service's Cultural Resources Challenge.							
Concurrent 23 OCC 202 Session Format: Invited Speakers			NPS nighttime recreation and resource management provides multi-perspective evaluations on protecting and enjoying parks after dark, and seeks audience input on postulated night research trajectories.							

Concurrent Sessions • Monday, March 30 • 4:00–6:00p

		4:00–4:20	4:20–4:40	4:40–5:00	5:00–5:20	5:20–5:40	5:40–6:00
Concurrent 24 OCC 203 Session Format: Invited Speakers	Tla-o-qui-aht Tribal Parks: A First Nation Network of Culturally-Managed Ecosystems • Hawk Rosales & Gisele Maria Martin, chairs	InterTribal Sinkyone Wilderness: Stewarding Ancestral Coastal Lands & Waters • Hawk Rosales	8062 / One People, One Ref: Combining Traditional Management and Modern Science for Sustainable Ocean Management Planning • Nicole Crane et al.	Q&A			
Concurrent 25 OCC 208 Session Format: Panel Discussion	8121 / Where am I going and how do I get there? Honest conversations about conservation careers	Moderators: • Matt Browning & Jennifer Thomsen Panelists: Angie Ewenden, National Park Service • Bill Johnson, Fish & Wildlife Service • Ryan Branciforte, Trailhead Labs Christy Brigham, National Park Service • Deb Wojcik, Stanford University • Gary Machlis, National Park Service and Clemson Jason Morris, NatureBridge • Jenn Fox, Bay Area Open Space Council • Jim Weigand, Bureau of Land Management Lisa Norby, National Park Service • Matt Brownlee, University of Utah • Matt Dawson, Geological Society of America Myron Floyd, North Carolina State University • Steve Lawson, Resource Systems Group	Student attendees will hear honest advice on how to find federal, academic, and non-profit jobs related to parks and protected areas, environmental studies/science, etc.				
Concurrent 26 OCC 210/211 Session Format: Contributed Papers	7005 / On the Edge of Transformation: Coastal Processes • Paula Power, chair	7975 / Using Science to Respond and Communicate Coastal Change: From Measured, to Collaborative, to Opportunistic • Mark Adams et al.	7835 / Conceptual Basis for Mapping Geomorphological Evolution in Coastal Parks • William Schmelz et al.	7843 / Technical Assistance for NPS Units Vulnerable to Sea Level Rise and Lake Level Variation • Lynda Bell	7784 / Comparing sea level rise and storm surge modeling methods for Northeast coastal national parks • Amanda Babson	7763 / Salt marsh biogeochemistry in a changing climate: the effects of extreme precipitation • Hollie Emery	7514 / Restoring coastal wetland and riparian areas while protecting archeological resources, Santa Cruz Island, Channel Islands NP • Paula Power et al.
Concurrent 27 OCC 201 Session Format: Film Screening	8109 / Better Protection for Sacred Places • Christopher McLeod & Caleen Sisk, chairs	Film Screening and Discussion: "Standing on Sacred Ground: Pilgrims and Tourists" (segments on Russia's Altai Republic & Mount Shasta in California) Speakers: Christopher McLeod • Caleen Sisk (A companion screening of other segments of the film will be offered Tuesday evening. Concurrent #58.)	Conflict between protected area managers and indigenous peoples can only be resolved with dialogue. This session furthers dialogue and nurtures partnerships that protect sacred places.				



Learning from indigenous stewardship models and perspectives on nature to deconstruct assumptions about dominant conservation paradigms, and inform more holistic directions for future conservation efforts.



Student attendees will hear honest advice on how to find federal, academic, and non-profit jobs related to parks and protected areas, environmental studies/science, etc.



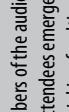
Conflict between protected area managers and indigenous peoples can only be resolved with dialogue. This session furthers dialogue and nurtures partnerships that protect sacred places.



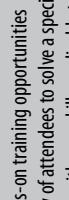
Compass Sessions bring attendees together to fill them in on the latest developments with regard to an project, program, or issue. Attendees emerge from the session fully up-to-date on the topic



Skills Sessions are hands-on training opportunities that increase the capacity of attendees to solve a specific problem. Attendees leave with new skills applicable to the problem.



Challenge Sessions ask members of the audience to question their assumptions. Attendees emerge from the session with their critical thinking faculties fully engaged.



Concurrent Sessions • Tuesday, March 31 • 10:00a–12:00p

		10:00–10:20	10:20–10:40	10:40–11:00	11:00–11:20	11:20–11:40	11:40–12:00
Concurrent 28 Grand Ballroom AB	8070 / The NPS Cultural Resource Challenge: Preserving America's Shared Heritage in the 21st Century	Speaker: Stephanie Toothman					
Session Format: Panel Discussion							
		<i>Audience will get in-depth introduction to CRC and engage in a FfQ and dialogue on how their responsibilities can address and support the CRC goals.</i>					
Concurrent 29 Grand Ballroom DE	7852 / Climate Change Refugia as a Tool for Climate Adaptation	Moderator: Deanna Dulen					
Session Format: Panel Discussion							
		<i>Panelists: Michael Dettinger • Cold-air Pooling in the Mountains—What do we need to know? Constance Millar • Refugia for Climate Adaptation: Examples from Sierra Nevada Bighorn Sheep and American Pika Alison Colwell • Cold Air Drainages as Climate Refugia for plants (and other less mobile organisms) Monica Buhler • Soda Springs Meadow as a climate change refugium: management implications for visitor use and biological communities</i>					
		<i>Managing for climate Refugia offers a potential climate adaptation strategy for transitions or long term efforts. What are the opportunities and challenges of implementation?</i>					
Concurrent 30 Grand Ballroom FGH	6999 / Innovative Uses of Technology • Matthew Brownlee, chair	7617 / Engaging Local Educators: Using Geospatial Technology to Explore Current Park Management Themes	7609 / Using GPS Visitor Tracking to inform sign placement in high-use recreation areas • Kathryn White & Matthew T.J. Brownlee	7816 / A novel application of GPS and sensor data exploring micro-level displacement among Yosemite wilderness visitors • Susan Izrairy & Troy Hall	7774 / Japanese American Confinement Sites: Digitally Reconstructing an Erased History • Katia Chaterji	7640 / (De)Colonizing Canadian Cultural Heritage Management: Using Collaborative Geomatics to Empower and Protect Indigenous Cultural Heritage • Julia Stevens et al.	8975 / #SharetheChair: A #RedChair Revolution for Visitor Engagement • Fred Sheppard
Session Format: Contributed Papers							
		<i>Explore a range of outside-the-box applications of tech — both "high" and "low" — to park research, management, and education.</i>					
Concurrent 31 Grand Ballroom C	7691 / Creating a Culture of Safety within National Park Service Field Research	Conversation Leaders: Daniel George Alice Chung-MacCoubrey Gordon Dicus Mark Huff Ryan Monello Stacy Ostermann-Kelm • Nita Tallent					
Session Format: Café Conversation							
		<i>Foster communication between groups confronting similar issues in order to share innovations and key observations that stand to improve safety performance.</i>					
Concurrent 32 OCC 202	7874 / Achieving Effective Stewardship by Making the Shift from Traditional to Collaborative Education Program Development	Moderator: Cris Constantine					
Session Format: Panel Discussion							
		<i>This session challenges participants to rethink traditional NPS approaches to resource education by exploring place-based service learning co-created with teachers to achieve common goals.</i>					

