

Conservation Without Borders



Society for Conservation Biology

20th Annual Meeting • San Jose, California, USA • 2006



Are We Consuming Too Much? The answer seems obvious. But it's not. Paul Ehrlich, Kenneth Arrow, and nine other brilliant minds argue that we're worrying too much about how much we consume and too little about how to invest.

Why Aren't Fish Populations Recovering? Evidence is mounting that fish populations won't necessarily recover even if fishing stops. Fishing may be such a powerful evolutionary force that we are running up a Darwinian debt for future generations.

What Makes Environmental Treaties Work? If the Kyoto Protocol fails, will it be because George Bush cares more about the oil industry than global warming? Or because it was a badly thought-out treaty?

Are Linguistic and Biological Diversity Linked? Ten out of 12 countries containing the world's highest biodiversity overlap with the top 25 countries for number of endemic languages.



If you're looking for insightful answers,
here's a magazine you should know about.



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WELCOME

The Society for Conservation Biology is delighted to welcome the global community of conservation professionals to *Conservation Without Borders*, our 20th annual meeting. All too often, conservation efforts are impeded by real and perceived boundaries such as scientific discipline, organizational affiliation, taxonomic expertise, geography, and politics. *Conservation Without Borders* aims to identify and strengthen links across ecological and sociological boundaries that are likely to increase our success both as individuals and as a professional community.

Conservation Without Borders will emphasize four major themes.

- Local-level and regional-level conservation. Conservation challenges addressed around the world but typically at relatively small scales, often using local knowledge.
- Marine and freshwater conservation. Certain conservation issues are distinct to aquatic or terrestrial environments. Other issues are germane to both. We will examine both categories of issues.
- 21st century conservation. Management of lands and waters in the face of changes in climate and population, application of conservation science to decision-making, and improved communication within and beyond the conservation community.
- Transboundary conservation. Many organisms and ecological processes cross political borders and management jurisdictions. Can we study and conserve them more effectively? How can we direct management toward large-scale processes without excluding local ecological and human communities?

We are excited to be meeting concurrently with the ninth annual international conference of the Society for Conservation GIS (Geographic Information Systems). Our two societies share the goal of creating an international community of conservation professionals and GIS practitioners to build conservation capacity and promote geospatial technologies at local, regional, and global levels. General schedules for both meetings are included in this program. Registrants for either meeting are encouraged to attend all events (technical and social) of both societies at no additional cost. Please join us on the evening of Tuesday 27 June for a silent and live benefit auction. Proceeds will be shared among our societies to support international and domestic scholarship programs that provide training and travel assistance to fellow conservationists.

We are deeply grateful to our co-hosts, sponsors, volunteers, and the many colleagues and friends whose commitment to conservation not only made this meeting possible but also encourages us to dedicate ourselves to advancing the science and practice of conserving the Earth's biological diversity. We hope you will enjoy the city of San José, the state of California, and the numerous opportunities for sharing, learning, networking, and fun as the Society for Conservation Biology and the journal *Conservation Biology* celebrate 21 years of history and look forward to the future.

The Society for Conservation GIS



The Society for Conservation Geographic Information Systems (SCGIS) is a 501(c)3 non-profit organization that works to assist conservationists worldwide in using GIS through communication, networking, scholarships, and training.

For more information about SCGIS, or to become a member, visit www.scgis.org or contact:

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TRANSBOUNDARY ISSUES

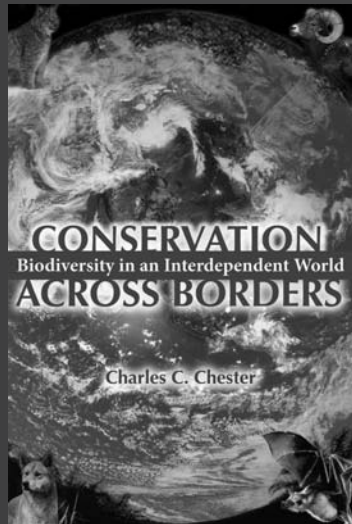
Conservation Across Borders

Biodiversity in an Interdependent World

Charles C. Chester

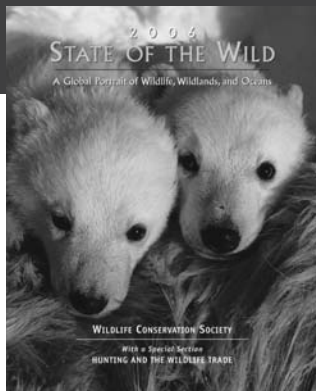
"Can well-intentioned grassroots actors, armed with leadership skills and good science, heal the gaping wounds sliced by political boundaries across homelands and habitats of human and non human species? Through deep, qualitative analysis of two civil society efforts of biodiversity preservation to transcend national boundaries of the United States, one on the northern and the other on the southern border, Charles Chester offers important and empowering insights."

—Helen Ingram, Warmington Endowed Chair, School of Social Ecology, University of California at Irvine



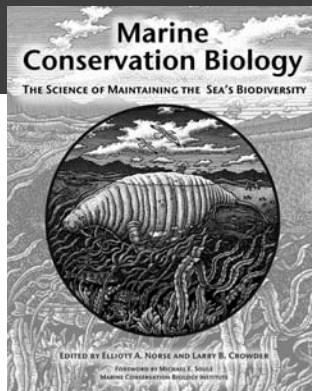
Paper: \$29.95 1-55963-611-4
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The experts speak



"State of the Wild 2006 contains some alarming figures about the loss of the wild but balances these with inspiring stories of efforts to maintain the wilderness areas that inspire so many of us to conserve the diversity of our planet."

—Jeffrey A. McNeely, chief scientist, IUCN –The World Conservation Union
Paper: \$25.00 1-59726-001-0
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"Finally! A superb state-of-the-art treatment of the science of marine conservation.... This tour de force will be an invaluable resource for anyone interested in the future of our planet. Rachel Carson would be proud. Seas the Day!"

—Jane Lubchenco, distinguished professor of zoology, Oregon State University
Paper: \$49.95 1-55963-662-9
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Conservation Without Borders is hosted by the Society for Conservation Biology, a global community of conservation professionals dedicated to advancing the science and practice of conserving the Earth's biological diversity. Co-hosts of the 2006 annual meeting are

North America Section, SCB
Austral and Neotropical America Section, SCB
Marine Section, SCB
Center for Conservation Biology, Stanford University
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Stanford University
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College of Natural Resources, University of
California, Berkeley

The 2006 meeting logo was developed by
Dave Johnston

TABLE OF CONTENTS

Maps & general information	6
SCB governance	8
SCB awards	10
Student activities	12
Exhibitors	13
Conservation social science	14
San Jose guide	16
Regional Section meetings	17
Scientific and social events, Sunday, 25 June	20
Scientific and social events, Monday, 26 June	36
Scientific and social events, Tuesday, 27 June	54
Scientific and social events, Wednesday, 28 June	66
Poster Presentations	79

SPECIAL EVENTS

SCGIS & SCB Benefit Auction • Tuesday 27 June
8:00–9:30 P.M., Ballroom A4-5

The Society for Conservation Biology and the Society for Conservation GIS will be conducting a silent and live auction to share treasures and artwork from around the globe. We invite you to come to the auction prepared to bid on some wonderful and exotic items. All money received from the auction will be shared by both societies to support international and domestic scholarship programs that provide travel and training assistance to fellow conservationists from around the world. Even if you have not donated an item or cannot bid, please come to the auction and socialize with other conservationists.

Conservation Biology Comes of Age
Celebrating 21 years of SCB
Wednesday 28 June
6:00–7:30 P.M., San Jose Civic Auditorium

Please join us in reflecting on SCB's past and looking forward at innovative ways that individuals and organizations are using to address conservation challenges in the twenty-first century. Brief and spirited presentations by a diverse set of speakers will be followed by a reception. The dress code for this event is casual, but we encourage all attendees to wear their favorite "biodiversity attire."

SCIENTIFIC "SPEED DATING"

A new experiment in presentation formats for scientific meetings • developed by Mac Hunter, Kent Redford, Nora Bynum, and Nick Salafsky

"I didn't have time to write you a short letter, so I wrote a long one instead."

– attributed to Blaise Pascal and / or Mark Twain

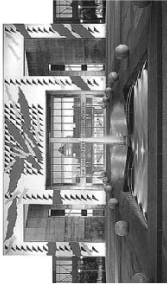
Are you

- Tired of attending a presentation of a paper that you expected to be exciting, discovering in the first two minutes that it doesn't interest you, and then suffering through the entire 15 minutes because you are too polite to leave and trapped in a middle seat?
- Looking for opportunities to engage in detailed conversation with presenters whose work appealed to you, but who disappear immediately after their session?
- Frustrated because you cannot attend as many presentations as you would like during concurrent sessions?
- Jittery because modern life has left you with a really short attention span and insufficient time to digest all of the journal articles you should be reading?

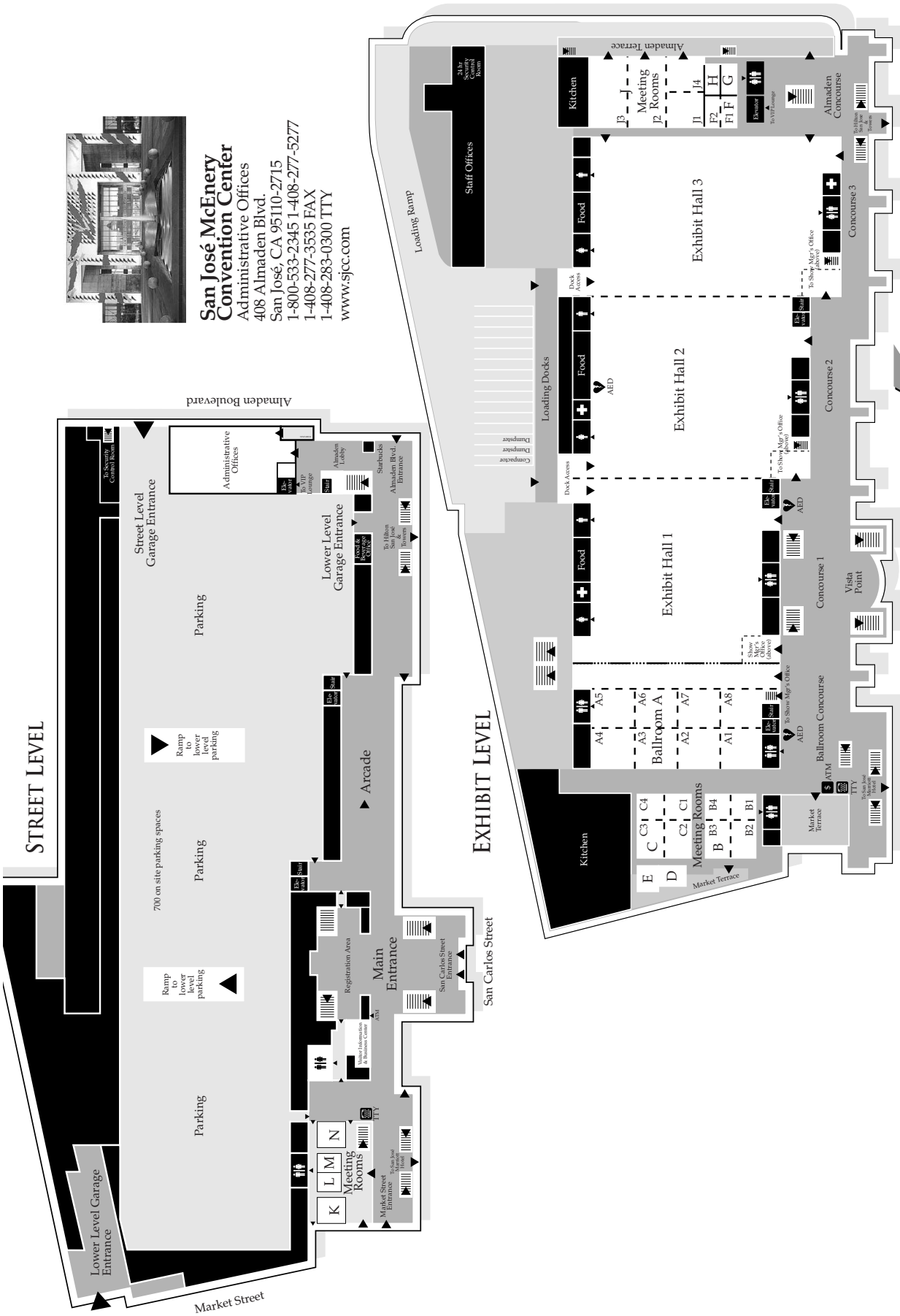
If you answered "yes" to any of these questions, never fear, speed presentations are here! You may have heard of "speed dating," spending five minutes each with a dozen prospective dates. In honor of our 20th anniversary meeting, SCB is going to adapt this concept to conduct an exciting experiment in alternative formats for meeting presentations.

At the 2006 annual meeting, in addition to the traditional formats for contributed oral and poster presentations, we will offer an experimental "speed presentation" option. We will have two speed presentation sessions. The first, from 4:00–6:00 P.M. on Sunday, 25 June, will include biologically-oriented papers. The second, from 10:00–12:00 A.M. on Wednesday, 28 June, will include social science and adaptive management-oriented papers. In the first hour of each session, 15 presenters will be given three minutes each to present their key ideas and results. In the second hour, presenters will station themselves at tables where they can interact with people who are interested in learning more about their work.

We look forward to seeing you at the sessions. Together, we will evaluate the outcome of this experiment to determine whether speed presentations should become a regular feature of our annual meetings. Help us discover what happens when MTV meets SCB.



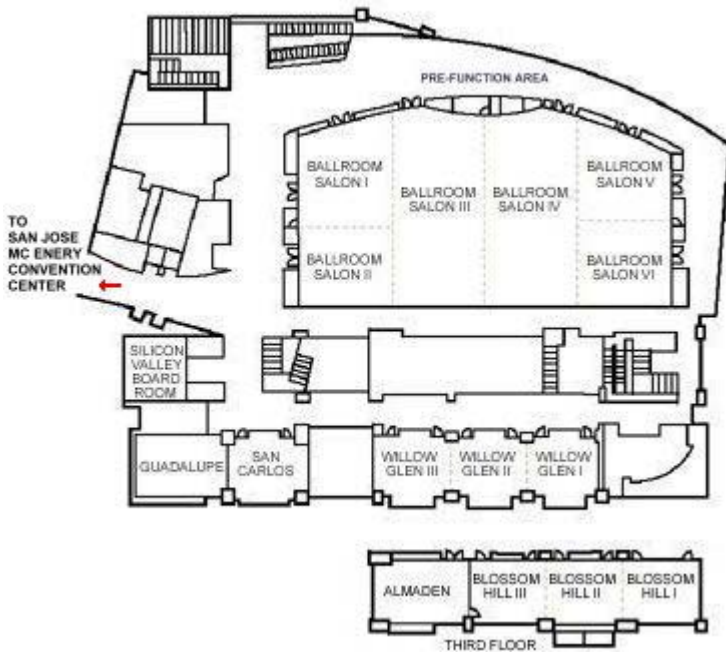
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SAN JOSE CONVENTION & CULTURAL FACILITIES



MEETING SPACE INFORMATION



GENERAL INFORMATION

All meeting events will be held in the San Jose Convention Center, San Jose Civic Auditorium (across the street from the Convention Center), Hilton San Jose (connected to the Convention Center), or Marriott San Jose (also connected to the Convention Center). Floor plans for the Hilton will be available at the meeting registration desk.