Concurrent Sessions • Tuesday, March 31 • 10:00a–12:00p

		10:00–10:20	10:20–10:40	10:40–11:00	11:00–11:20	11:20–11:40	11:40–12:00
Concurrent 33 OCC 203 Session Format: Contributed Papers	7006 / Widening Challenges to Water Quality • David Sharow, Chair Session Format: Panel Discussion	7621 / Wilderness Water Quality in Yosemite National Park: Effects of Backpackers and Stock Use • Harrison Forrester et al.	7622 / E. coli Contamination of the North Fork Virgin River upstream of the Zion Narrows • David Sharow	7815 / Hormones, Pharmaceuticals and other Contaminants of Emerging Concern in Water and Sediment of the USNPS • Paul Bradley et al.	7782 / An Assessment of Stormwater Project Improvement Opportunities at Santa Monica Mountains NRA (SAMO) • Felicia Federico & Christy Brigham	7623 / Implementation of the Zion National Park Water Rights Settlement Agreement, Eighteen years after Adoption • David Sharow & Jeff Hughes	OPEN
Concurrent 34 OCC 208 Session Format: Panel Discussion		Find out about the expanding range of impacts on water quality that managers are dealing with, from the old (recreational use) to the new (pharmaceuticals).		Moderators: Jerry Mitchell & Steve Shackleton Panelists: Gary Davis • Remaining current in your science, scholarship, and networking, and building credibility Steve Shackleton • Leveraging protected areas as economic generators, to reduce conflict and promote cooperation Jan van Wagtendonk • Keeping the research going Brett Wright • Partnering with universities Doug Morris • Global parks, global collaborations, and shared global solutions			
Concurrent 35 OCC 210/211 Session Format: Panel Discussion		8038 / Breakout Thinking in Difficult Times	Moderator: Jonathan Putnam Panelists: Herbert Meyer • From Sister Parks to Family Parks: Exploring New Concepts to Network Common Themes Darla Sidles • U.S.-Mexico Sister Parks: Protecting Shared Resources and Heritage Ben Bobowski • Rocky Mountain National Park's International Partnerships Russell Galipeau Carol Mitchell	Audience members will be challenged to move past any defeatism they might feel regarding current challenges, and explore ways to advance, remain current, address issues.			
Concurrent 36 OCC 201 Session Format: Contributed Papers		7675 / Sister Parks — Sharing Lessons Learned and Exploring New Opportunities in Developing Effective International Partnerships	Moderator: Jonathan Putnam Panelists: Herbert Meyer • From Sister Parks to Family Parks: Exploring New Concepts to Network Common Themes Darla Sidles • U.S.-Mexico Sister Parks: Protecting Shared Resources and Heritage Ben Bobowski • Rocky Mountain National Park's International Partnerships Russell Galipeau Carol Mitchell	As "Sister Parks" become an important way NPS engages internationally, this session will address how to make these partnerships more effective, mutually beneficial and strategic.			
		7007 / The Little (and Often Overlooked) Things that Run the World: Insects • William Merkle, chair	7672 / Phenology of black cherry and eastern tent caterpillars: The impact of global climate change • Mariana Abrao & John T. Lill	7948 / Evaluating restoration methods for an endangered butterfly • William Merkle et al.	7990 / Native bee biodiversity in national parks: essential, beautiful, and hidden • Ann Rodman et al.	7663 / Pollinator diversity in northern and high elevation parks: research and outreach • Jessica Rykken	7710 / The Washington Cascades Butterfly Project – Monitoring Subalpine Butterflies as Indicators of Climate Change • Regija Rochefort
		Arguably, the most important animals on the planet are the ones under our feet (or buzzing through the air); this session explains why.		8922 / Invertebrates Everywherel Using Collaborative Citizen Science to Document 5,000 Species in an Urban National Park • Eric Oberg			
		Collaboration Sessions	bring attendees together to work on a specific project. At the end of the session, the organizers will give attendees the opportunity to help complete the project.	Compass Sessions	ask two questions: "Where are we?" and, "Where do we want to go?" These sessions ask the audience to reflect on where we should go from here, with a range of possible directions.	Update Sessions	bring attendees together to fill them in on the latest developments with regard to an project, program, or issue. Attendees emerge from the session fully up-to-date on the topic.
		Challenge Sessions	ask members of the audience to question their assumptions. Attendees emerge from the session with their critical thinking faculties fully engaged.	Skills Sessions	are hands-on training opportunities that increase the capacity of attendees to solve a specific problem. Attendees leave with new skills applicable to the problem.		

Concurrent Sessions • Tuesday, March 31 • 1:30–3:30p

		1:30–1:50	1:50–2:10	2:10–2:30	2:30–2:50	2:50–3:10	3:10–3:30
Concurrent 37 Grand Ballroom AB	Session Format: 	8085 +7703 / From wilderness to city edge: The role of urban protected areas in metropolitan regions and protected area systems • Chris Spence, moderator	Ted Tiryyna: Urban protected areas: A global perspective Mike Walton: Near wilderness and its relevancy to our nations' parks systems Lynn Wilson: Necessary attributes of local decision-making that achieve positive outcomes for regional nature conservation, citing several North American examples Annie Burke: The Bay Area's Protected Lands and Changing Demographics Jeff Ward: Planning for a System of Regional Protected Areas in the Capital Region of British Columbia Robert Doyle: Using park partnerships to keep parks relevant to urban communities Q&A				
Concurrent 38 Grand Ballroom DE	Session Format: Invited Speakers	7884 / Renewable Energy Development Case Studies and Applications for Enhanced Resource Protection • Sarah Quinn, chair	Characterizing Tribal Cultural Landscapes for resource preservation and protection during renewable energy development • Valerie Grussing	Utilizing visual impact evaluation for offshore renewable energy development in protection of National Seashore viewsheds • Mark Meyer	Landscape Alteration: Assessing Visitor Impacts from Wind Energy Development surrounding Southwestern U.S. National Parks • Susan McPartland	Rethinking mitigation: A Case Study on Mitigating Solar Development near Joshua Tree National Park • Andrea Compton	Utilizing Facilitated Dialogue to Interpret Energy Development for the Public • R. Sky McClain Q&A
Concurrent 39 Grand Ballroom FGH	Session Format: Panel Discussion	7912 / When is wildlife in national parks conserved? •	Moderators: Scott Gende & Guy Adema Panelists: Grant Hilderbrand • Science in a landscape shaped by qualitative guidance and emotion: Bear baiting on Alaskan parks Joshua Schmidt • Coping with wolf control: making management decisions based on park values Scott Gende • When are humpback whales conserved in Glacier Bay?				
Concurrent 40 Grand Ballroom C	Session Format: Café Conversation	7887 / How can the National Park Service use healthy outdoor recreation to become relevant to more Americans? •	Conversation Leaders: Jennifer Stein Stephanie Tepperberg Alan Turnbull	For park managers to effectively 'conserve' wildlife there must first be definitions of what constitutes 'conserved'. Are these definitions based on science or personal values?			
Concurrent 41 OCC 202	Session Format: Panel Discussion	7827 / Making connections: Linking heritage of agricultural landscapes with community engagement and protected area conservation •	Moderator: Nora Mitchell Panelists: Christina Marts • Sustainable forestry as a strategy for cultural landscape conservation Bob Page • Partnerships for sustaining agriculture at Martin Van Buren National Historic Site: Developing management guidelines Nancy Rottle • Sustaining agriculture at Ebey's Landing National Historical Reserve: Reflections on progress and challenges Brenda Barrett • Innovative ideas to recognize the cultural and heritage values of agricultural landscapes Nora Mitchell • Another look at agricultural landscapes: Linking heritage values, community engagement, and sustainability	Discuss how the National Park Service can be relevant to new generations and audiences by encouraging outdoor recreation activities that are well-managed, healthy, and fun.			
							Emerging initiatives recognizing natural and cultural heritage on agricultural landscapes demonstrate ways to engage communities, contribute to sustainable practices, and advance conservation of protected areas.

Concurrent Sessions • Tuesday, March 31 • 1:30–3:30p

		1:30–1:50	1:50–2:10	2:10–2:30	2:30–2:50	2:50–3:10	3:10–3:30
Concurrent 42 OCC 203 Session Format: Panel Discussion	7820 / Using advanced technology for visitor use management: Debating the issues	Moderator: Matthew Brownlee Panelists: Tom Fish • Benefits and impacts of technology development and application in protected area planning, management, and effectiveness Alan Watson • Out of focus: Complexities of visitor use monitoring with technology Jeff Hallo • Striking a balance between being a late adopter of technology and an obsolete laggard Nathan Reigner • A pragmatic perspective on technology use for social science research in parks Logan Park • Elegant simplicity: technologies untrammeled protected natural areas Dan Dustin • Protecting wilderness values from the onslaught of advancing research technology	Audience members will leave with deeper understandings of the ethical, political, economic, methodological, and practical issues associated with advanced technology applications for visitor use management.				
Concurrent 43 OCC 208 Session Format: Contributed Papers	7008 / Reaching Out to a Diverse World: New Programs, Critical Issues • Denise Louie, chair	8041 / Project WISE: How a Park-Based Education Program Increases Student Learning and Community Engagement • Francis Faroc et al.	8042 / El Venado y el Aguila: Reaching Spanish-speaking Populations in the Pacific Northwest • Niel Corbett & Jack Corbett	8057 / American Innocence: Race and National Park Service Interpretation • Richard West Sellars	7959 / The Mosaics in Science Program – Supporting Diversity, Inclusion, and STEM in National Parks • Matthew Dawson & Lisa Norby	7530 / A Social Science Perspective on Sustaining Stewardship by Connecting People and National Parks • James Gramann	8026 / Finding Common Ground: A Pathway to Community Stewardship • Denise Louie et al.
Concurrent 44 OCC 210/211 Session Format: Invited Papers	7984 / Summit to Sea: Restoring and Protecting the Aquatic Biodiversity of the National Park System • John Mullschleger, chair	The Challenge of Recovering Mountain Yellow-legged Frogs in Sequoia and Kings Canyon National Parks / Danny M. Boiano & Isaac C. Chellman	The Effectiveness of Marine Protected Areas in Protecting and Promoting Exploited Species / Dave Kushner and Nicholas Shears	The Complex Case of Colorado's Cutthroat: The Greenback Cutthroat Trout in Rocky Mountain National Park / Mary Kay Watry	Eradication of Nonnative Trout and the Response of Threatened Bull Trout at Crater Lake National Park • David Hering & Mark Balkenica	An Overview of Salmon Recovery in the Elwha River Following Dam Removal • Patrick Crain & Sam Brenkman	Q&A
Concurrent 45 OCC 201 Session Format: Panel Discussion	7694 / Beyond Sydney: Achieving Our Goals for the Next Decade of Marine Conservation	Moderator: Lauren Wenzel Panelists: Lauren Wenzel • Setting the Stage: The Marine Theme at World Parks Congress — Recommendations and Relevance Stephen Woodley • Reaching Our Goals for Marine Conservation Karen Keenleyside • Engaging a New Generation Mike Wong • MPA Managers' Role in Implementing the Promise of Sydney Tim Badman • Melia Lane-Kamahela • Building Connections to the 2016 World Conservation Congress	Participants will examine recommendations and global, regional and national goals for MPAs, including a community-based approach, and provide practical, grounded advice about moving forward.				



- Compass Sessions** ask two questions: "Where are we?" and, "Where do we want to go?" These sessions ask the audience to reflect on where we should go from here, with a range of possible directions.
- Challenge Sessions** bring attendees together to question their assumptions. Attendees emerge from the session with their critical thinking faculties fully engaged.
- Collaboration Sessions** bring attendees together to work on a specific project. At the end of the session, the organizers will give attendees the opportunity to help complete the project.
- Skills Sessions** are hands-on training opportunities that increase the capacity of attendees to solve a specific problem. Attendees leave with new skills applicable to the problem.

- Update Sessions** bring attendees together to fill them in on the latest developments with regard to an project, program, or issue. Attendees emerge from the session fully up-to-date on the topic.

Concurrent Sessions • Tuesday, March 31 • 4:00–6:00p

		4:00–4:20	4:20–4:40	4:40–5:00	5:00–5:20	5:20–5:40	5:40–6:00
Concurrent 46 Grand Ballroom AB Session Format: Invited Speakers		7559 / Shale Oil and Gas Development In and Near Parks – Technologies, Impacts, and Mitigation • Lisa Norby, chair	Development of Shale Oil and Gas Through High Volume, Hydraulic Fracturing: Scale, Scope, and Concerns • Lisa Norby	North Dakota National Parks: In the Midst of the Bakken Oil Boom • Valerie Naylor	Shale Development in the Northeast Region: Booming Production Brings Challenges • Mary Krueger	Hydraulic Fracturing: The Real Risks to Drinking Water Supplies Associated With the Subsurface Process • Pete Penoyer	Predicting Natural Ambient Sound Levels, the Spread of Noise from Energy Development, and Noise Impacts • Frank Turina
Concurrent 47 Grand Ballroom DE Session Format: Workshop		7932 / Developing a vision for social science in the National Park Service	Workshop Leaders: Susan McPartland Bret Meldrum	Participants gain an understanding of shale oil and gas development, impacts, and the tools to help mitigate the effects of these activities.		Air Resources and Viewshed Impacts and Mitigation • Andrea Stacy	
Concurrent 48 Grand Ballroom FGH Session Format: Contributed Papers		7009 / Park Planning in a Changing Social and Natural Environment • Wade Vagias, chair	Social science data and knowledge is increasingly important for park managers to make thoughtful and collaborative decisions that balance resource protection and visitor experience.	8011 / Vulnerability assessment of ecotourism to climate change in Dana Biosphere Reserve, Jordan • Malek Jamaliah & Robert B. Powell	7930 / The Tamalpais Lands Collaborative - One Mountain, One Vision • Sharon Farrell et al.	7955 / Our Coast, Our Future: A tool for sea-level rise planning in San Francisco Bay Area • Grant Ballard et al.	7926 Enhanced Florida Bay protection and experiences – how active stakeholder participation secured the new vision • Fred Herling
Concurrent 49 Grand Ballroom C Session Format: Contributed Papers		7010 / The Growing Importance of Urban Parks • Ted Tiryakian, chair	How do you prepare parks for the future when so much will be so different from the past? Planners are on the front line.	7705 / Grey to Green: Building Urban Parks • Brian Baldau	7628 / "Natural parks": How a protected area agency has created outliers in the inner city • Joseph Edminster & Amy Lethbridge	7886 / Parks and Urban Cultural Planning: converging issues and strategies • Alison Beale	7587 / "Partnerships" across the Cityscape: Multi-organizational Approaches to Enhancing Connections between People and Place • Elizabeth Perry & Robert Manning
Concurrent 50 OCC 202 Session Format: Lightning Presentations		New Horizons: Engaging the Public / Getting Around	As large majorities of the world's people migrate to cities, the park professions need to significantly ramp up the focus on urban parks.	7711 / Visitor Support for Yellowstone National Park: The Psychological and Behavioral Relationships • J. Jorgenson 7994 / Internet Presence and Social Media Perceptions and Usage by Visitors to Crater Lake National Park • R. Keane 7855 / An Experimental Investigation of the Effect of Minimum Impact Education on Visitor Behavior • A. Kidd 7863 / BioBlitz 2014: Engaging a Diverse Audience in Exploring the Diversity of GGNRA • A. Forrestal 7674 / Understanding patterns of dispersed visitor use and implications for ground-cover vegetation in Yosemite National Park • A. D'Antonio	7907 / Contributions of Urban Parks and Green Space to Human Well-being • Lincoln Larson & Viniece Jennings	7588 / The Role of Transportation in Visiting National Parks by Racial/Ethnic Minorities • Xiao Xiao et al.	7977 / Improving Gateways to Cape Lookout National Seashore: A New Passenger Ferry System • T. Littell 7927 / Rethinking Wintertime OverSnow Vehicle Transportation in Yellowstone National Park • M. Nelson 7656 / Yellowstone's Non-commercially Guided Snowmobile Access Program: Creating sustainable solutions with diverse partners • C. Mills 7684 / Human Dimensions of Winter Use in Yellowstone National Park: A Gap Analysis • N. Moser 7810 / To shuttle or not to shuttle: Mass transportation on the Going-to-the-Sun Road • Z. Miller 7983 / Developing a Science-based Framework for Management and Monitoring of Pack Stock Use in Yosemite Wilderness • T. Kuhn

Concurrent Sessions • Tuesday, March 31 • 4:00–6:00p

		4:00–4:20	4:20–4:40	4:40–5:00	5:00–5:20	5:20–5:40	5:40–6:00
Concurrent 51 OCC 203 Session Format: Day-Capper	7850 / We Have a Story to Tell • Lisa Hayes, chair	Reader's Theater Performance & Discussion: "We Have a Story to Tell"					
Concurrent 52 OCC 208 Session Format: Panel Discussion	7731 / Concessions in the National Parks – a collaborative and innovative approach to natural resource management	Moderator: Emily Daigneau Panelists: TBA					
Concurrent 53 OCC 210/211 Session Format: Panel Discussion	7538 / Field Stations in National Parks: Opportunities and Challenges	Moderator: Dan Wakelee Panelists: Tom Aruffo Becca Fenwick Michael T. Stevens					
Concurrent 54 OCC 201 Session Format: Panel Discussion	7716 / Five Qualities and Beyond: Integrating Wilderness Character in the National Park Service	Moderator: Erin Drake Panelists: Erin Drake • What is wilderness character? An exploration of law, policy, and practice Chris Holbeck • The NPS Wilderness Character User Guide and Stewardship Plan Handbook: An Overview Brenda Todd • Integrating Wilderness Character into Park Planning, Management, and Monitoring: Case study #1 Christina Miller • Integrating Wilderness Character into Park Planning, Management, and Monitoring: Case study #2 Tim Devine • What does this all mean? The future of wilderness character preservation in the NPS					



A short play about the quest to incorporate interpretation of Piscataway culture at Piscataway Park will frame a discussion of how parks interpret cultural landscapes.



More than ever NPS concession facilities and operations are managed to protect natural and cultural resources while educating visitors and promoting environmental stewardship.



Field Stations offer significant opportunities for science and society, as well as organizational challenges, for sponsoring institutions and the NPS units where they are located.



The 1964 Wilderness Act mandates wilderness character preservation. Following the Act's 50th anniversary (2014), this session will demonstrate the contemporary, interdisciplinary relevance of wilderness character.



Collaboration Sessions bring attendees together to work on a specific project. At the end of the session, the organizers will give attendees the opportunity to help complete the project.



Challenge Sessions ask members of the audience to question their assumptions. Attendees emerge from the session with their critical thinking faculties fully engaged.

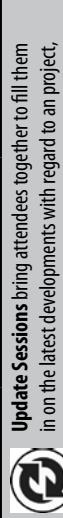


Compass Sessions bring two questions: "Where are we?" and, "Where do we want to go?" These sessions ask the audience to reflect on where we should go from here, with a range of possible directions.



Skills Sessions are hands-on training opportunities that increase the capacity of attendees to solve a specific problem. Attendees leave with new skills applicable to the problem.

Update Sessions bring attendees together to fill them in on the latest developments with regard to an project, program, or issue. Attendees emerge from the session fully up-to-date on the topic.



Tuesday, March 31 • Evening Workshops & Film Presentation • 8:00–10:00p

		8:00–8:20	8:20–8:40	8:40–9:00	9:00–9:20	9:20–9:40	9:40–10:00
Concurrent 55 OCC 201 Session Format: Workshop	7618 / Strategies for Inspiring the Next Generation of Young Conservationists and Scientists in our Parks	Workshop Leaders: Sue Gardner Nina Roberts Neal Ramus Crima Pogge Michele Gee					
		<i>Insights and strategies on how to reach, engage, inspire and elevate youth participation in parks, and the value and role of partner relationships.</i>					
Concurrent 56 OCC 202 Session Format:	8071 / Law and National Parks: Bringing Managers and Legal Scholars Together	Workshop Leaders: Bruce Huber John Nagle Bob Krumenaker					
		<i>Protecting park values often means defending them, and understanding legal framework and context is essential. Share the enthusiasm when park managers and legal scholars collaborate.</i>					
Concurrent 57 OCC 203 Session Format: Workshop	7741 / Advancing NPS Biodiversity Discovery beyond the Call to Action: A Roundtable Discussion	Workshop Leaders: Linda Drees: Overview and status of Call to Action #7, "Next Generation Stewards" Kelly Coy: Discussion of key points of NPS Biodiversity Summit, "Next Generation of Stewards: Advancing NPS Biodiversity Discovery beyond the Call to Action"					
		<i>Discover strategies and benefits of Biodiversity Discovery in the NPS; then evaluate and discuss innovative approaches for advancing biodiversity discovery beyond the "Call to Action".</i>					
Concurrent 58 OCC 210/211 Session Format: Workshops	8110 / Islands of Sanctuary Film	Film Screening and Discussion: "Standing on Sacred Ground: Islands of Sanctuary" (segments on Australia and Kaho`olawe island in Hawaii) Speaker: Christopher McLeod					
		<i>(A companion screening of other segments of the film will be offered Monday afternoon, Concurrent #27.)</i>					
		<i>Conflict between protected area managers and indigenous peoples can only be resolved through dialogue. This session continues dialogue and nurtures partnerships to protect sacred places.</i>					
		 Compass Sessions ask two questions: "Where are we?" and, "Where do we want to go?" These sessions ask the audience to reflect on where we should go from here, with a range of possible directions.					
		 Collaboration Sessions bring attendees together to work on a specific project. At the end of the session, the organizers will give attendees the opportunity to help complete the project.					
		 Challenge Sessions ask members of the audience to question their assumptions. Attendees emerge from the session with their critical thinking faculties fully engaged.					
		 Update Sessions bring attendees together to fill them in on the latest developments with regard to an project, program, or issue. Attendees emerge from the session fully up-to-date on the topic.					
		 Skills Sessions are hands-on training opportunities that increase the capacity of attendees to solve a specific problem. Attendees leave with new skills applicable to the problem.					