Most SCB-sponsored events will be held in the Convention Center, Civic Auditorium, or Hilton. Most SCGIS-sponsored events will be held in the Salon rooms at the Marriott.

WIRELESS ACCESS

Wireless internet access will be available in the vicinity of the Ballroom Concourse at the Convention Center.

PRESS ROOM

Registered members of the press are invited to use Meeting Room L of the Convention Center as a base for writing, relaxing, and informal meetings. Refreshments and an internet line will be available.

STUDENT LOUNGE

Students are invited to gather and network in Meeting Room M of the Convention Center. A job posting board will be available.

MERCHANDISE

Please visit the SCB and SCGIS booths in Exhibit Hall 1 to purchase t-shirts, wine glasses, and other items imprinted with society and meeting logos.

CONTACT NUMBERS

Emergencies	911
(life-threatening)	
Convention Center	1.408.277.5277
Hilton	1.408.287.2100
Marriott	1.408.280.1300
Crowne Plaza	1.800.240.8085
San Jose State	1.408.795.5672
University	
(dormitories)	



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David Michael Veverka • 1980–2006



Many of us have become somewhat numb to the constant litany of the world's troubles, such as wars in Iraq, Afghanistan, and Darfur; global climate change; and habitat loss. The list seems to go on forever. Given that SCB is a global organization, we know that at least one of our members is involved with each of these issues in one way or another, doing their best to make the world a better place. SCB's global effort comprises the actions of these individuals, people who have the strength to stand up and do what is right, even when the task ahead of them may seem impossible. The example they set provides strength to us, both as individuals and as an organization. I am sure we all can think of people who set examples of what truly can be accomplished if we dedicate ourselves fully to what we believe in.

At the University of Maine, we recently learned of the passing of one such individual, David Michael Veverka. David was an undergraduate student in the Department of Wildlife Ecology, and few students more clearly have demonstrated what is achievable in short period of time. David began his undergraduate degree in 2002, following three years serving as a member of the elite Old Guard of the 3rd U.S. Infantry at Arlington National Cemetery. Many students begin their academic career timidly, but David immediately applied himself to gaining the academic and practical

experience he would need to be an effective wildlife biologist. This began with his work as a field technician at Purdue University, working with the Upper Wabash Ecosystem Project. He then took his experience to the next level with the help of a National Science Foundation Research Experience for Undergraduates (REU) Award.

For many students, the REU scheme provides an opportunity to become involved in the research of other more established scientists. David used this funding to develop his own comprehensive research project, looking at the effects of forest harvesting on small mammals. The depth and complexity of his research was such that by the conclusion of a second year of REU funding, he had completed a project that in every way was equivalent to graduate level research. During this time he demonstrated an incredible academic work ethic, winning the University of Maine's Presidential Pin for Academic Excellence in 2003 and being featured on the Maine Dean's list in both 2003 and 2004. He also was awarded the Penobscot County Conservation Association Scholarship Award in 2003, 2004, and 2005, and served as President of the local chapter of SCB and Vice President of the student chapter of The Wildlife Society at the University of Maine.

As he continued through the University of Maine, David's passion gradually turned toward marine mammals, and he soon found himself assisting with research on neonatal development in harbour seals. He certainly would have followed this passion into graduate school. In 2005 David received an NSF GK12 teaching fellowship, allowing him to fulfil a lifelong ambition to teach ecology in the United States school system.



SCB's Student Affairs Committee is always trying to increase student involvement in the Society, and I can think of no better example for students than David Veverka. Reading the list of accomplishments above, it is hard to remember that all of this was achieved in less than four years at the university. David dedicated himself wholeheartedly to everything he did. He provides an incredible and humbling example of the opportunities that are available to undergraduate students, and what can be done with these opportunities if we truly dedicate ourselves. David was called up to Iraq in his final semester at the university, and was killed by a roadside bomb on Saturday 6 May 2006 along with another soldier, Staff Sergeant Dale J. Kelly, Jr. David went to Iraq with the same ethos that he showed in the rest of his life—the desire to help people in need. His passing has left an incredible hole here at the University of Maine that cannot be filled. The legacy that he left will remain with all of us, and I hope that some readers of this obituary will be able to gain strength from David and use him as an example of the difference that we are all capable of making in the field of conservation and the lives of others.

David Patrick

2006 Society for Conservation Biology Awards

Please join us in the San Jose Civic Auditorium at 6:00 P.M. on Saturday, 24 June for a ceremony honoring the accomplishments of SCB's 2006 recipients of the Edward T. LaRoe III Memorial Award and Distinguished Service Awards. The award ceremony will be followed by an opening reception at Ballroom Councourse and Concourse 1 at the San Jose Convention Center.

• EDWARD T. LAROE III MEMORIAL AWARD •

The Edward T. LaRoe III Memorial Award is given annually to an individual who has been a leader in translating principles of conservation biology into real-world conservation.

Stuart Pimm

Stuart Pimm, the Doris Duke Chair of Conservation Ecology at Duke University, has emerged as a strong scientific voice on the loss of biological diversity and the management of endangered species and ecosystems. Stuart's research revolutionized the way in which ecologists view ecological change in the long term, over large scales, and across many species. During the 1980s, he spent much time in Hawaii and elsewhere in the Pacific, drawing attention to non-native species and subsequently leading the team that first returned the Guam Rail to the wild. Stuart also is an able, aggressive advocate for maintaining a strong Endangered Species Act in the United States. In 1995, for example, he was among the fourteen eminent scientists who defeated the wise use movement's attempt to weaken protection for endangered species habitat before the U.S. Supreme Court. In addition, Stuart led the charge to strengthen the scientific basis for restoration of the Everglades by the U.S. Army Corps of Engineers. Along with profound understanding, Stuart cares enough to do what so many of his colleagues wish they could find a way to do.

• DISTINGUISHED SERVICE AWARDS •

Every year SCB presents its Distinguished Service Awards for outstanding contributions to conservation biology. Recipients are nominated by the SCB membership through the Awards Committee and are selected by the Board of Governors.

Javier Simonetti

Leadership in conservation biology research and education defines Javier Simonetti. Javier is an accomplished researcher and educator, as well as a communicator of science and skilled practitioner. He has been active in the field for well over 20 years, during which his activities have flourished and diversified. Javier's research encompasses landscape and disturbance ecology, fragmentation effects, invasive species, plant-animal interactions, and conservation genetics. He is active in teaching and training in his native Chile and throughout Latin America, and his research frequently has been incorporated into policy.

Thanks to Blackwell Publishing for supporting the 2006 Distinguished Service Awards and Student Awards.



Dee Boersma

Dee Boersma's outstanding research on seabirds, especially penguins, has enabled her to address conservation issues in the South Atlantic, train young Argentine biologists, and serve as a role model for women. She has served numerous organizations including the Wildlife Conservation Society, Conservation International, the Peregrine Fund, the International Union for Biological Science, the Washington Environmental Council, and many more. As President of SCB, Dee initiated activities that lie at the foundation of SCB's current health: a strategic planning process, publication of *Conservation In Practice*, a comprehensive analysis of endangered species recovery plans, and a book on research priorities in conservation biology.

Yolanda Kakabadse Navarro

Born in Quito, Ecuador, Yolanda Kakabadse is one of the world's most distinguished conservationists. In 1979, she was appointed Executive Director of Fundación Natura in Quito, which she helped transform into one of Latin America's leading NGOs. From 1990 to 1992, she coordinated the participation of civil society at the United Nations Conference for Environment and Development (Earth Summit). In 1993 Yolanda founded Fundación Futuro Latinoamericano, of which she is now the Executive President. From 1998–2000 she served as Minister of Environment for the Republic of Ecuador. In 1996, Yolanda was elected President of the World Conservation Union (IUCN).

Nature Conservation Foundation

Few organizations in India practice conservation with the scientific rigor, focus, and imagination that the Nature Conservation Foundation (NCF) uses to affect sustainable conservation. NCF's small, young, but very effective team has already provided new ideas or challenged existing ideas to ensure the growth of conservation thought. Their work has resulted in discovery of new species and is resulting in the restoration of many habitats using a combination of science and outreach that is presently unsurpassed in the region. NCF's vision is now leading to the addition of mature scientists to the region's workforce of conservation biologists.

Mark Burgman

Mark Burgman of The University of Melbourne has made outstanding contributions to the analysis of problems and practical management in conservation biology through his unique perspective of incorporating risk and uncertainty in the development of management options for conservation. His contributions to conservation biology extend from population viability analysis and risk management to general quantitative modeling approaches to conservation biology.

STUDENT AWARDS

Each year, SCB administers a Student Awards program, with prizes that include cash and books. All student authors of 15-minute contributed papers are eligible to enter the award competition.

These finalists for the 2006 SCB Student Awards will present their papers in a special two-part session from 1:30–3:30 and 4:00–6:00 P.M. on Monday 26 June in Ballroom A4-5. In addition to presentations by the finalists, the session will feature presentations by two recipients of SCB's 2006 Distinguished Service awards, Dee Boersma and Javier Simonetti. The sessions will be moderated by SCB Past Presidents Mac Hunter and Deborah Jensen.

A Student Awards Ceremony, at which the winners of the awards will be announced, will be held on the morning of 28 June, immediately before the plenary presentation by Jack Dangermond. Please join us at the session and the ceremony to celebrate the achievements of these students.

Student Award Finalists

JAMI BARNES

Linking population viability analysis and habitat suitability for the conservation of Audubon's Crested Caracara (*Caracara cheriway*) in Florida

MEGAN GAHL

Amphibian disease: can landscape features of breeding pools distinguish wetlands at risk?

ELIZABETH HARPER

Demographic consequences of buffer zone diameter for pond-breeding amphibian populations

WENDY KUNTZ

Identifying non-breeding habitat in mobile species: seasonal elevational movement in a Hawaiian honeycreeper

CAROLYN KURLE

Introduced rats indirectly transform island intertidal communities

DANIEL MCGARVEY

The "power" of science: confronting Type II error under the Endangered Species Act

JEFFREY MILDER

Assessing the conservation benefits of sensitive land development

DAVID PATRICK

Effects of forest harvesting on juvenile amphibian dispersal

RYAN SENSENIG

Spatial ecology of fire in an East African savannah: effects of burn size and patchiness on the foraging ecology of grazers of varying body size

JENNIFER SOLOMON

Polling for poachers: testing a unique method for estimating illegal resource use in protected areas

CHRISTOPHER STALLINGS

Indirect effects of fishing on coral-reef fish communities

MYA THOMPSON

Applied acoustic monitoring: African forest elephant population estimates from Kakum National Park, Ghana

WENDY KUNTZ

Identifying non-breeding habitat in mobile species: seasonal elevational movement in a Hawaiian honeycreeper



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STUDENT ACTIVITIES

Student Awards

Each year, SCB administers a Student Awards program, with prizes that include cash and books. All student authors of 15-minute contributed papers are eligible to enter the award competition. Finalists for the 2006 Student Awards will present their papers in a special dedicated session on the afternoon of Monday 26 June. Awards will be presented on the morning of 28 June. Please see page 11 for more details about this year's finalists and events.

Smith Fellows

SCB leads the David H. Smith Conservation Research Fellowship Program, a postdoctoral fellowship program established to help address the pressing need for scientifically validated approaches to identify critical conservation areas and to conserve biodiversity at priority sites. Past and current Smith Fellows will present research on conservation planning in a session on the morning of Monday 26 June. More information about the fellowship program will be available at the SCB booth in the exhibition area.

Student Lounge: Convention Center, Meeting Room M

A comfortable place for students to unwind with old and new friends and to hold small-group meetings. A bulletin board for job postings and other announcements will be available.

Welcome Social: 5:00 P.M., Saturday 24 June

Students are invited to join SCB's Board of Governors and staff in the Santa Clara Room of the Hilton for an informal social hour preceding the awards ceremony and opening reception.

Publication Workshop: 12:00 noon, Sunday 25 June

This session with the editorial staff of *Conservation Biology* is intended to open up the "black box" of publishing in scientific journals while offering tips for improved chances of success. Topics such as selecting the right journal, basic manuscript preparation, cover letter writing, submittal, the review processes, addressing reviews, and the rest of the publication process will be discussed in general terms. Some specific orientation toward *Conservation Biology* will be included. There will be extensive opportunity for questions and general discussion with the journal Editors.

Lunch with the Board of Governors:

12:00 noon, Monday 26 June

Bring your lunch to the Almaden Ballroom of the Hilton. Learn about SCB initiatives and activities, gather information on conservation professions, and discuss your priorities and ideas with SCB's governors and staff.

Topic Area Lunch:

12:00 noon, Wednesday 28 June

Bring your lunch to Ballroom A4-5 and enjoy this opportunity to interact informally with other SCB members who have similar disciplinary interests. This event is not restricted to students; it is open to all meeting attendees. Active SCB Working Groups on social sciences and freshwater conservation already have emerged from topic area lunches at previous annual meetings.

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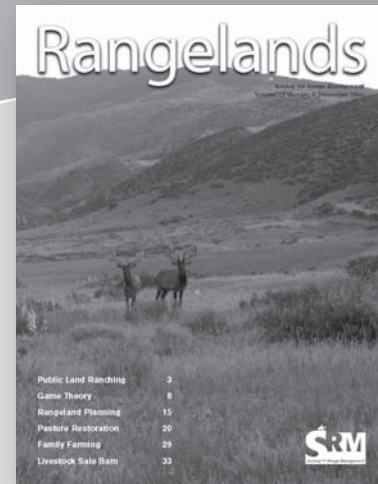
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PLEASE JOIN US IN WELCOMING THE
FOLLOWING EXHIBITORS TO THE 2006
ANNUAL MEETING

Exhibits will be open each day from
approximately 9:30 A.M. to 6:00 P.M. in
Exhibit Hall 1. Morning and afternoon
refreshment breaks also will be served in the
exhibit hall.

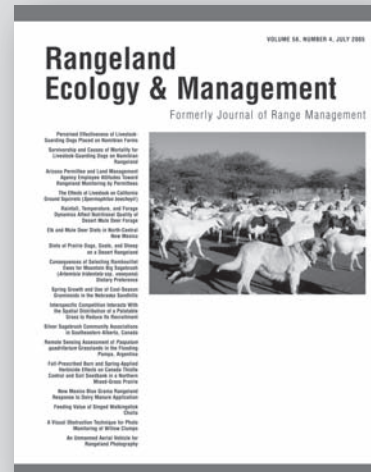
- A Rocha USA
- Blackwell Publishing
- BP Conservation Programme
- California Department of Parks and
Recreation
- Conservation In Practice*
- Defenders of Wildlife
- Genetic Identification Services
- Island Press
- Jones & Stokes
- Lotek Wireless
- Nelson Mandela Metropolitan University,
Terrestrial Ecology Research Unit
- Oxford University Press
- Pew Institute for Ocean Science
- Society for Conservation Biology
- Society for Conservation Biology Local
Chapters
- Seafood Watch Program, Monterey Bay
Aquarium
- SERDP & ESTCP
- Sinauer Associates, Inc., Publishers
- Society for Conservation GIS
- Springer
- Stylus Publishing
- U.S. Fish and Wildlife Service
- U.S. Geological Survey
- University of California Press
- University of Chicago Press
- West Coast Ballast Outreach Project
- Wildlife Conservation Network
- Working Group for Ecological Economics
and Sustainability Science
- Yale University Press



Rangelands

[rānj'länd, -lənd] *n.*

1: journal, published bi-monthly 2: provides
readers with scientifically accurate information
in a user friendly format, placed in context of
the world we live in today



Rangeland Ecology & Management

[i-'kä-lə-jē, e-][mān'ij-mənt] *n.*

1: journal, published bi-monthly 2: a forum
for the presentation and discussion of facts,
ideas, and philosophies pertaining to the study,
management and use of rangelands



CONSERVATION SOCIAL SCIENCE: What's in the Black Box?

Social science is gaining increasing prominence within SCB, but "conservation social science" may be a mysterious "black box" to some conservation scientists and practitioners. Social science will be represented strongly throughout the 2006 annual meeting. To assist meeting participants, SCB's Social Science Working Group offered to develop a primer on conservation social science: definitions, scope, and conservation relevance.

Conservation social science is the study of the conservation-relevant aspects of human society, including the relationships among humans and between humans and their environment. Since successful conservation inevitably requires changes in human behavior, drawing upon decades of social science research to better understand what people do, and why, provides valuable insights for conservation policy and practice. Economic research regarding the role of information in decision-making, for example, represents the social scientific basis for market-based conservation strategies like Marine Stewardship Council ecolabeling and Forest Stewardship Council certification. Similarly, psychological research on learning and behavior change forms the scientific underpinnings of social marketing campaigns like those developed by RARE, which have catalyzed popular support for biodiversity conservation in St. Lucia, Indonesia, Mexico, and elsewhere.

Conservation social science is currently emerging as a recognized field of study, although several social science disciplines have long traditions of conservation-relevant research. Anthropology, economics, human geography, political science, psychology, and sociology are the most commonly recognized social science disciplines, although some also include history, legal studies, and other disciplines within the social sciences. Each discipline has developed its own term(s) to describe its branch(es) of conservation social science, including

- Environmental or ecological anthropology
- Environmental, natural resource, or ecological economics
- Environmental or conservation geography
- Environmental politics and policy
- Environmental or conservation psychology
- Environmental sociology
- Environmental history

Most general social science professional societies have established formal working groups or sections focusing on environmental or conservation issues; some disciplines have even established separate conservation-oriented professional societies.

Conservation social scientists (like all conservation scientists) study a variety of conservation-relevant research questions, at a variety of scales, using a variety of methods. Common research topics include conservation attitudes, beliefs, and values; cultural traditions and norms; resource use patterns; economic valuation of ecosystem goods and services; natural resource governance; and environmental social movements. In investigating these issues and others, social scientists use diverse research designs (e.g., controlled experiments, comparative case studies, surveys) to gather quantitative and qualitative information through a wide array of data collection methods, including direct observation, interviews, text analysis, participatory mapping, and remote sensing.

Conservation social *science*, of course, is distinct from social *policy* and social *wellbeing*. Like all science, conservation social science attempts to develop a richer understanding of how the world works through systematic and rigorous inquiry. Social policy, by contrast, is a specific course of action established by decision-makers (often politicians, but not necessarily so) to achieve a particular set of outcomes. Social wellbeing is the state or condition of human welfare in a particular place or among a particular group of people. Conservation social scientists study both social policy and social wellbeing, but understanding these phenomena (science) is distinct from deciding what should be done (policy). Thus, integrating social science into conservation policy remains a challenge. Fortunately, some conservation social scientists study the role of science in the policy process, so there is a scientific foundation for improving the effectiveness of science in conservation policy.

Conservation social scientists can make particularly critical contributions to conservation policy and practice in three areas. First, *where* should the conservation community focus its efforts? Conservation biologists obviously have done tremendous work to determine the distribution and abundance of rare and threatened species and

ecosystems; conservation social scientists can enhance these efforts, for example, by identifying socially significant elements of landscapes (e.g., through valuation of ecosystem services); “enabling environments” for conservation (e.g., sacred forests); and “policy windows” for conservation action. Second, *how* should the conservation community design and implement its conservation interventions? A diverse array of conservation strategies exist, but conservation social scientists can help to identify what strategies will work best in a given context, help make existing strategies more effective (e.g., enhancing compliance with protected area regulations), and identify and develop novel, complementary strategies (e.g., the 21st century equivalent of ecolabeling). The third broad area where conservation social science can contribute is to help answer the question, “*What are the impacts of our conservation interventions?*” Documenting and rigorously evaluating the social and biological impacts (positive and negative) of our conservation interventions can help the conservation community learn from experience, replicate success, and initiate the science-based reforms necessary for socially and ecologically sustainable biodiversity conservation.

For more information about SCB's Social Science Working Group, please attend the meeting at 12:00 on Monday, 26 June and visit www.conbio.org/WorkingGroups/SSWG/

The following papers provide brief introductions to some of the conservation social sciences.

Mascia, M.B., J.P. Brosius, T.A. Dobson, B.C. Forbes, L. Horowitz, M.A. McKean, and N.J. Turner. 2003. Conservation and the social sciences. *Conservation Biology* 17:629–630.

Orlove, B.S. and S.B. Brush. 1996. Anthropology and the conservation of biodiversity. *Annual Review of Anthropology* 25:329–352.

Armsworth, P.R. and J.E. Roughgarden. 2001. An invitation to ecological economics. *Trends in Ecology and Evolution* 18:229–234.

Saunders, C.D. 2003. The emerging field of conservation psychology. *Human Ecology Review* 10:137–149.

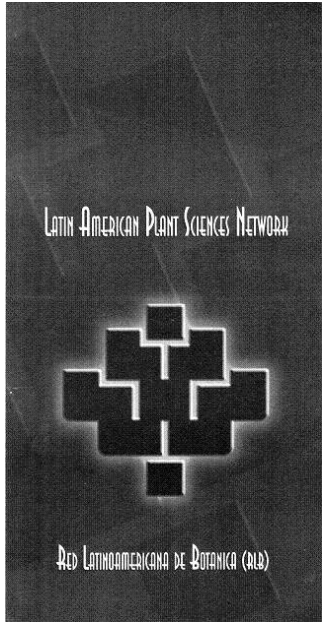
Mike Mascia


www.rlb-botanica.org

Red Latinoamericana de Botánica: Capacity Building and Partnership for the Development of Plant Sciences and Conservation of Biodiversity in Latin America

Latin America harbors a megadiverse flora that is being endangered by over exploitation and inadequate management. Since 1988 the Red Latinoamericana de Botánica (RLB - Latin American Plant Sciences Network) has been engaged in the task of improving the number of qualified Latin American botanists in order to adequately survey the vegetation, understand the functioning of the ecosystems and provide the basis for the conservation and management of the important natural resources of the Region. This is being achieved by training young botanists from Latin American countries using the expertise and infrastructure available in more than 25 qualified scientific institutions located in 6 Latin American countries.

For general information, please visit the homepage or write to rlb@uchile.cl.





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**The Woods Institute for the Environment
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Insider's Guide to Downtown San Jose

Recommendations from a long-time resident of San Jose. Maps of the downtown area and additional information on local attractions and restaurants will be available at the registration desk.

Walks

Walk along the Guadalupe River. 1 block west of the Convention Center. See an innovative new urban flood protection and riparian restoration project. Walk north along the river (downstream).

Walk to Plaza de Cesar Chavez. From the Convention Center, walk east to Market Street and turn left (north). Enjoy the interactive fountains.

Martin Luther King / San Jose State University Library. Walk east on East San Carlos Street, turn left on Fourth Street. About 7 blocks. This new and innovative building has a seven-story atrium inside and is one of the first joint city / university libraries in the country.

New San Jose City Hall. Go to the King Library (see above) and continue 1 more block north to East Santa Clara and turn right. Opened in 2005, this stunning complex boasts a free-standing glass dome.

Museums

Tech Museum of Innovation. Corner of Park Avenue and Market Street (1 block north of the Convention Center).

Children's Discovery Museum. 2 blocks west of the Convention Center across the Guadalupe River on Woz Way.

San Jose Museum of Art. Market Street and West San Fernando (2 blocks north of the Convention Center)

San Jose Museum of Quilts and Textiles. 520 South First Street between East William and East Reed Streets (1 block east and 3 blocks south of the Convention Center).

Music

Farmer's Market. Food, gifts, and live music (10:00 A.M.–2:00 P.M. on Fridays, San Pedro Square)

Miller Music in the Other Park. 29 June, 5:30 P.M.–9:00 P.M., St. James Park at First Street and St. James.

Movies

Camera 12 Cinema. First runs and independent films. South Second Street between East San Fernando and Paseo de San Antonio.

Cinema San Pedro. Classic movie shown on outdoor screen (free). 28 June, 7:30 P.M., San Pedro Square.

Recommended Restaurants

Shalimar Indian Cuisine. West San Fernando between San Pedro and Almaden, about 3 blocks north of the Convention Center.

Original Joe's. Old-style Italian. Corner of West San Carlos and South First Street.

Eulipia. California cuisine. on South First Street south of West San Carlos.

Il Fornaio. Italian. In the Larkspur St. Claire at corner of West San Carlos and Market Street.

Bella Mia. Italian. On South First Street at Post.

Hawg's Seafood Bar. On South Second Street by Paseo de San Antonio (next to San Jose Repertory Theatre)

Gordon Biersch Brewing Company. West San Fernando Street between First and Second Streets.

Tied House Microbrewery. 65 North San Pedro, north of West Santa Clara.

House of Siam. Thai. 151 South Second Street between East San Fernando and Paseo de San Antonio.

McCormick & Schmick's. Upscale seafood. 170 South Market Street, in the Fairmont Hotel Annex.

Pizz'a Chicago. Deep-dish pizza. 155 West San Fernando.

Togo's. Quick sandwiches. 125 Paseo de San Antonio, near South Third Street and San Jose State University.

Le Boulanger. Quick sandwiches. 95 South Market Street.

REGIONAL SECTION MEETINGS

Share ideas, meet with colleagues, and help set the path of conservation in your region of interest.

Meetings of SCB's Regional Sections will be held at 12:00 noon on Tuesday 27 June. Please bring your lunch and visit with fellow conservationists.

Africa Section: Ballroom A1
Asia Section: Ballroom A2
Austral and Neotropical America
Section: Ballroom A3
Australasia Section: Ballroom A6
Europe Section: Ballroom A7
Marine Section: Ballroom A8
North America Section: Ballroom A4-5

Section Boards of Directors will meet at breakfast on Tuesday, 27 June. Please see page 54 for locations.

Need a meeting room?
One or more rooms will be available for ad-hoc meetings at most times. Please see one of the Steering Committee members at the registration desk for more information.

conservation biology

NEW FROM CHICAGO

INFINITE NATURE

R. Bruce Hull

232 P., 1 LINE DRAWING, 2 TABLES

SUSTAINABILITY

A Philosophy of Adaptive Ecosystem Management

Bryan G. Norton

608 P., 12 LINE DRAWINGS

EXTINCTION AND BIOGEOGRAPHY OF TROPICAL PACIFIC BIRDS

David W. Steadman

480 P., 108 HALFTONES, 133 LINE DRAWINGS

EMERGING THREATS TO TROPICAL FORESTS

William F. Laurance and Carlos A. Peres

520 P., 44 HALFTONES, 63 LINE DRAWINGS, 27 TABLES

GLOBALIZATION AND NEW GEOGRAPHIES OF CONSERVATION

Edited by Karl S. Zimmerer

400 P., 16 HALFTONES, 14 LINE DRAWINGS, 7 TABLES

OCEANS

An Illustrated Reference

Dorrik Stow

256 P., ILLUSTRATED IN COLOR THROUGHOUT

FRESHWATER FISHES OF MÉXICO

Robert Rush Miller, W. L. Minckley,
and Steven Mark Norris

652 P., 96 COLOR PLATES, 314 HALFTONES, 233 LINE DRAWINGS, 509 MAPS, 8 TABLES

New in paperback

THE AMPHIBIANS AND REPTILES OF COSTA RICA

A Herpetofauna between Two Continents,
between Two Seas

Jay M. Savage

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954 P., 516 COLOR PLATES, 396 MAPS, 335 LINE DRAWINGS, 36 TABLES

THE NATURAL HISTORY OF MADAGASCAR

Edited by Steven M. Goodman and Jonathan P. Benstead

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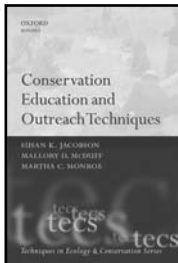
A HANDBOOK OF TECHNIQUES

SUSAN K. JACOBSON, MALLORY D. MCDUFF, AND MARTHA C. MONROE

The conservation of biological diversity ultimately depends on people's knowledge and actions. This book presents the theory and practice for creating effective education and outreach programmes for conservation.

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FORESTS AND SOCIETY

SUSTAINABILITY AND LIFE CYCLES OF FORESTS IN HUMAN LANDSCAPES

KRISTIINA VOGT, JON HONEA, DANIEL J. VOGT, MICHAEL ANDREU, ROBERT EDMONDS, JOYCE BERRY, RAGNHILDUR SIGURDARDOTTIR, AND TORAL PATEL-WEYNAND

Topics covered in this textbook include attitudes to, and uses of forests, the creation of today's forest landscapes, the impact of humans on forests, and forest sustainability and human health. The relationships between forests and society is examined with real-world case studies from the US, Bolivia, China, Iceland, India, Kenya, Philippines, and many others.

(CABI Publishing)

September 2006 paper \$60.00

BIODIVERSITY, ECOSYSTEMS, AND CONSERVATION IN NORTHERN MEXICO

EDITED BY JEAN-LUC E. CARTRON, GERARDO CEBALLOS, AND RICHARD STEPHEN FELGER

This book describes the biodiversity and biogeography of northern Mexico, documents the biological importance of regional ecosystems and the impacts of human land use on the conservation status of plants and wildlife. It should become the standard source document for the conservation status of species and ecosystems in this region, which is of unusual biological interest because of its high biodiversity and highly varied landscape and biological zonation.