Concurrent Sessions • Wednesday, April 1 • 10:00a–12:00p

		10:00–10:20	10:20–10:40	10:40–11:00	11:00–11:20	11:20–11:40	11:40–12:00
Concurrent 59 Grand Ballroom AB Session Format: Invited Speakers	7780 / The Promise of Protected Areas in an Era of Change • Leigh Welling & Stephen Woodley, chairs	Key Roles that Parks and Protected Areas Play in a Changing Climate • Leigh Welling	Ecosystem Carbon Management Experiences Across Global Protected Areas to Reduce Climate Change • Patrick Gonzalez	Restoring Natural Systems to Provide Resilience to Climate Change • Bert Frost	Restoring Natural Systems to Provide Resilience to Climate Change • Karen Keenleyside	Best Practices Guidance for Managing Protected Areas Under Climate Change • Stephen Woodley	Q&A
Concurrent 60 Grand Ballroom DE Session Format: Workshop	7792 / Learning by Listening: Oral History and Narratives of Wilderness	Workshop Leaders: Lu Ann Jones Alison Steiner Brenna Lissoway	This session will highlight key elements and outcomes from the Responding to Climate Change Stream at the 6th IUCN World Parks Congress in Sydney.				
Concurrent 61 Grand Ballroom FGH Session Format: Workshop	7903 / Visitor Use Management Planning • Kerri Cahill, chair	Updates from the Interagency Visitor Use Management Council • Kerri Cahill	Visitor Use Management Planning in Action: Delaware Water Gap NRA • Rachel Collins	Data Needs for Visitor Use Management: New initiatives • Bret Meldrum	Integrating Visitor Use Management and Commercial Services Planning • Jennifer Stein	Integrating Visitor Use Management and Commercial Services Planning • Wendy Berhman	Q&A
Concurrent 62 Grand Ballroom C Session Format: Café Conversation	7711 / Ecologically Sustainable Recreation in US MPAs: Are We Ready to Ride the Wave?	Conversation Leaders: Charles Wahle Cliff McCreedy Gary Davis					
Concurrent 63 OCC 202 Session Format: Workshop	7689 / Renewing North American engagement in international protected area programs		This solution-oriented session will craft strategies for engaging growing numbers of MPA visitors in ecologically and culturally sustainable recreation in our most treasured ocean places.				
			This workshop will plan a future for North American support to the international protected area programs on World Heritage, Biosphere Reserves, Geoparks and Ramsar Sites.				

Concurrent Sessions • Wednesday, April 1 • 10:00a–12:00p

		10:00–10:20	10:20–10:40	10:40–11:00	11:00–11:20	11:20–11:40	11:40–12:00
Concurrent 64 OCC 203 Session Format: Contributed Papers	7011 / Monitoring, Managing, and Restoring Vegetation / Carol Miller, chair	7992 / Vegetation and soils monitoring in parks of the American Southwest: Synthesis and Lessons Learned • Andy Hubbard et al.	7531 / Utilizing Research and Monitoring to Inform Appropriate Management of Rare Maritime Forests on Fire Island • Jordan Raphael	7917 / Conservation Easements and their Contribution to Natural Vegetation Protection • Kai Foster et al.	7957 / Restoration of the Mariposa Grove of Giant Sequoias • Sue Beatty	8656 / Wildland fires limit the occurrence, severity, and size of subsequent fire • Carol Miller	7650 / Northern Great Plains plant community responses to nitrogen deposition • Amy Symstad & Anne Smith
Concurrent 65 OCC 208 Session Format: Contributed Papers	7012 / Engagement Leads to Better Management • Alan Hardy, chair	7630 / The Natural Neighbors project: Cross-promotion between protected areas and museums and similar institutions • Ted Trzyna	7795 / The Nexus between Tourism, Conservation and Local Community Livelihood in Northern Tanzania • John Mponja	7914 / Impacts of CBF on Poaching Reduction and Livelihood Change around Nyungwe National Park, Rwanda • Edwin Sabuhoro et al.	7567 / Stories Are Resources, Too: Embracing Broader Narratives to Build Parks' Future Personal and Public Relevance • Fred MacLaugh	7644 / The Impact of Dialogic (Two-Way) Interpretation: A Multi National Park Study • Douglas Knapp & Brian Forrest	7533 / Nature-based Recreation and Latino Engagement in Boulder County: Moving Towards Increased Social Equity • Alan Hardy
Concurrent 66 OCC 210/211 Session Format: Panel Discussion	7754 / Call to Action #38: Enjoy the View – protecting clean air and treasured views	Moderator: Melanie Peters Panelists: Laura Rotegard Mark Meyer Melanie Peters Leonel Arguello Jim Von Haden	"Engagement" is practically becoming a mantra for managers, but what's important is that the effort leads to measurably better outcomes. This session gives a range of examples.	Air and visual resources face diverse threats. Learn from parks addressing these cross-boundary issues by participating in Call to Action item #38: Enjoy the View.	8107 / The Future of Science in the National Parks • Gary E. Machlis	7602 / Management Assessment Points: A Bridge Between Science and Management in Southwest Parks • Andy Hubbard et al.	7561 / Science in a landscape shaped by qualitative guidance and emotion: Bear baiting on Alaskan parks • Grant Hilderbrand
Concurrent 67 OCC 201 Session Format: Contributed Papers	7013 / Natural Resources Policy on the Frontlines • Jeffrey C. Skibins, chair	8109 / Advocating for Natural Resources in the Heat of Incident Management • Richard Schwab	7981 / Management Assessment Points: A Bridge Between Science and Management in Southwest Parks • Andy Hubbard et al.	Policy is the guiding force behind every on-the-ground natural resources management decision. Audience members will leave this session with a better understanding of the connections.	Compass Sessions ask two questions: "Where are we?" and, "Where do we want to go?" These sessions ask the audience to reflect on where we should go from here, with a range of possible directions.	7602 / Are grizzly bears more than just scenery? Strategies to improve visitor-based conservation actions • Jeffrey C. Skibins et al.	7561 / The Role of Landscape Conservation Cooperatives in Implementing the Vision of Revisiting Leopold • Amanda Babson et al.

Concurrent Sessions • Wednesday, April 1 • 1:30–3:30p

		1:30–1:50	1:50–2:10	2:10–2:30	2:30–2:50	2:50–3:10	3:10–3:30
Concurrent 68 Grand Ballroom AB Session Format: Invited Speakers	7787 / Assessing Biodiversity Outcomes in Protected Areas – what do we really know? • Stephen Woodley, chair	Introduction to what we know about biodiversity outcomes in protected areas • Stephen Woodley	Results of the IUCN Global Assessment on Biodiversity Outcomes in Protected Areas • Ian Craigie et al.	Conservation Gain: Monitoring the state of Parks Canada's National Parks • Stephen McCann and Dan Kehler	Are US National Parks Effective? When and Why? • Joe DeVivo	Q&A	
		<i>This session brings together the latest research in assessing predictors of success for protected areas in conserving biodiversity outcomes.</i>					
Concurrent 69 Grand Ballroom DE Session Format: Contributed Papers	7014 / Natural Sounds and Noise Management • Megan McKenna, chair	7870 / Assessing the condition of acoustical resources across the National Park Service Units • Daniel Memmert et al.	7941 / A synthesis of two decades of research documenting the effects of noise on wildlife • Megan McKenna & Graeme Shannon	7913 / Measurement and Characterization of Motorcycle Noise in Park Environments • Aaron Hastings	7825 / Ride Respectfully: using motorcycle outreach to protect natural sounds in national parks • Emma Brown et al.	7872 / Estimating the acoustic composition of underwater environments within Stellwagen Bank National Marine Sanctuary • Daniel Memmert et al.	9071 / Examining soundscapes and potential management actions in Bandalier National Monument • Jennifer N. Netwon
		<i>Maintaining natural soundscapes in parks and other protected areas has emerged as a major resource management focus. Catch up with what's going on.</i>					
Concurrent 70 Grand Ballroom FGH Session Format: Lightning Presentations + Panel Discussion	7923 / Nature's transformational power: health metrics and measures linked to Healthy Parks Healthy People		Moderators: B. Derrick Taff & Diana Allen Presenters & Panelists: Jennifer Thomsen • National Park Service Healthy Parks Healthy People Science Plan Overview Peter Newman • Social Science Examinations of Park Soundscapes: Overview and Lessons Learned Lauren Abbott • The Effects of Natural Sound on Human Cognition and Restoration Jason Benfield • Perceptual Studies on the Need for Natural Sound Courtney L. Schultz • Parks and Trails Metrics: Supporting Health Promotion				
		<i>This session provides examples and discussion of programs and research demonstrating the transformational power of parks to provide physical and psychological health and wellbeing opportunities.</i>					
Concurrent 71 Grand Ballroom C Session Format: Sharing Circle	7735 / Responding to Change: Developing a Network of Preservation Specialists to Address Resource and Staffing Needs		Sharing Circle Convenors: Randall Skeirik Katherine Monson				
		<i>Heritage preservation practitioners and those in related fields will share information on the care of park resources, changing needs, and possibilities for collaboration.</i>					
Concurrent 72 OCC 202 Session Format: Panel Discussion	7734 / Return of the Buffalo: A discussion of the impacts of federal buffalo on receiving Tribes		Moderator: Jim Stone Panelists: Evrin Carlson Delbert Chisholm Chester Whiteman Mike Faith				
		<i>The session will provide an update on current Tribal usage of buffalo acquired from federal facilities and show the positive impacts on Tribal life.</i>					