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BOBCAT

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KEVIN HANSEN

Bobcat: Master of Survival tells the story of the most adaptable and resilient wild feline in the world. While half the wild cat species worldwide are in danger, the bobcat is thriving, even expanding its range in North America. The book probes this diminutive predator's habits and behavior: how they hunt, kill prey, raise their young, coexist with humans, and deftly navigate the endless obstacles to survival. The author examines how economics and politics play a far greater role in bobcat management and conservation than does science. *Bobcat* is the most comprehensive and up-to-date book on the natural history and management of bobcats to appear in 40 years.

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LONG-TERM ECOLOGICAL RESEARCH ON NORTH TEMPERATE LAKES

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THE BIOLOGY OF FRESHWATER WETLANDS

ARNOLD G. VAN DER VALK

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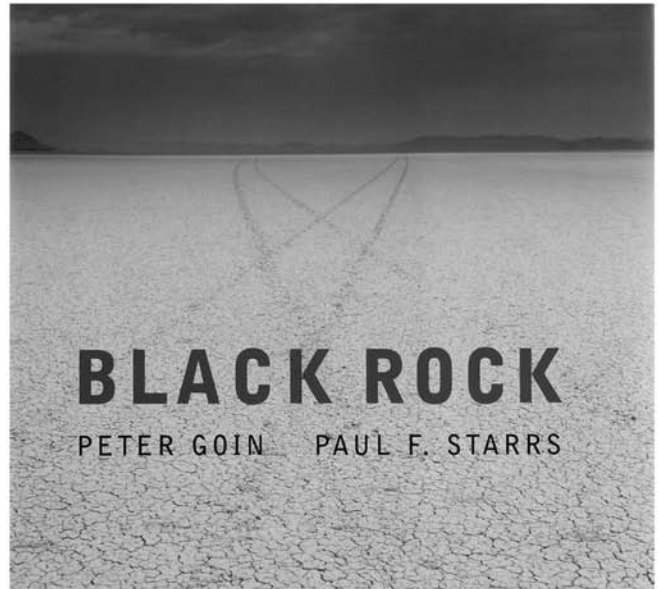
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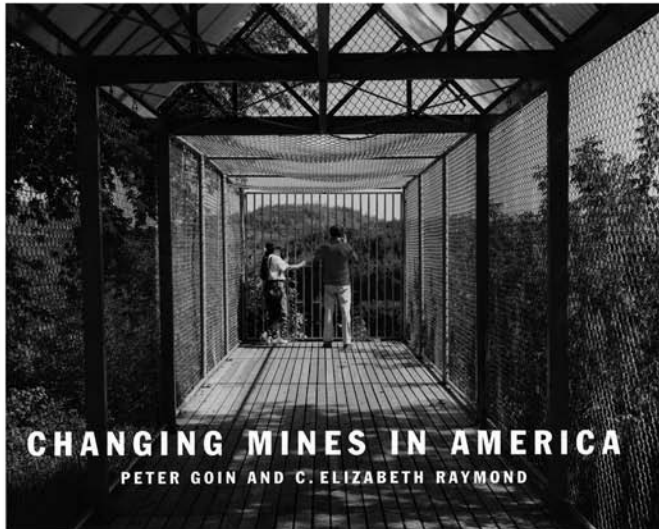
Stephen Trimble



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ORDER INFORMATION: CHANGING MINES IN AMERICA
ISBN 1930066120 240 PAGES
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Most Americans today view mines as little more than ugly scars on the landscapes, places with no connection to an American way of life.

This creative new work by Peter Goin and C. Elizabeth Raymond, however, will force many to rethink that impression.

The Authors present eight visual and historical essays that examine eight mining sites across the United States and their roles in American history and culture. The volume’s engaging writing and striking photographs show how mines are not simply physical degradations, but rather unique cultural artifacts of the American landscape.

Society for Conservation Biology • Sunday, 25 June

Sunday 25 June

		Plenary Session: Steven Sanderson San Jose Civic Auditorium										
8:30												8:30
9:00												9:00
9:30		Break										9:30
10:00												10:00
10:30	Symposium: California Current Marine Ecosystem Meeting Room B	Symposium: Policy Sciences Meeting Room C	Conservation Education Ballroom A1	Publication Workshop for Students Ballroom A4-5	Workshop: Program Evaluation Ballroom A2	Workshop: Human Demography Ballroom A3	Workshop: Transboundary Resource Management Ballroom A6	Predictive Conservation Ecology Ballroom A6	Protected Area Design Ballroom A7	Transboundary Conservation Ballroom A8		10:30
11:00												11:00
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12:00												12:00
12:30												12:30
13:00												13:00
13:30												13:30
14:00	Symposium: Bycatch Assessment Meeting Room B		Symposium: From Enmity to Cooperation Ballroom A4-5		Capacity Building Ballroom A2	Conservation GIS Ballroom A3	Conservation Psychology Ballroom A6		Ecological Restoration Ballroom A7	Marine Conservation Science Ballroom A8		14:00
14:30												14:30
15:00												15:00
15:30												15:30
16:00												16:00
16:30	Symposium: Bycatch Assessment Meeting Room B		Conservation at the Land-Water Interface Ballroom A1		Conservation of Wide Ranging Taxa Ballroom A2	Environmental Economics Ballroom A3	Spatial Ecology Ballroom A6		Speed Presentations Almaden Ballroom (Hilton)	Sustainable Agriculture Ballroom A8		16:30
17:00												17:00
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21:00												21:00
Keynote Address: Bruce Babbitt San Jose Civic Auditorium												

Society for Conservation GIS • Sunday, 25 June

Sunday 25 June

8:30	Joint Plenary Session: Steven Sanderson			8:30
9:00				9:00
9:30	Break			9:30
10:00	Best Practices in Conservation GIS and Ecological Data Management Salon II	Workshop: Creating Custom Conservation Tools with the ESRI Geoprocessing Framework Salon III	GIS Reserve Design Tools for Marine Conservation Salon IV	10:00
10:30				10:30
11:00				11:00
11:30				11:30
12:00	Lunch and Networking			12:00
12:30				12:30
13:00				13:00
13:30	Conservation Informatics, Infrastructure, and Open Source Salon II	Workshop: Introduction to Watershed Based Raster Analysis using Spatial Analyst Salon III	GIS Tools for Marine and Aquatic Species Conservation Salon IV	13:30
14:00				14:00
14:30				14:30
15:00				15:00
15:30	Break			15:30
16:00	New Visualization Tools: What's Out There and How Best Can We Use It? Salon II	Workshop: Introduction to GIS for Habitat Analysis and Home Range Estimation Salon III	Tools for Ecosystem-Based Management in Coastal and Marine Environments Salon IV	16:00
16:30				16:30
17:00				17:00
17:30				17:30

Plenary Session—Dr. Steven E. Sanderson

8:30–9:30, San Jose Civic Auditorium

Conservation Without Borders: If the Walls Come Down, Will the Roof Cave In?

Conservationists in the field and research scientists alike struggle to define appropriate boundaries for their disciplines. Scientific objects of study and areas / wildlife targeted for protection require analytical and practical limits. Because of the increasing consensus that bounded systems important to conservation are, in fact, connected, we see increasing pressure to "cross open ground" among related disciplines and activities. To think of conservation today at a global scale without considering the timing and incidence of global environmental change seems quaint. To propose conservation of vulnerable species in protected areas alone is to risk missing dynamics and spatial considerations critical to the species' survival. To propose conservation without considering the "human question" is to ignore the pervasive global human footprint. The need for conservation without borders is clear. However, it is unclear that individual disciplines or the institutional stewards of science and conservation are presently able to take on this integrative challenge. This presentation will focus on the shortcomings of existing approaches to conservation, the institutional settings that favor imbedded disciplinary approaches, and the dangers and opportunities of engaging a conservation agenda without borders. The point of the talk will be to challenge conservationists to embrace powerful new agendas without sacrificing the integrity of the disciplines required for scientific understanding and conservation success.

Symposium—Policy and Management Implications of Large-Scale, Interdisciplinary

Meeting Room B

Studies of the California Current Large Marine Ecosystem

organized by Mark Carr and Cinamon Vann (Partnership for Interdisciplinary Studies of Coastal Oceans)

This symposium will review current interdisciplinary scientific research within the California Current Large Marine Ecosystem (CCLME) and examine how large-scale, cross-boundary research programs can inform a broad range of resource management and conservation issues. Despite increased interest in ecosystem-based management, few studies examine the ecosystem-wide patterns of change and long-term processes of the CCLME. Large marine ecosystems cross political and management divides, and we will examine two primary implications: (1) how new scientific findings from research of large geographic scales or long time periods can affect and inform major policy decisions and (2) how research from different disciplines can provide complementary insights with direct relevance to ecosystem-based management. Specific topics that will be discussed include fisheries management, the design and consequences of coastal terrestrial and marine protected areas, and assessing impacts of climate change. This symposium will provide results-based information on how approaches to conservation could be altered to better reflect large-scale ecosystem patterns and processes. Additionally, the diversity of disciplines (ecological monitoring, inter tidal, sub tidal, oceanography, genetics, microchemistry, ecophysiology) offers holistic perspectives to conservation issues in the nearshore marine system.

- 10:00 Management and conservation implications of multi-scale patterns of variation in kelp forest ecosystems
CARR, MARK, Jennifer Caselle, Craig Syms, Mark Readdie, and Dan Malone
- 10:15 Long-term monitoring of intertidal resources and implications for the management of coastal ecosystems
READDIE, MARK, Pete Raimondi, Carol Blanchette, and Bruce Menge
- 10:30 Determining connections among marine populations: implications for management
WARNER, ROBERT
- 10:45 The geography of recruitment in the coastal ocean: the challenges for management
GAINES, STEVEN, Bernardo Brotiman, Brian Kinlan, and Carol Blanchette
- 11:00 Spatial and temporal patterns of oceanographic processes across the California Current large marine ecosystem: implications for scales of management
BARTH, JOHN
- 11:15 Impact of climate cycles on supply of food and recruits to rocky intertidal habitats
MENGE, BRUCE
- 11:30 Effects of warming waters on marine species: an ecophysiology approach to assessing effects of climate change
HOFMANN, GRETCHEN
- 11:45 Spatial structure and climate change: accounting for spatial patterns in marine reserve design
Halpern, Ben and BRIAN KINLAN

Symposium—Integrative Conservation Problem Solving: the Policy Sciences as a tool

Meeting Room C

to Bridge the Natural and Social Sciences

organized by Richard Wallace (Ursinus College), Tim Clark (Yale University), and Murray Rutherford (Simon Fraser University)

The future of successful conservation is the integration of multiple disciplines, including those concerned with biodiversity and those that address the human social and political processes that are necessary to achieve conservation strategies and goals. While much has been written about the need for interdisciplinary integration, few case studies offer systematic guides to how it can be accomplished in practice, and only a small number of these have been presented or published. This symposium will highlight the benefits to conservation of the policy sciences' interdisciplinary problem solving framework. The policy sciences are an integrative, interdisciplinary field of scholarship and practice that is, like conservation biology, explicitly problem-oriented. Practitioners of these methods use cases to illustrate how knowledge from the natural and social sciences can be integrated in practice. This integration emphasizes the interplay between the natural science that forms the basis for understanding conservation problems in a technical sense and the social processes that underlie human actions that cause conservation to succeed or fail. It allows for context-specific alternatives to flow from analysis, and provides a framework for comparing experiences across cases and drawing lessons applicable to other settings. It is the capacity of the policy sciences to disentangle this complexity that marks its particular value to

conservation biology. The studies which we will use to illustrate our efforts include community-based conservation in Latin America; the integration of science, management, and policy in the implementation of the Marine Mammal Protection Act and Endangered Species Act in the United States; and managing complexity for conservation goals across ecological and political boundaries in the northern Rocky Mountains of the United States and Canada.

- 10:00 Improving conservation biology through integrating biology and the social sciences: needs, methods, examples, and opportunities
CLARK, TIM, Murray Rutherford, Richard Wallace, and David Mattson
- 10:15 Conservation conundrums: unraveling social process in community-based conservation
WILSHUSEN, PETER
- 10:30 What the history of the Marine Mammal Protection Act teaches us about innovation in United States government conservation
WALLACE, RICHARD and Kathryn Semmens
- 10:45 Oversight to insight: the U.S. Marine Mammal Commission as a prototype of government evaluation
SEMMENS, KATHRYN and Richard Wallace
- 11:00 Searching for Greater Yellowstone's science policy: a preliminary investigation into the relationship between science, society, and nature
CHERNEY, DAVID
- 11:15 Interdisciplinary problem solving for grizzly bear conservation in the Banff–Bow Valley region of Alberta, Canada
RUTHERFORD, MURRAY and Mike Gibeau
- 11:30 Conflict over carnivores: a window on natural resources governance
MATTSON, DAVID
- 11:45 Lessons from integrative conservation
WALLACE, RICHARD, Tim Clark, Murray Rutherford, and David Mattson

Conservation Education

Ballroom A1

Moderator: Susan Jacobson

- 10:00 Participatory planning for park outreach and recreation in the Bahamas
JACOBSON, SUSAN, Lisa Marks, Taylor Stein, Lynn Gape, and Monique Sweeting
- 10:15 Researcher–community collaborations in a critically threatened Chihuahuan Desert biodiversity hotspot in Mexico
HENDRICKSON, DEAN
- 10:30 Of teens and tubeworms: diversity in Hawaii's intertidal zone
ZABIN, CHELA and Erin Baumgartner
- 10:45 Educating for engagement: high school environmental science curriculum in a diverse, rural New Mexico community
GAHL COLE, ANNA
- 11:00 Choices and change in the Arctic National Wildlife Refuge: adventures in interdisciplinary education on complex conservation issues
SECORD, DAVID, Nathan Mantua, and Terry Rustan
- 11:15 Beyond training: assessing the implementation of an environmental education program for wetlands in the Sonoran coast
DE LA GARZA, MEREDITH
- 11:30 Thinking about dolphin thinking: the impact of social narratives regarding dolphins on public attitudes toward conservation
FRASER, JOHN, Diana Reiss, and Paul Boyle
- 11:45 Cross-country comparison of national red lists with the IUCN Red List and implications for conservation planning
BRITO, DANIEL, Matthew Foster, David Knox, Naamal De Silva, Adriano Paglia, Jose Vicente Rodriguez, Ruth Grace Ambal, and Jon Paul Rodriguez

Invasive Species

Ballroom A2

Moderator: J. Hall Cushman

- 10:00 Human activity linked to spread of pathogen that causes sudden oak death
CUSHMAN, J. HALL and Ross Meentemeyer
- 10:15 Control of nonnative grasses enhances growth and survival of endangered Bakersfield cactus
CYPHER, ELLEN
- 10:30 Management techniques for control of molasses grass (*Melinis minutiflora*) in the Brazilian cerrado
HAY, JOHN and Carlos Martins
- 10:45 Temporal, spatial and ecological patterns of bioinvasions in the Mediterranean Sea
RILOV, GIL
- 11:00 Measuring performance of invasive plant eradication efforts in New Zealand
HOLLORAN, PETE
- 11:15 Self-fertility in invasive cordgrass hybrids overcomes pollen limitation and generates rapid spread
SLOOP, CHRISTINA, Debra Ayres, Heather Davis, and Donald Strong
- 11:30