Concurrent Sessions • Wednesday, April 1 • 1:30–3:30p

		1:30–1:50	1:50–2:10	2:10–2:30	2:30–2:50	2:50–3:10	3:10–3:30
Concurrent 73 OCC 203	Session Format: 	7856 / Innovation: What it really means and why we should care—A hands-on workshop for leaders to help drive innovation	Workshop Leader: Cleveland Justis				
		<i>Attendees will learn through engaging stories of leading innovators, hands-on activities, and open dialogue how to recognize, build, and apply effective and exciting innovation principles and tools.</i>					
Concurrent 74 OCC 208	Session Format: Contributed Papers	7015 / Education, Outreach, and Citizen Science • Robert Whiffen, chair	7671 / From Research to Engagement: Case Studies of Scientific Research Resulting in Conservation Engagement Southern California • Christy Brigham et al.	7682 / Engaging people through climate change science and adaptation in Alaska • Robert Whiffen et al.	7976 / Implementing Park Science • Jeri Hall	7504 / Developing a citizen science program that supports your parks resource management and monitoring needs • Shannon Trimble & Rickard S. Toomey III	7727 / We Listened, We Learned, We Acted: Lessons learned from engaging diversity at George Washington National Monument • Lena Le et al.
		<i>The public is a huge potential source of knowledge waiting to be tapped. Hear case studies covering science, visitor diversity enhancement, and outreach to the next generation of leaders.</i>					
Concurrent 75 OCC 210/211	Session Format: Panel Discussion		7799 / The IUCN WCPA Protected Area Capacity Development Initiative	Moderator: David Reynolds	Panelists: Ernesto Ekerlin-Hoefflich • Capacity Development and the World Parks Congress David Reynolds: Strategic Pathways for Capacity Development in Protected Areas and other Conserved Territories (SPCD) Ana Poreczanski • Evaluating conservation capacity development Jim Barborak: Review of the results of the WPC Pre-Congress capacity development sessions		
		<i>Learn about how you can be involved in the programs featured at the World Parks Congress that can improve global protected area management capacity.</i>					
Concurrent 76 OCC 201	Session Format: Contributed Papers		7016 / A Flood of Numbers: Monitoring and Data Management • Peter Dratch, chair	7832 / Moving beyond simple trend detection: putting the why back into monitoring • Kathryn Irvine et al.	7759 / Data Management: What is it and what can it do for me? • Sarah Wakamiya	7808 / Monitoring What Matters on Our National Wildlife Refuges • Peter Dratch et al.	7579 / Photo monitoring from gigapixel to drone: new techniques showcase change in the Presidio, GGNRA • Lewis Stringer
		<i>Data, data everywhere, but how do we get a drink out of that fire hose? This session offers a range of relevant answers.</i>					
		 Compass Sessions ask two questions: "Where are we?" and, "Where do we want to go?" These sessions ask the audience to reflect on where we should go from here, with a range of possible directions.					
		 Challenge Sessions bring attendees together to work on a specific project. At the end of the session, the organizers will give attendees the opportunity to help complete the project.					
		 Skills Sessions are hands-on training opportunities that increase the capacity of attendees to solve a specific problem. Attendees leave with new skills applicable to the problem.					
		 Update Sessions bring attendees together to fill them in on the latest developments with regard to an project, program, or issue. Attendees emerge from the session fully up-to-date on the topic.					

Concurrent Sessions • Wednesday, April 1 • 4:00–6:00p

		4:00–4:20	4:20–4:40	4:40–5:00	5:00–5:20	5:20–5:40	5:40–6:00
Concurrent 77 Grand Ballroom AB Session Format: Invited Speakers	7573 + 8043 / Partnership case studies at parks and protected areas from an international perspective • Robert C. Burns, chair	New solutions for an urban national park under use pressure. A stakeholder-driven planning approach (Austria) • Arne Amberger	Engaging corporate businesses in protected area management and conservation projects (Germany) • Eick von Ruschkowski	Fernando de Noronha National Marine Park: A Variety of Partnerships (Brazil) • Jasmine Cardozo Moreira	8043 / Developing partnerships to support natural and cultural heritage conservation in international seascapes • Thomas Fish & Anne H. Walton	Developing a Cooperative Partnership on the Tapajos National Forest (Brazil) • Robert C. Burns	Q&A
		<i>Discussion will be available as we discuss various types of partnerships used in several international settings, including cooperatives, NGOs, governmental, and sponsorships.</i>					
Concurrent 78 Grand Ballroom DE Session Format: Invited Speakers	7889 / Long-range Transportation Planning in the National Park Service • John Gerbich, chair	Overview of NPS LRTP Program • Christine Bruins	Incorporating the NPS Mission: Visitor Experience • Rachel Collins	Incorporating the NPS Mission: Cultural Resources • John Gerbich	Incorporating the NPS Mission: Natural Resources and Climate Change • Christine Bruins	Incorporating the NPS Mission: Natural Resources and Climate Change • Christine Bruins	Q&A
		<i>This session will challenge the audience to think about how to incorporate mission-specific topics like visitor experience and resource protection into traditional/long-range transportation planning.</i>					
Concurrent 79 Grand Ballroom FGH Session Format: Contributed Papers	7017 / Restoration: The “Long Game” of Protected Area Conservation • John Burghardt, chair	7776 / Seed collection as the basis of restoration strategy • Steve Buckley & Jason Meteljak	8001 / Targeting Priorities for Ecological Restoration in the Merced Wild and Scenic River Corridor • Laura Jones et al.	8063 / Abandoned Mineral Lands in the National Park System—Comprehensive Inventory and Assessment • John Burghardt	7584 / Repairing legacy grazing impacts in Sierra Nevada wetlands • Evan Wolf et al.	8567 / Conservation Gain: Restoring Ecological Integrity and Hope in Parks Canada’s National Parks • Kent Prior	OPEN
		<i>Restoration of protected areas will be necessary for a long, long time to come. Vegetation, rivers, old mines, rangelands, wetlands, wilderness—this session has examples from across the board.</i>					
Concurrent 80 Grand Ballroom C Session Format: Two 1-hour segments	“The Bigger Picture” Lectures: ICOMOS & World Heritage	9072 / US/ICOMOS: Bringing you a World of Heritage Solutions • Andrew Potts	9072 / US/ICOMOS: Enhancing access by CRM peers around the world to the best new US heritage practices, research and science, and vice versa.	Andrew Potts	7756 / The World Heritage Program: A Laboratory for Linking Nature and Culture • Tim Badman	Learn about the international role of the World Heritage Convention and discuss opportunities and challenges facing this treaty and the conservation of World Heritage Sites.	
		<i>Icomos logo</i>					
Concurrent 81 OCC 202 Session Format: Contributed Papers	7018 / Assessing Impacts through Better Understanding of Visitors’ Knowledge and Attitudes • Yu-Fai Leung, chair	7728 / An integrated approach to assessing pack stock behavior and resource use in Yosemite’s high-elevation meadows • Todd Newburger et al.	7801 / Conventional and alternative approaches to low-impact education: closing the distance between managers and visitors • Robert Manning et al.	7539 / Engaging People and Place in Research/Environmental Literacy in a Land of Private Property • Tom Aruffo & Robert Stubblefield	7738 / Tourism and Visitor Management in Protected Areas: Guidelines for Sustainability • Yu-Fai Leung et al.	7416 / The Impacts of Mountain Biking on Wildlife and People – A Review of the Literature • Mike Vandeman	8088 / Bear Viewing and Visitor Compliance with Park Rules in Yellowstone National Park • Patricia A. Taylor et al.
		<i>Icomos logo</i>					
		<i>Managing a park without knowing what your visitors know is like driving blind. This session will inform the audience about a wide range of visitor impacts that affect parks.</i>					

Concurrent Sessions • Wednesday, April 1 • 4:00–6:00p; 6:30–8:00p

		4:00–4:20	4:20–4:40	4:40–5:00	5:00–5:20	5:20–5:40	5:40–6:00
Concurrent 82 OCC 203	7733 / The Millennials are Alright: Engaging Youth in Science and Conservation of National Parks • Jim Watkins & Lisa Nobby, chairs Session Format: Day-Capper	Game Show Format					
		Participants will learn from recent NPS interns and fellows and gain insight into how best to engage young people in resource stewardship.					
Concurrent 83 OCC 208	7019 / Human Impacts on Aquatic Fauna • Danette Woo, chair Session Format: Contributed Papers	7973 / Light pollution and sea turtle protection at Gulf Islands National Seashore, a citizen science approach • Susan Feel et al.	7626 / Will a hot California elephant seal females and pups? • Sarah Codde et al.	7677 / Long-Term Monitoring of Summer Steelhead in Redwood Creek at Redwood National Park • David Anderson	7842 / Lionfish Invasion: Hold on to Your Habitat • Cliff McCready et al.	7919 / How many salmon are too many salmon? • Scott Gende	7833 / Mohave tui chub: Where We are 12 Years Later • Danette Woo
		This set of contributed papers explores a range of human impacts on marine and freshwater species, and offers management solutions.					
Concurrent 84 OCC 210/211	7020 / Historic Structures and Landscapes: Old Problems, New Solutions • Cherilynn Widell, chair Session Format: Contributed Papers	8031 / CCC Historic Designed Landscape: Opportunities to Expand Interpretation of Park History and Cultural Resources • Robin Pinto	7624 / Intelligent Buildings: Lowering Carbon Emissions and Energy Costs through Building Reuse • Cherilynn Widell & David Shiver	7793 / Competing Demands: Managing Cultural, Natural, Recreation and Historic Resources in Fort Ward Park • Elizabeth Lardner	7918 / Vibration of Natural, Historical, and Ancient Structures • Aaron Hastings & Randy Stanley	7726 / Superstorms, Shutdowns, and the Future of Cultural Resources: A Gateway Case Study • Jennifer Nersesian & Marliou Ehrlir	8815 / Old Courthouse Accessibility Improvements — St. Louis, Missouri • Amy Huff
		Historic structures and landscapes are among the most challenging park resources to take care of. Attendees will discover how cultural resource managers are handling a wide spectrum of problems.					
Concurrent 85 OCC 201	7771 / Starting a George Wright Society Student Chapter • Gina Depper, chair Session Format: Day-Capper	7771 / Starting a George Wright Society Student Chapter	TBA				
		This session will inform attendees about the first George Wright Society student chapter. It will also encourage the development of additional student chapters.					
Concurrent 86 Grand Ballroom DE	9022 / National Park Service Pacific West Region (PWR) Cultural and Natural Resource Gathering Session Format: Business Meeting	PWR Natural and cultural resource meet and greet.	NOTE: THIS BUSINESS MEETING RUNS FROM 6:30–8:00p	Organizers: Denise Louie Christy Brigham Abby Sue Miller Brent Johnson			

Wednesday, April 1 • Evening Workshops • 8:00–10:00p

		8:00–8:20	8:20–8:40	8:40–9:00	9:00–9:20	9:20–9:40	9:40–10:00
Concurrent 87 OCC 201 Session Format: Discussion	9060 / Partners in Amphibian and Reptile Conservation: Round Table Discussion	Discussion Leader: Jen Williams Presenter: Mary Kay Watry					
		<p><i>The PaRC round table discussion will allow attendees to find out more about amphibian and reptile conservation and what PaRC can do for them.</i></p>					
Concurrent 88 OCC 202 Session Format: Workshop	7652 / Managing Wildlife and Human Behavior to Address Human-Wildlife Interactions	Workshop Leaders: Kirsten Leong, Rick Kahn, and Sara Melena Presenters: Kirsten Leong: Managing Human-Wildlife Interactions: Principles of Animal Behavior Change and Learning Sara Melena: Managing Human-Wildlife Interactions: Principles of Human Behavior Change and Learning Keith Bensen: Killer Potato Chips: Adaptive Management and Visitor Behavior Change to Conserve an Endangered Seabird					
		<p><i>This workshop will engage managers and practitioners in assessing and developing varying approaches to managing changes in animal and human behavior that affect human-wildlife interactions.</i></p>					
Concurrent 89 OCC 203 Session Format:	OPEN						
		<p><i>This session will demonstrate the online cultural resources toolkit, facilitate discussion of ideas and content for its expansion, and solicit feedback from attendees via survey.</i></p>					
Concurrent 90 Grand Ballroom C Session Format: Workshop / Café Conversation	7867 / A Cultural Resources Toolkit for Marine Protected Area Managers	Workshop Leader: Valerie Grussing					
		<p><i>This session will demonstrate the online cultural resources toolkit, facilitate discussion of ideas and content for its expansion, and solicit feedback from attendees via survey.</i></p>					
		<p>Collaboration Sessions bring attendees together to work on a specific project. At the end of the session, the organizers will give attendees the opportunity to help complete the project.</p>					
		 <p>Challenge Sessions ask members of the audience to question their assumptions. Attendees emerge from the session with their critical thinking faculties fully engaged.</p>					
		 <p>Compass Sessions ask two questions: "Where are we?" and, "Where do we want to go?" These sessions ask the audience to reflect on where we should go from here, with a range of possible directions.</p>					
		 <p>Update Sessions bring attendees together to fill them in on the latest developments with regard to an project, program, or issue. Attendees emerge from the session fully up-to-date on the topic.</p>					
		 <p>Skills Sessions are hands-on training opportunities that increase the capacity of attendees to solve a specific problem. Attendees leave with new skills applicable to the problem.</p>					

Concurrent Sessions • Thursday, April 2 • 10:00a-12:00p

		10:00–10:20	10:20–10:40	10:40–11:00	11:00–11:20	11:20–11:40	11:40–12:00
Concurrent 91 Grand Ballroom AB	7873 / The Collaborative Process for Creating a New Energy Frontier	Moderator: Sarah Quinn Panelists: Ray Sauvajot Doug Boren Michael Sintetos David Lamform					
Session Format: Panel Discussion							
Concurrent 92 Grand Ballroom DE	7876 / Science with Citizens: An Update on the Dragonfly Mercury Study	Moderators: Colleen Flanagan Pritz, Sarah J. Nelson, Andrea Blakesley Panelists: Colleen Flanagan Pritz • The Big Picture on Mercury Sarah J. Nelson • Putting the “bio” in “biogeochemist” tracing mercury from air to water to biota Ann Rodman • Interpreting dragonfly larvae as “biosentinels” Regina Rochefort • Understanding resources and values using dragonfly larvae Michael Marion • Engaging citizen scientists at Aradia National Park to collect dragonfly larvae					
Session Format: PANEL DISCUSSION							
Concurrent 93 Grand Ballroom FGH	7849 / Hurricane Sandy response and recovery as a climate adaptation opportunity and challenge	• Amanda Babson, chair Understanding Ecological Response to Major Storm Events – Hurricane Sandy • Mary Foley	Utilizing applied science for planning and design in rebuilding Sandy damaged infrastructure • Tim Hudson	When the Waters Rise: Understanding the FEE of Historic Structures in a Post Sandy Park • Tim Hudson	Assateague Island National Seashore adaptive strategies to climate change and sea level rise for facilities • Randy Hartz	Q&A	
Session Format: Invited Speakers							
Concurrent 94 Grand Ballroom C	7736 / Re-Envisioning the Application of the National Environmental Policy Act (NEPA) within Land Management Agencies	Convenors: Christopher Buczko Ken Cline Tom Flanagan Dave Jacob					
Session Format: Sharing Circle							
Concurrent 95 OCC 202	7762 / Connecting City Dwellers with Nature Where They Live	Workshop Leaders: Damien Raffa Peter Brastow Elishama Goldfarb Anthony Khalil					
Session Format: Workshop							

We have both attended national and international conferences to better inform our urban strategies. To achieve significant interdisciplinary shifts the conversation needs to be elevated.

Concurrent Sessions • Thursday, April 2 • 10:00a-12:00p

Concurrent Sessions • Thursday, April 2 • 1:00–3:00p (note earlier start time for this block of sessions)

		1:00–1:20	1:20–1:40	1:40–2:00	2:00–2:20	2:20–2:40	2:40–3:00
Concurrent 100 Grand Ballroom AB	"The Bigger Picture" Lectures: World Heritage and Nature Needs Half	9902 / Improving World Heritage management by 'operationalising' Outstanding Universal Value • Jon Day					Harvey Locke
Session Format: Speakers		A proven methodology for World Heritage managers to more effectively understand and use their 'Outstanding Universal Value' (OUV) for planning and management will be demonstrated.					
Concurrent 101 Grand Ballroom DE	9011 / Addressing the capacity development needs of indigenous, traditional, and local community protected area stewards	Workshop Leader: Anna Luz Porzecanski					
Session Format: Workshop		<i>Contribute to a developing WCPA program for capacity development by/with/for local and indigenous communities and provide feedback on major issues, goals, objectives for future action.</i>					
Concurrent 102 Grand Ballroom FGH	7854 / Ecological response and recovery of Northeast coastal national parks to Hurricane Sandy • Mary Foley & Charles Roman	Overview of multiple studies assessing the response and resilience of coastal parks to Hurricane Sandy • Charles Roman	Metrics of Dune-Beach System Evolution, Gateway National Recreation Area, NPS • Norbert Psuty	Understanding Morphologic Response and Recovery to Quantify Geomorphic Resiliency of Barrier Island Beaches: Fire Island • Cheryl Hakke	Response of Great South Bay ecology to a Hurricane Sandy created breach through Fire Island • Christopher Gobler	Visionmaker Jamaica Bay: Sharing visions of ecological resilience after Hurricane Sandy • Eric Sanderson	Q&A
Session Format: Invited Speakers		<i>Hurricane Sandy substantially altered several national parks, but they were found to be ecologically resilient, recovering quickly in the months and years following the storm.</i>					
Concurrent 103 Grand Ballroom C	7643 / New Directions for Cultural Landscapes	Convenors: Nora Mitchell Brenda Barrett					
Session Format: Sharing Circle		<i>Practitioners are taking a new look at the meaning and conservation of cultural landscapes. Share diverse perspectives on this concept and help shape its future.</i>					
Concurrent 104 OCC 202	7025 / Economics and Valuation of Parks and Protected Areas • Lynne Koontz, chair	7875 / Measuring social and economic effects of NPS lands: an overview of tools with example applications • Catherine Cullinane Thomas	7901 / NPS Social Science Program: economic support for NPS parks, regions, and national programs • Lynne Koontz et al.	7633 / Coal town to trail town: A grassroots approach to nature based tourism for rural communities • Ryan Sharp & Michael Bradley	7961 / Mapping ecosystem services for National Park Service management • Ken Bagstad et al.	8016 / Projected Impacts of Climate Change Mitigation on Recreation Opportunities Across US State Park Systems • Jordan Smith & Yu-Fai Leung	OPEN
Session Format: Contributed Papers		<i>Despite the centrality of budgets to everything we do, economic analysis doesn't always get the attention it deserves. This session will address that shortcoming by offering a series of engaging case studies.</i>					