Conservation Without Borders • Sunday, 25 June

- 11:45 Controlling spatial spread of the introduced cordgrass *Spartina alterniflora*: a Bayesian decision analysis
BUHLE, ERIC, Blake Feist, and Ray Hilborn

Inventory and Monitoring

Ballroom A3

Moderator: James Hallett

- 10:00 Gabon's national park system: baseline wildlife and human impact surveys
MAISELS, FIONA, Aaba Rostend, Gaspard Abitsi, Martha Bechem Ebot, Nicolas Bout, Hjalmar Kuehl, Stephanie Latour, Peter Walsh, and Marc Ella Akou
- 10:15 Seasonal abundance and habitat-use patterns of parrots in Guatemala using a canopy-based survey method to estimate density
BJORK, ROBIN, Fred Ramsey, and David Whitacre
- 10:30 Evaluating restoration trajectories using similarity indices: dam mitigation in the Pacific Northwest, USA
HALLETT, JAMES, Margaret O'Connell, and Ray Entz
- 10:45 Documenting San Diego County, California's flora: a partnership between the public and scientific communities
Rebman, Jon and MARY ANN HAWKE
- 11:00 Recent anthropogenic changes within the northern boreal, southern taiga, and Hudson plains ecozones of Quebec
STANOJEVIC, ZORAN, Peter Lee, and Jennette Gysbers
- 11:15 Temporal changes in species evenness as an indicator of disturbance
ROSSON JR., JAMES
- 11:30 Adaptive cluster sampling of rare species
MORRISON, LLOYD, Craig Young, and David Smith
- 11:45 Identifying threats to elephants in central Africa using spatial modeling of survey data
BEYERS, RENE and John Hart

Predictive Conservation Ecology

Ballroom A6

Moderator: Steven Beissinger

- 10:00 Reconstructing the historical demography of an endangered seabird to diagnose causes of decline
BEISSINGER, STEVEN and M. Zachariah Peery
- 10:15 Simulations comparing the performance of techniques used to assess variable importance: implications for analysis of noisy ecological data
MURRAY BERGER, KIM and Mary Conner
- 10:30 Modelling bird species distributions to inform landscape planning for biodiversity management
THOMSON, JIM, Ralph Mac Nally, Erica Fleishman, and Greg Horrocks
- 10:45 A multispecies risk assessment for rare and imperiled species in Florida
Barnes, Jami and KAREN ROOT
- 11:00 A comparison of the predictive accuracy of spatially and non-spatially explicit species distribution models
LIESKE, DAVID and Darren Bender
- 11:15 Model without age structure may overestimate risks: using scalar models for precautionary assessments of threatened species
DUNHAM, AMY, H. Resit Akcakaya, and Todd Bridges
- 11:30 Predicting biodiversity pattern using multi-spectral satellite imagery
HOOKER, JOSH
- 11:45 Does extinction risk scale from a local to global level?
COLLEN, BEN, Andy Purvis, and Georgina Mace

Protected Area Design

Ballroom A7

Moderator: Michael Westphal

- 10:00 Fish responses to five neighboring marine reserves in the Philippines: similarities and differences
SAMOILYS, MELITA, Keith Martin-Smith, Brian Giles, Brian Cabrera, Jonathan Anticamara, Erwin Brunio, and AMANDA C.J. VINCENT
- 10:15 Five miles, or one? How survey protocols can effect landscape-scale conservation
WESTPHAL, MICHAEL and Richard Seymour
- 10:30 Will bees be left behind by traditional conservation planning in rapidly changing landscapes?
REYNOLDS, MARK, Gretchen LeBuhn, Matt Merrifield, Erin Rentz, and Emily Heaton
- 10:45 The role of ethnographic research in protected area design: experiences from Milne Bay, Papua New Guinea
BRODNIG, GERNOT and Sultana Bashir
- 11:00 Assessing the relative contribution of protected areas to the conservation of key biodiversity features in Mpumalanga, South Africa
VICKERS, KAREN, Matheiu Rouget, Mervyn Lotter, and Morne du Plessis
- 11:15 Saving the family jewels: prioritizing species in a national context
MANNE, LISA and Paul Williams

- 11:30 Assessing the effectiveness of protected area management: a case study from Nepal
BASNET, KHADGA
- 11:45 Identifying globally important sites for conservation within a west African biodiversity hotspot
Diallo, Mammadou Saliou, MAMADE KOBELE, David Knox, and Soua Nema Loua

Transboundary Conservation
Moderator: Charles Chester

Ballroom A8

- 10:00 Conservation of wild tigers in transboundary Asia
GINSBERG, JOSHUA, Gosia Bryja, Jessica Forrest, Andrea Heydlauff, Eric Dinerstein, Sybille Klenzendorf, Peter Leimgruber, Colby Loucks, Tim O'Brien, John Seidensticker, Eric Sanderson, Melissa Songer, and Eric Wikramanayake
- 10:15 A prioritized assessment of transboundary conservation opportunities in Latin America
TOLISANO, JAMES, Jeff Silverman, Carrie Brown-Lima, and Christine Ageton
- 10:30 Collaborative modeling to support biodiversity conservation across ownership boundaries: the Manitou Forest modeling project in Minnesota
MANOLIS, JAMES, Meredith Cornett, Cheryl Adams, D. Lawson Gerdes, Anthony Starfield, Daryl Peterson, Mark White, and Thomas Crow
- 10:45 A global analysis of internationally adjoining protected areas: current extent and future potential for transboundary approaches
Besancon, Charles and CONRAD SAVY
- 11:00 Priority conservation areas from Baja California to the Bering Sea
TSAO, FAN and Lance Morgan
- 11:15 The promise and peril of transboundary protected areas
PICARD, CATHERINE
- 11:30 The last of the transboundary wild areas: opportunities for conservation and international cooperation
GOMEZ, ANDRES, Kevin Olival, Malanding Jaiteh, and Marc Levy
- 11:45 Nongovernmental transboundary conservation in North America: the effectiveness of civil society conservationists working across international borders
CHESTER, CHARLES

Workshop—Helpful Hints on Publishing Your Papers

12:00–1:30, Ballroom A4-5

This session with the editorial staff of *Conservation Biology* is intended for students or those otherwise just starting writing for scientific journals. It is intended to open up the “black box” of publishing in scientific journals while offering tips for improved chances of success. Topics such as selecting the right journal, basic manuscript preparation, cover letter writing, submittal, the review processes, addressing reviews, and the rest of the publication process will be discussed in general terms. Some specific orientation toward *Conservation Biology* will be included. There will be extensive opportunity for questions and general discussion.

Workshop—How do We Know It's Working? State of the Art Program Evaluation
for Conservation Science and Policy
organized by Subhrendu Pattanayak (RTI International) and Paul Ferraro (Georgia State University)

12:00–1:30, Ballroom A2

For too long, scientists and practitioners have depended on intuition and anecdote to guide conservation investments. To maximize the conservation impact of our limited resources, the conservation field must adopt a culture of rigorous program evaluation. Without such a culture, identifying which of the competing conservation approaches will make best use of scarce conservation dollars in the 21st century conservation is impossible. We will start by showing how current “monitoring and evaluation” efforts focus on descriptive indicators (i.e., administrative metrics of change) instead of the fundamental evaluation question: what would have happened if there had been no intervention? (a counterfactual event that is not observed). Presentations will draw on ongoing program evaluations in the United States and the tropics to discuss methods—experimental and quasi-experimental—that can be applied to draw reliable inferences about causal effects. Evidence on such effects can help identify, design and justify effective interventions. We also will discuss the relative merits of alternative methods when the state-of-the-art methods cannot be applied. Each conservation project that builds in these methods will make a small but vital contribution towards filling the large gap in our knowledge about the most effective conservation investments.

Workshop—Human Demographic Change and Biodiversity Conservation:
Impacts and Opportunities for the Conservation Sector
organized by Judy Oglethorpe (World Wildlife Fund)

12:00–1:30, Ballroom A3

The workshop aims to provide a state-of-the-art review of adverse impacts of migration, fertility, and HIV/AIDS on biodiversity, and to provide conservation practitioners with strategies to tackle these threats. Global human population is expected to grow from 6.5 billion in 2005 to 9.1 billion in 2050, with increased consumption of natural resources, loss of habitat, and pollution. Human migration to biodiversity-rich areas is also likely to increase, driven by population growth, environmental degradation, globalization of trade, and climate change. HIV / AIDS is reducing life expectancy and economic productivity in some regions, with serious impacts on conservation capacity, natural resources, and land use. A number of cutting-edge responses to adverse demographic impacts have emerged at different scales, often involving conservation practitioners collaborating with other sectors. Experts will outline global trends and major negative impacts on biodiversity, and present responses for conservation programs. These include integrated family planning-health-environment projects at site and landscape level and ways to scale up and complement them.

Migration interventions include prevention and mitigation of impacts in areas of destination, at field and policy levels. HIV/AIDS responses include ways to protect conservation staff and community capacity, and to reduce impacts on land and natural resource use while promoting sustainable livelihoods.

Workshop—Can Transboundary Natural Resource Management (TBNRM) Contribute to Enhance Conservation Objectives and Address Poverty Alleviation Issues in Border Regions? A Case Study of the Virunga–Bwindi TBNRM organized by Kayitare Anecto (International Gorilla Conservation Programme, Rwanda) 12:00–1:30, Ballroom A6

Biodiversity conservation and poverty alleviation are important topics on the international agenda; the Convention on Biodiversity Diversity (CBD) highlights the importance of biodiversity conservation, and poverty alleviation is the first priority of the Millennium Development Goals (MDGs). Biodiversity-rich countries in Africa are also economically poor countries and the challenge to achieve both poverty alleviation and biodiversity conservation is not easy. The need to link biodiversity conservation and development has been recognized and many initiatives have been undertaken. Transboundary Natural Resources Management (TBNRM) is a recent initiative whose objectives cover conservation and socioeconomic development needs with a holistic approach in border regions. This workshop will address the relationship between TBNRM and conservation and poverty alleviation in the Virunga–Bwindi region. The TBNRM approach offers an opportunity to deal with conservation and socioeconomic issues in the Virunga–Bwindi region. However, TBNRM has many objectives such as conservation, socioeconomic integration, and economic development. Different institutions and agencies are likely to adopt different objectives and agenda. In the Virunga–Bwindi region, we have found that the TBNRM program, which has been facilitated by conservation organizations (IGCP), focused more on conservation objectives than poverty alleviation. Partnership is very important in achieving TBNRM objectives in the Virunga–Bwindi region.

Organized Discussion—Breaching Educational Borders: Teaching Conservation Biology to Non-Majors led by Peter Hodum and Michael Marchetti (Juan Fernandez Islands Conservancy) and Michael Marchetti (California State University, Chico) 12:00–1:30, Ballroom A7

With the continued growth of conservation biology as an academic discipline, an increasing number of colleges and universities are beginning to offer non-majors courses focusing on biodiversity and conservation. For students who may only take a single biology course during their college career, biodiversity and conservation can provide effective unifying themes with which to link together and apply a number of fundamental biological concepts. Given that the vast majority of college students are not science majors and will not work as professional scientists, conservation-themed courses for non-majors can provide an effective means of creating a more informed and scientifically savvy public. The purpose of this round-table discussion is to share ideas, thoughts, experiences, and pedagogical tools about how to effectively develop a non-majors college course based on the themes of conservation biology / conservation of biodiversity. The discussion initially will focus on identifying (1) fundamental biological concepts that need to be addressed before one can discuss the biology of conservation and how they are most effectively conveyed, (2) conservation biology concepts that should be included in a non-majors course, (3) how laboratory and field activities can enhance a lecture course, and (4) educational resources that exist for non-majors conservation biology courses.

Symposium—Scaling up the Assessment of Bycatch: Regional to Global Impacts of Fisheries on Seabirds, Mammals, and Turtles (continues at 4:00) Meeting Room B organized by Rebecca Lewison (San Diego State University) and Larry Crowder (Duke University)

Fisheries bycatch (incidental take) of seabirds, sea turtles, and marine mammals has been on the conservation “radar” for nearly 25 years. However, understanding the impacts of bycatch, identifying environmental correlates or mechanisms, and preventing bycatch through mitigation measures and changes in policy continues to be a challenge. Bycatch research is hampered by the need to deal with data uncertainty and inherent variability, the widespread distribution of many large ocean-dwelling vertebrates that are vulnerable to incidental take, and the difficulties with characterizing the three-dimensional ocean habitat where these organisms and fishing vessels coexist. This symposium will focus on integrative, novel approaches and innovative techniques that are enhancing bycatch research.

- 1:30 Bycatch of marine mammals, seabirds, and sea turtles in the world’s fisheries
READ, ANDREW
- 1:45 Capturing the spatial and temporal variability in bycatch data
FERRARO, PAUL, Craig McIntosh, Monica Ospina, and Michelle Sims
- 2:00 Oceanographic features, fishing pressure and endangered species: an integrated spatial analysis framework to identify bycatch hotspots
HALPIN, PATRICK
- 2:30 Quantifying the effect of human activities on natural populations with limited data: impact of longline fishery on adult survival of Black-footed Albatross
Veran, Sophie, OLIVIER GIMENEZ, Elizabeth Flint, William Kendall, Paul Doherty, and Jean-Dominique Lebreton
- 2:45 Modeling the population history of a top predator: ecological restrictions and human-induced impacts
ARATA, JAVIER and Paul Sievert
- 3:00 New approaches to examining the ecological consequences of bycatch
FITZGERALD, GRETCHEN
- 3:15 Mapping the bycatch landscape: considering bycatch risk across taxa and gear types
LEWISON, REBECCA, Bryan Wallace, Ramunas Zydulis, and Daniel Dunn

Symposium—Conservation Along the United States–Mexico Border:

Meeting Room C

Binational Solutions for our Shared Problems (continues at 4:00)

organized by Laura Lopez-Hoffman (Universidad Nacional Autonoma de México) and Karl Flessa (University of Arizona)

The United States and México share a 3100 km border, from the Gulf of México to the Pacific Ocean. The border region is beautiful; there are large deserts, numerous mountain ranges, rivers, wetlands, and estuaries. The region's varied climates give rise to great biological diversity, including many rare and native species of plants and animals. There is a rich ethnic diversity, as the border region is home to many groups of indigenous people. But, just as the countries share natural resources such as water, air, and land, they also share numerous environmental problems. Furthermore, the border region is characterized by sharp social, economic, and political contrasts. Given the paramount ecological and social importance of the border, our symposium will bring together conservation practitioners from the United States and México to discuss topics including shared ecosystem services and species corridors, the implementation of binational conservation and environmental programs, the ethics of binational conservation, and the history and future of conservation on the United States–México border. Symposium participants not only will discuss problems along the border but will propose ways that conservation practitioners from the United States and México can work together to forge binational solutions to the conservation challenges of the United States–México border in the 21st century.

- 1:30 Ecosystem services cross the Mexico–United States border
LOPEZ-HOFFMAN, LAURA, Karl Flessa, and Patty Balvanera
- 1:45 An idea in development: a conceptual history of conservation in the United States–Mexican border region
WARD, EVAN
- 2:00 Conservation across the United States–Mexico border: historical–geographical insights
SAYRE, NATHAN
- 2:15 Finding water to sustain and restore the Colorado Delta: sources, amounts and future prospects
FLESSA, KARL and Francisco Zamora-Arroyo
- 2:30 Conservation of biodiversity in the Colorado River delta: acknowledging the role of local communities
CARRILLO, YAMILETT
- 2:45 International challenges for water conservation in the Colorado River delta: understanding and promoting water use change in a booming coastal tourist community
TURK BOYER, PEGGY
- 3:00 Conservation in the Colorado River delta and upper Gulf of California through an ecosystem-based management approach
CALDERON AGUILERA, LUIS
- 3:15 Escalera Ecológica: a staircase of reserves through the Gulf of California–Sonoran Desert region
FELGER, RICHARD, Exequiel Ezcurra, Wallace Nichols, Laura Lopez-Hoffman, and Adrian Quijada-Mascarenas
- 3:30 Binational cooperation for community based conservation and sustainable development in the Gulf of California
VALDES-CASILLAS, CARLOS
- 3:45 Convergence of stressors on protected desert ecosystems in the border region of Arizona
MORRISON, PETER

Symposium—From Political Enmity to Ecological Cooperation:
the Israeli–Jordanian Experience

Ballroom A4-5

organized by Uri Shanas (University of Haifa, Israel)

The southern Arava desert ecosystem, part of the Great Rift Valley, has been politically divided in the past 58 years between Israel and Jordan. When a peace treaty was signed between the two countries in 1994, human development in this ecosystem was dichotomous. On the Israeli side, there is high-input agricultural kibbutzim whereas there are pastoral Bedouin villages in Jordan. A joint Israeli–Jordanian biodiversity study was conducted on both sides of the border, encompassing various taxonomic groups in an effort to elucidate the effect of these different land uses on diversity. We studied the diversity and community structure of beetles, spiders, antlions, reptiles, rodents, and birds during a two year study comparing different landscape units at different distances from agricultural lands at both sides of the border. Our study shows different patterns of diversity that appear to be associated with the contrasting anthropogenic activities. We show that the way diversity is affected by either modern societies or traditional societies is dependent on the taxonomic group that serves as a surrogate. Nevertheless, the general trend shows that diversity loss is associated more with modern rather than traditional society. We suggests that in addition to effects of habitats and human obvious disturbances such as modern agricultural practices, cultural differences between societies should be accounted for when conservation plans are developed for cross border ecosystems.

- 1:30 Seeking the ecological dividends in the Middle East process
TAL, ALON
- 1:45 Human societies and rodent community structure along the Israeli–Jordanian border
SHANAS, URI, Yunes Abu Galyun, Mohammed Alshamlh, Jonathan Cnaani, Fares Khoury, Shacham Mittler, Khaled Nassar, Idan Shapira, Danny Simon, Hatem Sultan, Elad Topel, Dalit Ucitel, and Yaron Ziv
- 2:00 Reptile diversity across the political border of the Arava Valley
Nassar, Khaled, RAMI SALEH, and Uri Shanas
- 2:15 The effect of agricultural development on fox abundance and gerbil foraging behaviors in the Arava Valley desert ecosystem adjoining Israel and Jordan
SHAPIRA, IDAN and Uri Shanas

Conservation Without Borders • Sunday, 25 June

- 2:30 The impact of intensive agriculture on the bird community of a sand dune desert
Khoury, Fares and MOHAMMED ALSHAMLIH
- 2:45 Pit-building antlions (Neuroptera, Myrmeleontidae) in the south Arava Valley need the desert gazelle (*Gazella dorcas*) to complete their life cycle
MITTLER, SHACHAM, Danny Simon, and Uri Shanas
- 3:00 Green islands in arid environments: the effect of artificially productive patches on beetle assemblages in arid environment
TOPEL, ELAD, Uri Shanas, and Yaron Ziv
- 3:15 Building peace through environmental protection
MUHYAR, MUNQETH

Capacity Building

Ballroom A2

moderator: Delali Dovie

- 1:30 Paradise disputed: an evaluation of decision making and moral authenticity in Hawaii's land use commission
NAGLE, FIONA
- 1:45 Trans-Atlantic learning: shared conservation approaches from North America and Africa
MEADE, JONATHAN and Laly Lichtenfeld
- 2:00 Defining community training objectives for co-management of protected areas
BERNSTEIN, SCOTT
- 2:15 Fragmented forest of Cebu Island, Philippines: conservation status and prospects for recovery
PAGUNTALAN, LISA MARIE, Philip Godfrey Jakosalem, and Orlyn Orlanes
- 2:30 The Nature Conservancy's conservation by design toolkit—capturing and sharing conservation knowledge
ESSELMAN, REBECCA and Jonathan Higgins
- 2:45 Community-based African wild dog conservation in the biodiversity hotspots of southeastern Kenya: results of a baseline attitude survey
Robbins, Robert and KIM MCCREERY
- 3:00 Catalyzing community conservation: a guide to developing socially sustainable projects
HORWICH, ROBERT, Scott Bernstein, and Jon Lyon
- 3:15 Group hug for lakes: the determinants and efficacy of social capital in lake associations
KRAMER, DANIEL

Conservation GIS

Ballroom A3

moderator: James Strittholt

- 1:30 Melding planning and opportunity driven conservation using advances in spatial data models
MERRIFIELD, MATT, Mary Gleason, Dick Cameron, and Rebecca Shaw
- 1:45 Data building blocks for mapping high conservation value forests in boreal Canada
STRITTHOLT, JAMES, Peter Lee, John Bergquist, Mathieu Federspiel, and Nancy Staus
- 2:00 Assessment of habitat conditions for riparian brush rabbits on the San Joaquin River National Wildlife Refuge in central California
KELLY, PATRICK, Scott Phillips, and Laurissa Hamilton
- 2:15 Use of habitat variables at multiple ecological scales to predict koala occurrence in the city of Ballarat, Victoria, Australia
JANUCHOWSKI, STEPHANIE, Clive McAlpine, John Callaghan, Carol Griffin, Michiala Bowen, Dave Mitchell, and Rolf Schlagloth
- 2:30 Impact of marine activities in British Columbia, Canada
BAN, NATALIE and Jackie Alder
- 2:45 Using GIS as a tool to predict the distribution of naturally fishless lakes in Maine, USA
Schilling, Emily, CYNTHIA LOFTIN, and Katie DeGoosh
- 3:00 A deep-sea coral conservation strategy: using GIS to map coral distribution, human threats, and model predictive coral habitats in United States waters
Guinotte, John, LANCE MORGAN, and Fan Tsao
- 3:15 Using conservation GIS to detect oak savannas and oak barrens in northwest Ohio
RICCI, MARCUS, Helen Michaels, and Karen Root

Conservation Psychology

Ballroom A6

moderator: Carol Saunders

- 1:30 Emotion 101: applying psychological theory and research to conservation conflicts
VINING, JOANNE
- 1:45 Values aren't the problem: value similarity among stakeholders involved in environmental disputes
LAVALLEE, LORAINE
- 2:00 Creating a social science research agenda for protecting biodiversity in the Chicago region
MCCANCE, ELIZABETH and Carol Saunders

- 2:15 Sustaining the conservationist: the psychology of working with environmental degradation
Pantesco, Victor, Cynthia Harris, and JOHN FRASER
- 2:30 Using psychology to enhance snake conservation
CHRISTOFFEL, REBECCA and Shawn Riley
- 2:45 But, everybody's doing it! Using social norms to promote conservation
NOLAN, JESSICA and P. Wesley Schultz
- 3:00 Synergy in conservation education: the importance of continuity and repetition in achieving attitude and behavioral change
DASHIELL, STEPHANIE, Kathryn Rodriguez-Clark, Maria Alejandra Faria Romero, Jon Paul Rodriguez, Rachel Neugarten, and Maria Cellamare

Ecological Restoration
moderator: Elizabeth Gray

Ballroom A7

- 1:30 Restoration without borders: a large-scale ESA-listed elkhorn coral (*Acropora palmata*) transplant example from the Dominican Republic, year three
BEZY, M. BERNADETTE and Greg Matuzak
- 1:45 Instability versus stability of avian community composition in riparian habitats of the Intermountain West: what's going on?
DOBKIN, DAVID, Susan Earnst, and Jeannie Heltzel
- 2:00 Conservation and mitigation banking: theory and practice in California
BARCOMB, LINDA and James Fine
- 2:15 Does excluding cattle from riparian areas improve bird richness and abundance? An experimental test
GRAY, ELIZABETH, Jim Evans, and Larry Serpa
- 2:30 Restoring resources for an endangered butterfly: what does a decade of monitoring tell us?
SCHULTZ, CHERYL and Elizabeth Crone
- 2:45 Understory plant responses to thinning and burning of ponderosa pine stands in eastern Washington, USA
NELSON, CARA, Charles Halpern, and James Agee
- 3:00 Habitat use of whitebark pine (*Pinus albicaulis*) forests by Clark's Nutcracker (*Nucifraga columbiana*): implications for restoration
MCKINNEY, SHAWN, Carl Fiedler, and Diana Tomback
- 3:15

Marine Conservation Science
moderator: Michael Mascia

Ballroom A8

- 1:30 Patterns of genetic connectivity in marine species at multiple scales: implications for the management of coral reefs
DREW, JOSHUA, Les Kaufman, Gerry Allen, and Paul Barber
- 1:45 Conservation of biodiversity and ecosystem function in coral reef seascapes
MICHELI, FIORENZA, Peter Mumby, Craig Dahlgren, Alastair Harborne, Carrie Kappel, Daniel Brumbaugh, Katherine Holmes, Alan Hastings, Julie Kellner, Stephen Litvin, Kenneth Broad, and James Sanichirico
- 2:00 Social impacts of marine protected areas: a global review
MASCIA, MICHAEL
- 2:15 Where agencies fear to tread: incorporating socioeconomic data into the design of marine protected areas in central California
SCHOLZ, ASTRID, Charles Steinback, and Mike Mertens
- 2:30 Are rivers important for marine dolphins? Towards the conservation of two linked ecosystems in the Chilean northern Patagonian fjords
VIDDI, FRANCISCO, Loreto Balkenhol, Sandra Ribeiro, Rodrigo Hucke-Gaete, Ana de la Torre, Juan Torres-Florez, Sonja Heinrich, and Maximiliano Bello
- 2:45 Do southern California fish populations depend on larval supply from Mexico?
SELKOE, KIMBERLY, Steven Gaines, Crow White, and Giacomo Bernardi
- 3:00 Focusing regional marine conservation efforts with graph theory
TREMEL, ERIC and Pat Halpin
- 3:15 Large old females and the efficacy of marine protected areas
DE LEO, GIULIO, Fiorenza Micheli, and Ray Hilborn

Symposium—Scaling up the Assessment of Bycatch: Regional to Global Impacts of Fisheries on Seabirds, Mammals, and Turtles (continued)

Meeting Room B

- 4:00 Ocean life on the line: a review of bycatch mitigation from around the world
WERNER, TIMOTHY, Scott Kraus, and Andrew Read
- 4:15 Integrating the expertise of non-credentialed experts to improve the invention of bycatch reduction devices
JENKINS, LEKELIA

Conservation Without Borders • Sunday, 25 June

- 4:30 Mitigating the bycatch of sea turtles, seabirds, and marine mammals: from experimental evaluation to implementation in commercial fisheries
COX, TARA, Larry Crowder, Rebecca Lewison, Carl Safina, Andy Read, Ramunas Zydulis, and Bryan Wallace
- 4:45 Citizen science: a tool for bycatch monitoring and bottom-up change
PARRISH, JULIA
- 5:00 Population level impacts of small-scale fisheries bycatch on highly-migratory megavertebrates: a case study of loggerhead turtle mortality at Baja California
PECKHAM, HOYT and Wallace Nichols
- 5:15 Eliminating the incidental capture and mortality of leatherback turtles in tropical coastal waters
ECKERT, SCOTT and Karen Eckert
- 5:30 Sea turtles and longlines in the Eastern Pacific: a continental-scale program to reduce incidental mortality
HALL, MARTIN, Erick Largacha, Takahisa Mituhasi, Manuel Parrales, Liliانا Rendon, Vanessa Velasquez, Lilian Barreto, Luis Zapata, Michael Valqui, Jairo Calderon, Mariela Pajuelo, Nelly de Paz, Amado Cruz Garcia, Shaleyla Kelez, Camelia Manrique, Lucas Pacheco, Moises Mug, Alvaro Segura, Sonia Salaverria, Sara Perez, Erick Villagran, Ruben Lopez, Mario Jolon, Regina Sanchez, Kim Davis, Irene Kinan, Charles Bergman, Christofer Boggs, Jeffrey Seminoff, and Yonat Swimmer
- 5:45 Global bycatch assessment and mitigation: challenges, solutions, and new directions
CROWDER, LARRY

Symposium—Conservation Along the United States–Mexico Border: Binational Solutions for our Shared Problems (continued)

Meeting Room C

- 4:00 Landscape ecology and metapopulation dynamics of two large carnivores in the Chihuahuan Desert: challenges of cross-border wildlife conservation
HARVESON, PATRICIA
- 4:15 Trafficking with a Pandora Box: illegal wildlife trade in the Mexico–United States Border
QUIJADA-MASCARENAS, ADRIAN, Rodrigo Medellin, and Jon Paul Rodriguez
- 4:30 Conservation of the prairie dog grasslands in northern Mexico and southwestern United States
CEBALLOS, GERARDO and Rurik List
- 4:45 Rio Grande, water under fire—border patrols and boundary objects
KLAVER, IRENE
- 5:00 A binational collaborative effort to address the ecological decline of the Big Bend reach of the Rio Grande / Rio Bravo
BRIGGS, MARK
- 5:15 Restoration of the Bahia Grande wetlands, south Texas
HEISE, ELIZABETH
- 5:30 Preserving natural and cultural resources along the border: a “two-fer”
KOERNER, ELAINE and Paul Ganster
- 5:45 The dialectics of “La Linea”: protecting cultural and natural diversity across the fence
EZCURRA, EXEQUIEL