Concurrent Sessions • Thursday, April 2 • 1:00–3:00p (note earlier start time for this block of sessions)

		1:30–1:50	1:50–2:10	2:10–2:30	2:30–2:50	2:50–3:10	3:10–3:30
Concurrent 105 OCC 203	7853 / Catalyzing Innovation in the Parks Session Format: Panel Discussion	Moderator: Jeff Byles Panelists: Jeff Byles • So What Is Public Realm Innovation, Anyway? Shaun Eyring • Title TBA Catherine Barmer • Parks for All Forever: Engaging the Community in Park Planning and Design Kevin Conger • Adapting With Success: New Ideas for Crissy Field and The Presidio		<i>This session delivers specific tools, strategies, and lessons learned in the quest to catalyze visionary innovation initiatives for park planning, management, and design.</i>			
Concurrent 106 OCC 208	7026 / Wildlife Management II • Kate Roney Faulkner, chair Session Format: Contributed Papers	7659 / Critical Connections: Conserving Migratory Species in Alaska Parklands • Laura Phillips et al. 7933 / The implications of conservation policies on mammal diversity within a Costa Rican Biological Corridor • Margot Wood & Thomas E. Lacher, Jr.		<i>Wildlife is still the centerpiece of the visitor experience in protected natural areas, and is perhaps the most visible kind of resource management. The second of two sessions' worth of case studies.</i>	7611 / The biological consequences of climate change on high-elevation amphibian populations • Amanda Kissel et al.	7743 / Lessons Learned during the Elimination of Non-native Animals from Channel Islands National Park • Kate Roney Faulkner & Russell E. Galipeau, Jr.	8033 / Bat Studies in Alaska's National Parks • Paul Burger
Concurrent 107 OCC 210/211	7893 / Phenology for the Next Century of Science and Engagement in Protected Areas Session Format: Panel Discussion	Moderators: Kathy Gerst & Jake Weltzin Panelists: Alyssa Rosemarin • Spring Forward: Taking phenology to the next level at natural protected areas Angela Evenden • Building a state-wide phenology network: Lessons learned from the California Phenology Project Jana Newman • Citizen Science and phenology monitoring: The underutilized tools in our toolbox Tim Watkins • The Appalachian Trail: a case study in unifying phenology monitoring across eleven degrees of latitude		<i>We will build on our shared interests and experiences to envision the role of phenology in science, engagement, and conservation in the next century.</i>			7837 / Challenges, opportunities, and priorities for bat conservation in a 2nd-century National Park Service • Thomas Rodhouse et al.
Concurrent 108 OCC 201	7027 / Protected Areas as Part of the Larger Social Context • Jennifer Thomsen, chair Session Format: Contributed Papers	8095 / Wilderness and the World Heritage Convention • Cyril Kormos 7494 / Lessons Learned When "Sacred" bumps into "Profane" in Mountain Protected Areas • Lawrence Hamilton		<i>Presentations in this session remind us that parks, protected areas, and cultural sites are social constructs that depend on the continuing support of society as a whole.</i>	7562 / The Revival and Future of the U.S. Biosphere Reserve Program • Jennifer Thomsen	7667 / The U.S. National Park Service: Organizational Adaptation in an Era of Complexity, Uncertainty, and Change • Christina Mills & Wayne Freimund	7848 / Protected Areas the future? • Brian MacSharry
							Update Sessions bring attendees together to fill them in on the latest developments with regard to an project, program, or issue. Attendees emerge from the session fully up-to-date on the topic
							Skills Sessions are hands-on training opportunities that increase the capacity of attendees to solve a specific problem. Attendees leave with new skills applicable to the problem.
							Compass Sessions ask two questions: "Where are we?" and, "Where do we want to go?" These sessions ask the audience to reflect on where we should go from here, with a range of possible directions.
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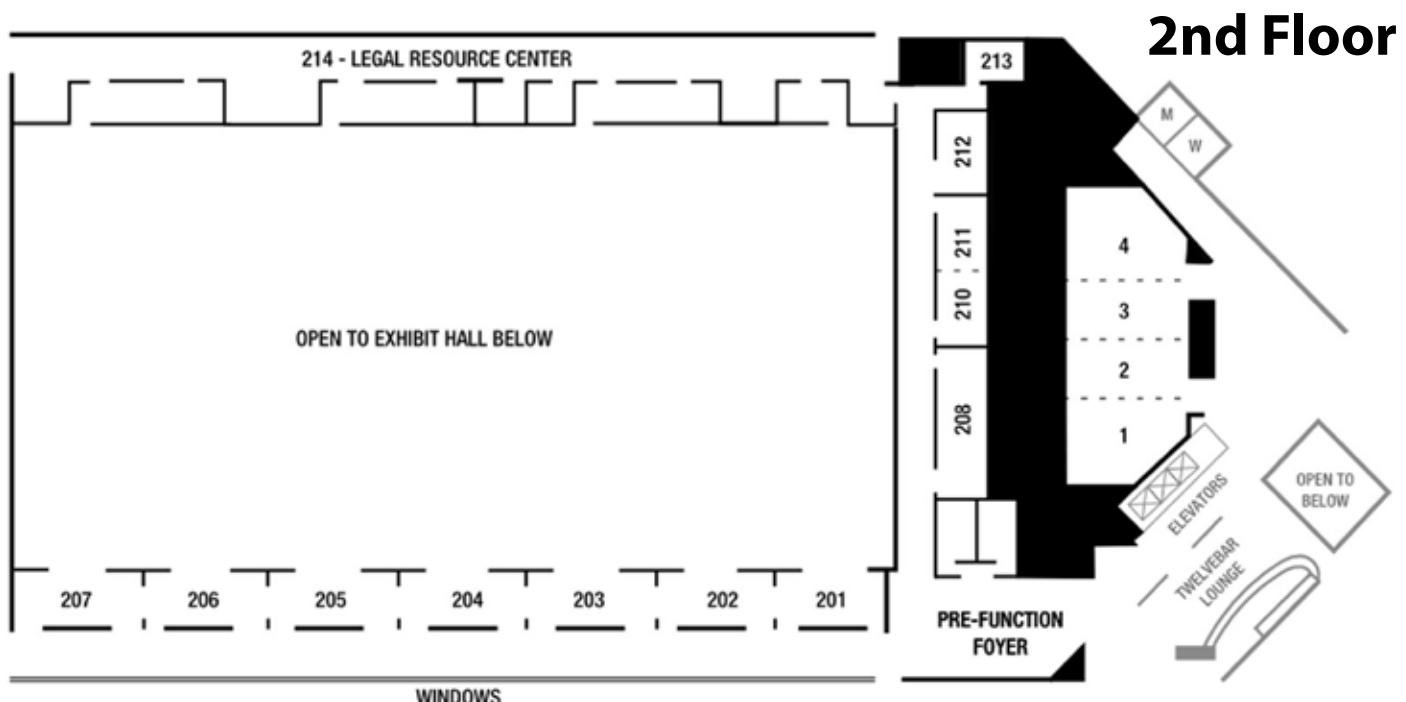
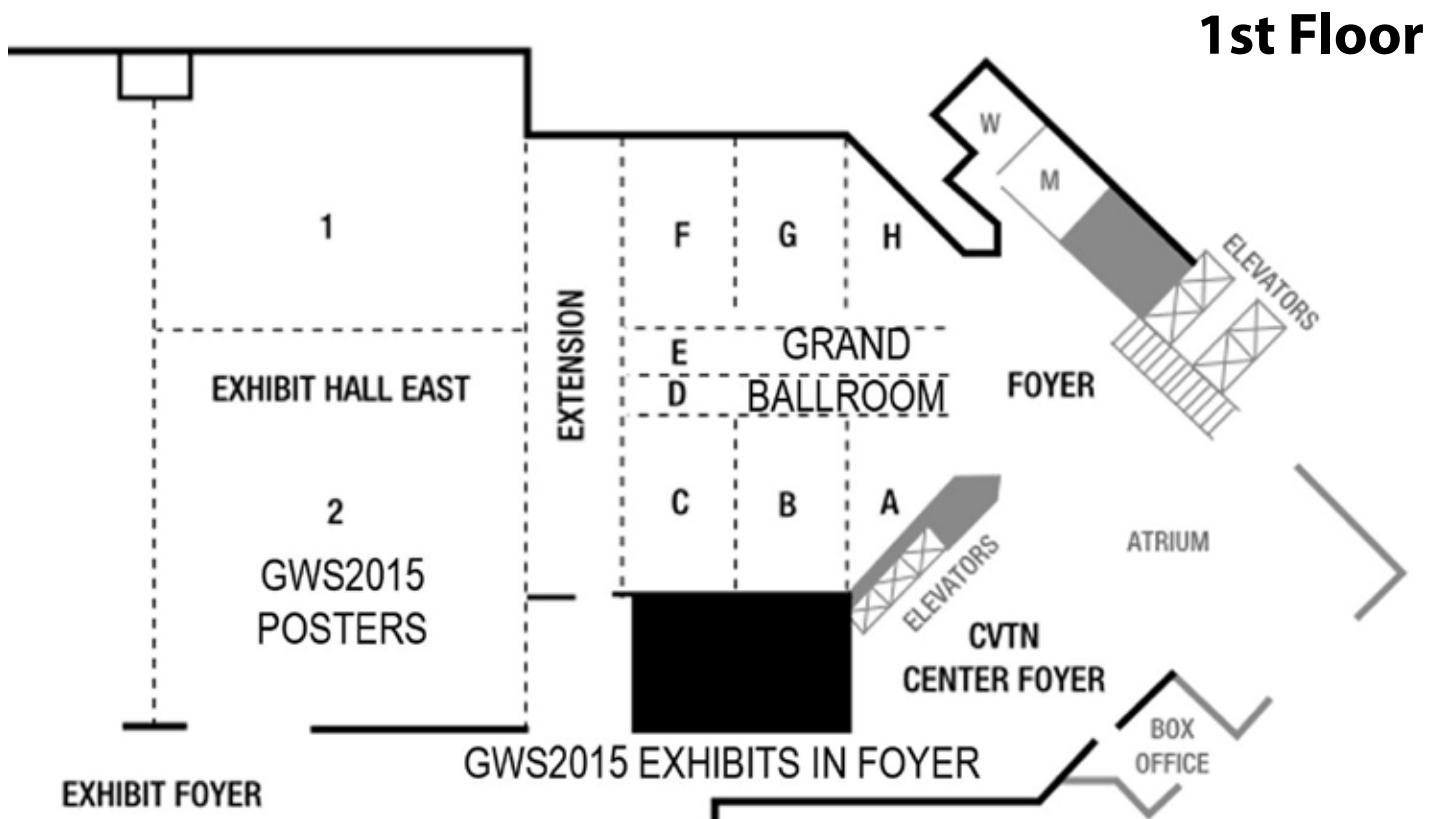
Concurrent Sessions • Thursday, April 2 • 3:30–5:30p (note earlier start time for this block of sessions)