Conservation at the Land-Water Interface moderator: Kelly Burnett

Ballroom A1

- 4:00 Current population and conservation status of the critically endangered dwarf carnivores of Cozumel Island, Mexico
MCFADDEN, KATHERINE, Rodrigo Medellin, and Matthew Gompper
- 4:15 An introduced predator alters Aleutian Island plant communities by thwarting nutrient subsidies from sea to land
ROLL, DONALD, John Maron, James Estes, Eric Danner, Sarah Elmendorf, and Stacey Buckelew
- 4:30 Regional characterization of riparian and upslope vegetation to guide stream habitat protection and restoration
BURNETT, KELLY, Janet Ohmann, Luca Moiana, and Ken Vance-Borland
- 4:45 The buck stops at the coast: utilizing a spatially-explicit threat analysis to determine land and sea conservation priorities
FERDANA, ZACH, Michael Beck, and Dan Dorfman
- 5:00 Posiedon meets Artemis: a method for integrating terrestrial and marine conservation planning
FERDANA, ZACH, Heather Tallis, and Elizabeth Gray
- 5:15 Limnological environment of northern leopard frog (*Rana pipiens*) tadpoles: implications for growth strategies and wetland management
POULIOT, DANIEL and Jean-Jacques Frenette
- 5:30 Top ten most endangered river basins: global case studies highlighting the greatest threats
WONG, CARISSA, Chris Williams, Ute Collier, Patricia Schelle, and Jamie Pittock
- 5:45 Conservation significance of temperate floodplain springbrooks
ANDERSON, MICHELLE and Jack Stanford

Conservation of Wide Ranging Taxa
 moderator: J. Christopher Haney

Ballroom A2

- 4:00 Corridors, elephant movements and social issues in western Ghana
 KUMORDZI, BRIGHT BOYE, Ebenezer Daryl Bosu, Frank Tetteh-Kumah, Aba Odoi-Agyareko, and Beatrice Sakyibea Biney
- 4:15 Decline of charismatic mammals in western Tanzania: causes and solutions
 CARO, TIM
- 4:30 The Terai Arc landscape: a paradigm for megafauna conservation in human-dominated landscapes
 WIKRAMANAYAKE, ERIC, Sarala Khaling, Anil Manandhar, Mohan Wagley, Santosh Nepal, and Narayan Poudel
- 4:45 The effects of off-highway vehicles on American martens in the Sierra Nevada mountains of California
 ZIELINSKI, WILLIAM and Keith Slauson
- 5:00 Ranch metrics improve scaling the real socioeconomic impact of gray wolf (*Canis lupus*) depredation on domestic livestock
 HANEY, J. CHRISTOPHER and Gina Schrader
- 5:15 Population status and recovery trends for endangered species listed prior to 1980
 NOWICKI, BRIAN, Kieran Suckling, Stephanie Jentsch, Rhiwena Slack, and Esa Crumb
- 5:30 Landscape conservation planning and source-sink dynamics in northern grizzly bear populations
 HEINEMEYER, KIMBERLY and Daniel Doak
- 5:45 The influence of water, vegetation, and human activity on elephant
 LOARIE, SCOTT, Rudi van Aarde, and Stuart Pimm

Environmental Economics
 moderator: Eric Sanderson

Ballroom A3

- 4:00 Valuing ecosystem services for use in cost-benefit analyses: sustainable development in the heart of Borneo
 NAIDOO, ROBIN
- 4:15 A simple model of conservation investment: the Ruaha model
 SANDERSON, ERIC and Pete Coppolillo
- 4:30 Assessing the non-use economic value of six endangered aquatic species in Canada
 RUDD, MURRAY
- 4:45 Economic and ecological benefits of revegetating following fire in the sagebrush steppe ecosystem
 NIELL, REBECCA, Jeffrey Englin, and Darek Nalle
- 5:00 Conflicts and wildlife harvest impacts within and adjacent to the extension of Sapo National Park, Liberia
 HOYT, REGINALD, Richard Nisbett, and Jill Frayne
- 5:15 Measuring local community economic values of coral reefs to inform conservation policy and management
 HARGREAVES-ALLEN, VENETIA, Eleanor Jane Milner-Gulland, and Susana Mourato
- 5:30 Development of participatory conflict reconciliation processes: the case of biodiversity conservation and aquaculture in the Sado Estuary (Portugal)
 ANTUNES, PAULA, Rui Santos, Jorge Gomes, and Luisa Madruga
- 5:45 Conflict and livelihoods in the protected areas: a comparative case study of two VDCs of Royal Bardia National Park, Nepal
 THAPA, SHOVA and Sigrid Stagl

Spatial Ecology
 moderator: Robert Baldwin

Ballroom A6

- 4:00 Niche-based distribution models to the rescue of rare species
 LE LAY, GWENAELLE, Erika Franc, Robin Engler, and Antoine Guisan
- 4:15 Incorporating multiple pathways into connectivity analysis and corridor design using circuit theory
 MCRAE, BRAD, Paul Beier, Brett Dickson, and Rick Hopkins
- 4:30 Conservation strategies for cougars in the land of Oz: from models to management
 HOPKINS, RICK, Brett Dickson, and Brad McRae
- 4:45 An assessment of protected area status and distribution in relation to the human footprint in the transboundary northern Appalachian ecoregion
 Woolmer, Gillian, STEPHEN TROMBULAK, Patrick Doran, Justina Ray, Mark Anderson, Alexis Morgan, and Eric Sanderson
- 5:00 Population and road components of alternative future human footprints: forecasting threat at the ecoregional scale
 BALDWIN, ROBERT and Stephen Trombulak
- 5:15 Stream network topology may affect fish assemblage responses to stress
 HITT, NATHANIEL and Paul Angermeier
- 5:30 Identifying critical ecological processes for biodiversity persistence: a bottom-up approach
 BOYD, CHARLOTTE, David Hole, and Thomas Brooks
- 5:45 Intact natural habitat protects vineyards from lethal Pierce's disease in Napa, California
 GREENLEAF, SARAH and Kendra Baumgartner

Conservation Without Borders • Sunday, 25 June

Speed Presentations

Almaden Ballroom (Hilton)

moderator: Mac Hunter

How to design a wildlife corridor

BEIER, PAUL, Dan Majka, Kristeen Penrod, Claudia Luke, Wayne Spencer, Shawn Newell, and Clint Cabanero

Challenges of conserving a wide-ranging carnivore on community land: African wild dogs in northern Kenya

WOODROFFE, ROSIE

A step forward in mitigation of fragmentation by highways: predictability of terrestrial vertebrate use of crossing structures

MATA, CRISTINA, Israel Hervas, Jesus Herranz, Juan Malo, and Francisco Suarez

Continental conservation deficits: an ecosystem Gap analysis

DIETZ, ROBERT and Brian Czech

High-elevation populations act as genetic refugia as climate warms

EPPS, CLINTON, Per Palsboll, John Wehausen, George Roderick, and Dale McCullough

Feral livestock as a potential threat to treelike cacti-dominated arid landscapes: a case from the Argentinian Monte Arido

Acebes, Pablo, Juan Traba, Ramiro Ovejero, Carlos Borghi, Claudia Campos, Begona Peco, and JUAN MALO

Reducing seabird bycatch in longline fisheries using a natural olfactory deterrent

NORDEN, WENDY and Johanna Pierre

Changes in abundance and distribution for northern anchovy in the Pacific Northwest

EMMETT, ROBERT and Marisa Litz

Quantifying seabird-fisheries overlap and implications for population-level bycatch risk

HAMEL, NATHALIE and Julia Parrish

Potential effects of sea-level rise on terrestrial habitat and biota of the northwestern Hawaiian islands

BAKER, JASON, Charles Littnan, and David Johnston

Long-term demographic trends on high-diverse benthic communities in the northwestern Mediterranean Sea

NURIA, TEIXIDO and Joaquim Garrabou

Distribution patterns of flora and fauna in the Mediterranean central zone and in the temperate coastal range of southern Chile

SMITH-RAMÍREZ, CECILIA and Patricio Pliscoff

The effect of spatial scale on cetacean-habitat models

REDFERN, JESSICA, Megan Ferguson, Jay Barlow, Lisa Ballance, and Tim Gerrodette

Interactive impacts of keystone rodent species: implications for conservation and biodiversity

DAVIDSON, ANA and David Lightfoot

Maybe size does matter: coastal grassland response to management-scale fall burning, shading, and supplemental seeding

PICKERING, DEBBIE, Nathan Rudd, and Daniel Salzer

Sustainable Agriculture

Ballroom A8

moderator: Taylor Ricketts

4:00 Evidence-based risk analysis: learning from our experiences with genetically-modified crops

MARVIER, MICHELLE, Chanel McCreedy, and Peter Kareiva

4:15 Landscape scale conservation and science based land management across borders in central Idaho

O'SULLIVAN, MARY TESS, Michael Stevens, and Alan Sands

4:30 Assessing the sustainability of agroforestry system: a study from northeastern hill forests of Bangladesh

NATH, TAPAN KUMAR and Makoto Inoue

4:45 Modeling grazing capability and capacity for biodiversity conservation and livestock production across large, public-private landscapes

KARL, JASON and Alan Sands

5:00 Landscape effects on crop pollination services: are there general patterns?

RICKETTS, TAYLOR, Ingolf Steffan-Dewenter, Saul Cunningham, James Regetz, Barbara Gemmill, Sarah Greenleaf, Alexandra Klein, Margaret Mayfield, Lora Morandin, Alfred Ochieng, Rachel Winfree, and Claire Kremen

5:15 Environmental effects of the coffee crisis: a case study on land use in Agua Buena, Costa Rica

RICKERT, EVE and Martha Rosemeyer

5:30 The farmer and the oil sheik: the shift from food to bioenergy production in Germany's countryside and its implications for landscape-level conservation

PLIENINGER, TOBIAS

5:45

Keynote Address—Secretary Bruce Babbitt 8:00–9:00 P.M., San Jose Civic Auditorium

The restoration of the Florida Everglades. The return of the wolf to Yellowstone and the condor to the wild. The Grand Staircase–Escalante National Monument. Dismantling obsolete dams. Each was a landmark of environmental progress in the 1990s and each was realized under the guidance of then Secretary of the Interior Bruce Babbitt. Now he draws on these experiences to support his message that such episodic conservation victories, however important, will not be sufficient either to protect our disappearing open spaces or to contain the blight of urban sprawl.

In his presentation and in his new book *Cities in the Wilderness*, published by Island Press, Babbitt makes the case for a new national land use policy. Throughout the history of the United States, from the late 1770s to the present, federal policies have encouraged and subsidized destructive resource exploitation and out-of-control development that threaten the landscape.

From Babbitt's incisive analysis comes a vision and a program for how it should be done: a federal leadership role in land use planning, a new way of thinking about open space that retains local control while acknowledging national interests. With Bruce Babbitt's inspirational guidance, this presentation will celebrate key accomplishments in the environmental field while planning for greater ones.



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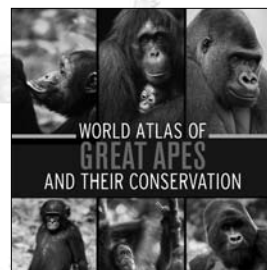
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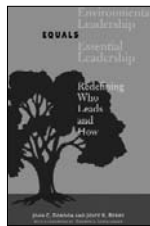
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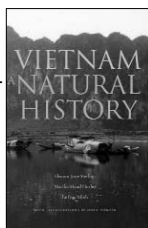
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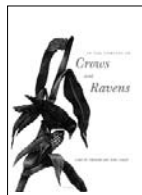


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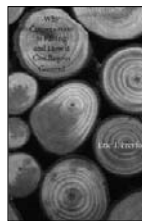
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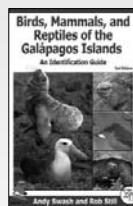
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Monday 26 June

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Africa Section Board Meeting Room A1		Asia Section Board Meeting Room A2		Austral and Neotropical America Board Meeting Room A3		Australia Section Board Meeting Room A6		Europe Section Board Meeting Room A7		North America Section Board Meeting Room A8		Marine Section Board Meeting Room E		Social Science Board Meeting Room K		Freshwater Board Meeting Room M												
Plenary Session: Bridging the Worlds of Science and Journalism San Jose Civic Auditorium																												
Break																												
Symposium: Donors and Conservation Science Meeting Room B		Symposium: Biodiversity Conservation in Africa Meeting Room C		Conservation Biogeography Meeting Room A1		Conservation Genetics Meeting Room A2		Environmental Politics and Policy Meeting Room A3		Marine Conservation Practice Meeting Room A6		Conservation Planning Research by Smith Fellows Meeting Room A7		Wetland Ecology Meeting Room A8														
Workshop: Publishing in Conservation Biology Meeting Room B		Social Science Working Group Meeting Meeting Room A4-5		Student Lunch with SCB Board Almaden Ballroom (Hilton)		Workshop: Art and Science Meeting Room C		Workshop: Satellite Telemetry Meeting Room K																				
Symposium: Connectivity and Reserve Design Meeting Room B		Symposium: Complexity in Ocean Ecosystems Meeting Room C		Adaptive Management Meeting Room A1		Conservation of Wide Ranging Taxa Meeting Room A2		Environmental Sociology Meeting Room A3		Predictive Conservation Ecology Meeting Room A6		Student Award Finalists Meeting Room A4-5		Workshop: Capacity Building Meeting Room A8														
Break																												
Symposium: Connectivity and Reserve Design Meeting Room B		Symposium: Complexity in Ocean Ecosystems Meeting Room C		Conservation on Private Land Meeting Room A1		Environmental Anthropology Meeting Room A2		Land Use Planning Meeting Room A3		Marine Conservation Science Meeting Room A6		Student Award Finalists Meeting Room A4-5		Spatial Ecology Meeting Room A7														
Poster Session and Reception Exhibit Hall 1																												
Discussion: Conservation Leadership San Carlos I & II (Hilton)		Integration of Art and Science Meeting Room C		SCB Networking Event Location TBA																								

Monday 26 June

8:00	Joint Plenary Session: Bridging the Worlds of Science and Journalism			8:00
8:30				8:30
9:00	Break			9:00
9:30				9:30
10:00	GIS Techniques For Conservation Area Design Salon I	Conservation GIS for Charismatic Megafauna Salon II	Workshop: Introduction to Watershed Based Raster Analysis Using Spatial Analyst Salon III	Conservation GIS in Ornithology Salon IV
10:30				10:30
11:00				11:00
11:30				11:30
12:00	Lunch and Networking			12:00
12:30				12:30
13:00				13:00
13:30				13:30
14:00	GIS for National Parks and Protected Areas Salon I	GIS for Field Conservation and Ecology Salon II	Workshop: Introduction to ArcIMS Salon III	Geospatial Tools for Freshwater Conservation Salon IV
14:30				14:30
15:00				15:00
15:30	Break			15:30
16:00				16:00
16:30	GIS for Local and Regional Conservation Planning Salon I	GIS for the Herpetological Sciences Salon II	Workshop: Creating Custom Conservation Tools with the ESRI Geoprocessing Framework Salon III	Geospatial Tools for Freshwater Conservation Salon IV
17:00				17:00
17:30				17:30



Who will win?

SCB Student Presentation Competition

Monday, 26 June, 1:30- 6:00pm, Ballroom A4-5

Moderators: Past SCB Presidents, Mac Hunter and Deborah Jensen

Special Guest Speakers: Dee Boersma and Javier Simonetti

Meet the future of conservation—12 finalists will compete for prestigious SCB Student Awards.