		3:30–3:50	3:50–4:10	4:10–4:30	4:30–4:50	4:50–5:10	5:10–5:30
Concurrent 109 Grand Ballroom AB Session Format: Invited Speakers	7902 / Commercial Air Tour Planning and Current Activities under the National Parks Air Tour Management Act • Brent Lignell, chair	Overview of amendments to the National Parks Air Tour Management Act of 2000 • Vicki Ward	Results of 2013 Commercial Air Tour Reporting/Trends in Air Tour Activity over National Parks • Brent Lignell	NPS Pacific West Region Wilderness Air Tour Noise Assessment Strategy • Judy Rocchio	Developing a Commercial Air Tour Voluntary Agreement - Lessons Learned by NPS and FAA • Keith Lusk	Q&A	
		<i>Update on implementation of the National Parks Air Tour Management Act of 2000: results of air tour reporting, assessment of aircraft noise, voluntary agreement development</i>					
Concurrent 110 Grand Ballroom DE Session Format: Panel Discussion	7744 / Redrawing the Boundaries: Science Communication in the NPS	Moderator: Sara Meleno Panelists: John Falk • The state of science literacy in society Ray Sauvajot • The NPS Case for Convergence of Resource Management and Interpretation Julia Washburn • The NPS Case for Convergence of Resource Management and Interpretation Tim Watkins • Science Literacy and the National Park Service Mike Whaley • Reconsidering the lines between resource management and interpretation					
		<i>The audience will consider the role of the NPS in science communication and scientific literacy, and to reconsider the lines between resource management and interpretation.</i>					
Concurrent 111 Grand Ballroom FGH Session Format: Invited Speakers	7995 / Enjoy the View by Daylight and Starlight • Melanie Peters & Andrea Blakesley, chairs	Identifying important scenic views – where they are and why they are important • Mark Meyer	Protecting natural landscapes in park developed zones with fully sustainable outdoor lighting management • Laura Williams	Clearing the Haze: Forty years of research and policy to improve daytime and nighttime visibility • Bret Schichtel	Landscape-scale viewing conservation • Laura Rotegard	A Cosmic Odyssey: Creating a New Approach to Sky Designations • Ethan McIntyre	Q&A
		<i>This session explores protection of iconic scenic vistas and premier night sky viewing opportunities through cross-boundary collaboration and policies that reduce haze and light pollution.</i>					
Concurrent 112 Grand Ballroom C Session Format: Sharing Circle	7798 / Resources Science and Stewardship in a Time of Uncertainty – How are we doing?	Convenor: Linda Mazzu					
		<i>Sharing stories about resource and science stewardship that push the envelope would intrigue and give us all courage to face these uncertainties of change ahead.</i>					
Concurrent 113 OCC 202 Session Format: Workshop	7777 / The Role of Universities in Protected Areas Management	Workshop Leader: James Barborak					
		<i>How can we bolster universities' roles in managing and co-managing PAs networks, educating managers, conducting research and monitoring, and engaging the public and decision makers?</i>					

Concurrent Sessions • Thursday, April 2 • 3:30–5:30p (note earlier start time for this block of sessions)

		3:30–3:50	3:50–4:10	4:10–4:30	4:30–4:50	4:50–5:10	5:10–5:30
Concurrent 114 OCC 203 Session Format: Invited Speakers	7772 / The Role of Community Outreach and Interpretive Actions in Protecting Historic Park Resources	Moderator: Hilary Miller Panelists: Mario Battaglia Casey Campeti Maija Glasier-Lawson Stephanie Sullivan					
		Session explores the ways community outreach and interpretive actions can promote protection and appreciation of historical resources in parks and protected areas.					
Concurrent 115 OCC 208 Session Format: Contributed Papers	7021 / Climate Change • Jen Williams, chair	7906 / Applied Climate Change Science Supporting National Park Management in the US Northern Rockies and Appalachians • William Monahan et al.	7533 / The Anthropocene versus Climate Change as a Conceptual Framework for Addressing Global-Scale Stressors • Roger Kaye	7767 / Climate Driven Coastal Transformations in the Arctic Parks • Ianzy Jones & Peter Neffitch	7631 / Modeling snow water equivalent in Yosemite National Park • James Roche et. al	7980 / Adema (pending)	OPEN
		There's no bigger problem, and it needs to be addressed from every angle in the "hard" and social sciences. This session provides a sampling of current thinking.					
Concurrent 116 OCC 210/211 Session Format: Panel Discussion	7542 / Putting Benefits Sharing to Work for Parks	Moderator: Ann Hitchcock Panelists: Carla Mattix • Legal Authority, Fundamental Legal Concepts, and Early Development of NPS Benefits Sharing John Dennis • Key Features of NPS Benefits-Sharing Policy and its Significance for Permitted Researchers and Park Staff Linda Drees • The Nature of Benefits and Agreements to Share Benefits Ann Hitchcock • From the Benefits-Sharing Handbook: Tools for Initiating and Managing Benefits Sharing					
		Researchers and park staff learn how commercial application of research results from authorized research on park resources leads to benefits sharing and improved resource preservation.					
Concurrent 117 OCC 201 Session Format: Invited Speakers	7727 / From Theory to Practice: Social Policy and the Park Service, 1950–1980	Creating a Native Hawaiian National Park: The Movement to Establish Kaloko-Honokōhau National Historical Park • Chris Johnson • Eleanor Mahoney & David Louter, chairs	The Recreation Imperative: Urban Parks in the Age of Environmentalism • Eleanor Mahoney	The Job Corps Program: Waging a War on Poverty in the National Parks, 1964–1969 • Angela Sirma	Valuing Vision: Frances Payne Bolton and the Preservation of George Washington's "Overview" • John H. Sprinkle, Jr.		
		This session examines how shifting public policy priorities shape the creation and management of protected areas, with an emphasis on environmental, social and economic factors.					
		Collaboration Sessions bring attendees together to work on a specific project. At the end of the session, the organizers will give attendees the opportunity to help complete the project.					
		Compass Sessions ask two questions: "Where are we?" and, "Where do we want to go?" These sessions ask the audience to reflect on where we should go from here, with a range of possible directions.					
		Challenge Sessions ask members of the audience to question their assumptions. Attendees emerge from the session with their critical thinking faculties fully engaged.					
		Update Sessions bring attendees together to fill them in on the latest developments with regard to an project, program or issue. Attendees emerge from these sessions fully up-to-date on the topic.					
		Skills Sessions are hands-on training opportunities that increase the capacity of attendees to solve a specific problem. Attendees leave with new skills applicable to the problem.					

Meeting Room Diagrams



GWS CONCURRENT SESSIONS — ROOMS 201–211 • NATURAL SOUNDSCAPES ROOM — 212