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Wednesday, 28 June, 8:00am, San Jose Civic Auditorium

Join us before the morning plenary to congratulate the SCB student award winners.
Thanks to Blackwell Publishing for sponsoring this year's event and funding awards.



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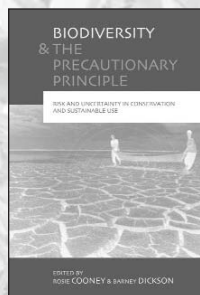
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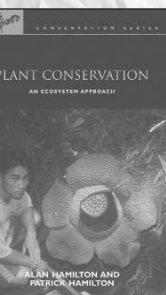
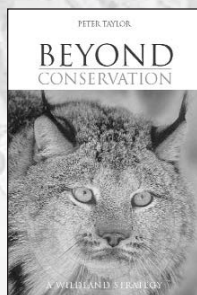
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8:00–9:30, San Jose Civic Auditorium

Moderator: Nancy Baron

Nancy Baron is the Ocean Science Outreach Director for COMPASS (Communication Partnership for Science and the Sea). She is also the lead communications trainer for the Aldo Leopold Leadership Program. In these capacities, she works with environmental scientists helping them translate their work effectively to journalists, the public, and policy makers. Nancy has an interdisciplinary Masters degree in Global Marine Studies from the University of British Columbia and a B.Sc. in Zoology and has won numerous writing awards including a National Magazine award, two Science in Society Awards from the Canadian Science Writers Association, and a Western Magazine Award.

PANELISTS

Nick Atkinson

A scientist turned science writer, Nick has a background in evolutionary biology, gaining his Ph.D. at the University of Edinburgh. Using his experience across a range of scientific disciplines, both theoretical and empirical, he tries to distill a simple, accurate story. His writing reflects a passion to communicate scientific progress to the widest possible audience. He has written news and feature stories for *Science*, *The Scientist*, *Natural History Magazine*, and *BBC Wildlife*, among others (visit www.entangled.org for more). Nick lives in Northumberland, United Kingdom, with his wife and young children.

Elizabeth Grossman

Elizabeth Grossman is a freelance writer based in Portland, Oregon. She is author of *High Tech Trash: Digital Devices, Hidden Toxics and Human Health* (Island Press, May 2006), *Watershed: The Undamming of America*, and *Adventuring Along the Lewis and Clark Trail* and co-editor of *Shadow Cat: Encountering the American Mountain Lion*. Her work has appeared in a variety of publications including *The Washington Post*, *The Nation*, *Salon*, *Orion*, and *Grist*. She has received support for her work from the John D. and Catherine T. MacArthur Foundation, The Nation Institute, and the Fund for Investigative Journalism. A native of New York City, she has a B.A. in literature from Yale University, and when not at her desk, she's out exploring—hiking, camping, paddling, sketching, and watching birds.

Stephen Leahy

Stephen Leahy has been a freelance environmental journalist for the past 12 years. He has written for dozens of publications including *New Scientist*, *The London Sunday Times*, *Maclean's Magazine*, *The Toronto Star*, *Wired News*, *Audubon*, *BBC Wildlife*, and *Canadian Geographic*. He is also the science and environment correspondent for Inter Press Service News Agency (IPS), a wire service based in Rome that covers global issues, and its Latin American affiliate, *Tierramerica*, based in Mexico City. Stephen writes for a variety of audiences including 20-something techno geeks at *Wired*, readers of South American newspapers, the scientifically-literate who love *New Scientist* magazine, and conservationists in North America. He is based in Brooklin (not Brooklyn), outside of Toronto, Canada.

John Nielsen

John Nielsen covers environmental issues for National Public Radio (NPR). His reports air regularly on NPR's *All Things Considered*, *Morning Edition*, and *Weekend Edition*. He also prepares documentaries for the NPR / National Geographic *Radio Expeditions* series. Before joining NPR in 1990, Nielsen was a Knight Fellow in the Science Journalism program at MIT. Prior to that, he worked for the *Los Angeles Times*, *The Orange County Register*, and the *Salisbury* (North Carolina) *Evening Post*. Nielsen recently published "Condor/To the Brink and Back/The Life and times of One Giant Bird" (Harper Collins). The book explores the long-running fight to save the California condor, a giant rare vulture that used to be common near his childhood home, the tiny town of Piru, California. In 2005, Nielsen was awarded an AAAS Science Journalism for Excellence in Radio Reporting. He is a graduate of Stanford University, where he studied Shakespeare. Nielsen has three children and lives in Washington, D.C.

Symposium—Moving Beyond the Dotted Line:
Donor Engagement with Conservation Science
organized by Lynn Lohr (Consultative Group on Biological Diversity)

Meeting Room B

This symposium will examine how deeper engagement between the donor community and conservation science can contribute to successful outcomes on the ground. Specifically, the symposium will overview the diversity of existing donor / research relationships; report on a "gap analysis" of the funding priorities by the various biodiversity donors; provide examples of how foundations and other donors use conservation science to formulate their funding strategies and evaluate progress; and explore the roles that funding new science, scientific synthesis, and the development of scientific leadership play in achieving broader conservation goals. To foster exchange among donors, scientists and practitioners, the symposium will combine four integrative presentations with an extended roundtable discussion. The goal will be to transcend the boundary between the conservation science and conservation donor communities, exposing opportunities for increased partnership—including the enhanced use of conservation science to build the effectiveness of donor planning, evaluation, and conservation funding; and the increased engagement of scientists in conservation action.

- 10:05 A taxonomy of donors to conservation science, policy and implementation
Vanderryn, Jack and MARY ROWEN
- 10:15 Mapping investment in conservation: results from a survey of donor priorities
HULSE, DAVID, Nick Salafsky, and Daniel Miller
- 10:30 How can and does conservation science inform foundation program strategies?
ZAVALETA, ERIKA, Daniel Miller, and Gary Tabor

- 10:45 From research to action: foundation strategies for funding conservation science that is relevant to conservation action
Gold, Barry and MICHAEL WEBSTER
- 11:00 Discussion

Symposium—The Quadrupled Face of Biodiversity Conservation in Africa
organized by Delali Dovie (University of the Witwatersrand, South Africa) and
Norbert Cordeiro (University of Illinois at Chicago)

Meeting Room C

The previously dominant biodiversity-protection paradigm in many countries in Africa has led to a scant attention presently paid to the coupled human-environment system of which biodiversity is part. This interface provides the required platform where socio-political issues, such as human access to biological resources and decisions, are paramount for achieving sustainability. A thin line exists between biodiversity and human survival in Africa and hence the need to pursue biodiversity conservation to encompass national and macro-level accounting of anthropogenic and social concerns in scientific and development planning. Several other regions are also faced by a similar divide and the need to divulge the intricacies of these issues. If the NEPAD document in Africa, for instance, has opened the doors for conservation science then we will have no reason not to talk about what has generally been termed “non-scientific” issues pertaining to biodiversity conservation. This symposium will seek to address the four major tasks of biodiversity conservation in Africa (i.e., science, policy, conservation planning, and development). The symposium will provide relevant lessons about the sharing of information and partnership development across multiple disciplines and stakeholders, as well as making conservation biology useful to the world of politics.

- 10:00 Engendering the NEPAD environment initiative: linking policies to African womens’ local realities
BADIANKY, SOLANGE
- 10:15 The human-political economy, crossover methodological augmentation, and conservation
DOVIE, DELALI
- 10:30 Mapping forest cover conversion and fragmentation in Malawi, 1973–2000
MLOTHA, MCARD JOSEPH
- 10:45 Integrating indigenous knowledge in domestication trials of a native Tanzanian tree
MESHACK, CHARLES
- 11:00 Policies, politics and natural resources conservation in Uganda
MWAVU, EDWARD
- 11:15 Implementing optimal conservation actions for multiple stakeholders: a case example from the Taita Hills, Kenya
GITHIRU, MWANGI
- 11:30 Recent advances in regional biodiversity policy, mainstreaming priorities, planning, and monitoring
SOUTH AFRICAN NATIONAL BOTANICAL INSTITUTE

Conservation Biogeography
moderator: Jon Paul Rodriguez

Ballroom A1

- 10:00 Advancing the knowledge base for global-scale conservation biogeography – expert-based habitat models of the distribution of terrestrial vertebrates
JETZ, WALTER
- 10:15 Assessment of ecosystem extinction risk at multiple spatial scales
RODRIGUEZ, JON PAUL, Pablo Lacabana, Carlos Portillo, Fabian Carrasquel, and Alix Amaya
- 10:30 Molecular phylogeography suggests that vertebrate and plant-based conservation plans may not protect Hawaii’s unusual insect fauna
RUBINOFF, DANIEL
- 10:45 The distribution and conservation status of restricted range vascular plant families
MASSAD, TARA, George Schatz, and Eric Dinerstein
- 11:00 The distribution and conservation value of endemic genera and families
DINERSTEIN, ERIC, Wes Wettengel, John Morrison, John Lamoreux, Taylor Ricketts, David Olson, and Meghan McKnight
- 11:15 A critical assessment of endemic bird areas in the Americas
JENKINS, CLINTON and Stuart Pimm
- 11:30 Assembly of the Yellowstone species pool and implications for regional conservation planning
BRUZGUL, JUDESEN and Elizabeth Hadly
- 11:45 Predicting species’ distributions from small numbers of occurrence records: a test case using cryptic geckos in Madagascar
PEARSON, RICHARD, Christopher Raxworthy, Miguel Nakamura, and A. Townsend Peterson

Conservation Genetics
moderator: Oliver Pergams

Ballroom A2

- 10:00 Purging of deleterious recessive alleles during historical inbreeding can limit the threat that inbreeding depression poses to population viability
BOUZAT, JUAN and William Swindell
- 10:15 The effects of historic translocations and habitat fragmentation on the genetic structure of a protected fish species, the White Sands pupfish
HEILVEIL, JEFFREY and Craig Stockwell

Conservation Without Borders • Monday, 26 June

- 10:30 Genetic structure in the desert tortoise: conservation implications
Hagerty, Bridgette and C. RICHARD TRACY
- 10:45 Genetic structure in the endangered southern populations of the mountain yellow-legged frog, *Rana muscosa*
SCHOVILLE, SEAN, Tate Tunstall, Vance Vredenburg, and Robert Fisher
- 11:00 Genetics and the Endangered Species Act: a review of listing decisions
FALLON, SYLVIA
- 11:15 Swamping out rare genes: habitat fragmentation increases hybridization in a woodland eucalypt
FIELD, DAVID, Andrew Young, David Ayre, and Rob Whelan
- 11:30 Conservation and management of San Miguel Island deer mice
PERGAMS, OLIVER
- 11:45 Mitochondrial DNA variation supports distinct population segment designation in US gray wolves (*Canis lupus*)
STRAUGHAN, DYAN and Steven Fain

Environmental Politics and Policy

Ballroom A3

moderator: Brad Valentine

- 10:00 Playing for keeps: prioritizing conservation for maximum biodiversity return-on-investment
HOEKSTRA, JONATHAN, William Murdoch, Stephen Polasky, Hugh Possingham, and Kerrie Wilson
- 10:15 A comparative assessment of biodiversity conservation on four federal land systems in the United States
CZECH, BRIAN
- 10:30 Diplomatic immunity and trafficking of endangered species: what's the connection?
JACKSON, WENDY
- 10:45 Reaching beyond the boundaries: a discourse analysis of perceptions in biodiversity conservation
MALAN, LEON-C
- 11:00 Return of the scientists: research and conservation on the Osa Peninsula after Corcovado National Park's creation, 1975-1990
CHRISTEN, CATHERINE
- 11:15 State fragility and biodiversity: strategic concerns and emerging responses
ROBINSON, DOREEN and Diane Russell
- 11:30 Biosafety issues and policies in China
MCBEATH, JENIFER and Jerry McBeath
- 11:45 Prioritizing actions within offset / mitigation policies through credit assignment under uncertainty
LANGFORD, BILL

Marine Conservation Practice

Ballroom A6

moderator: Leslie Cornick

- 10:00 Shifting the baseline back: documenting community perceptions of marine resources along with the biological returns of MPAs
TUI, THOMAS, Loraini Sivo, Josh Drew, Jen Shaffer, and Linda Farley
- 10:15 Clustered networks of marine and watershed reserves find the balance for people and ecosystems in Kubulau, Vanua Levu, Fiji
OLSON, DAVID
- 10:30 Spearfishing in the Pacific Islands: current status and management issues with case study in Fiji exploring the role of MPAs
MOY, WAYNE, Robert Gillett, Loraini Sivo, and Thomas Tui
- 10:45
- 11:00 CITES related shifts in the live seahorse trade: Los Angeles as a case study
MAGERA, ANNA, Sian Morgan, Heather Koldewey, and Amanda Vincent
- 11:15 Assessing the effects of fishery entanglement in viability analyses for sea lions in the Gulf of California
UNDERWOOD, JARED, Claudia Hernandez Camacho, and Leah Gerber
- 11:30 Assessment of interactions between aquatic land use and endangered species for aquatic lands throughout Washington state
BLOCH, PHILIP, Carol Cloen, Cody Fleece, and Greg Reub
- 11:45 A decision support system for regional marine protected area planning in California
GLEASON, MARY, Will McClintock, Paulo Serpa, Chris Ball, Bob Sherwood, and Brad Pfefferle

Conservation Planning and Reserve Selection:

Ballroom A7

Research by Smith Fellows

moderator: Maile Neel

- 10:00 Introduction
- 10:15 A national review of priority setting and decision making by land protection programs
PYKE, CHRIS

- 10:30 Can we conserve biodiversity without really trying? Capturing non-target biodiversity using community-based representative reserve designs
NEEL, MAILE, Bradley Compton, and Kevin McGarigal
- 10:45 Prairies under siege: strengthening the science behind grassland protection efforts in the northern great plains
STEPHENS, SCOTT, Johann Walker, Darin Blunck, and Dave Naugle
- 11:00 Global threat analysis and impacts on marine ecosystems
HALPERN, BENJAMIN, Kimberly Selkoe, Mark Spalding, Shaun Walbridge, Caterina DAgrosa, Fiorenza Micheli, Carrie Kappel, and Hunter Lenihan
- 11:15 Establishment and effectiveness of marine protected areas: links between governance, biological, and socioeconomic factors
FOX, HELEN, Alfonso Lombana, Michael Mascia, and Louisa Wood
- 11:30 Using graph theory to estimate landscape-level connectivity for wide-ranging species
THEOBALD, DAVID, John Norman, and Melissa Sherburne
- 11:45 Assessing conservation-planning approaches in a changing climate
LAWLER, JOSHUA, Sarah Shafer, and Dennis White

Wetland Ecology
moderator: Jon Sjoberg

Ballroom A8

- 10:00 Fire and grazing effects in California vernal pool grasslands
MARTY, JAYMEE
- 10:15 Genetic structure and landscape fragmentation: planning the recovery of a critically endangered salamander
SAVAGE, WESLEY
- 10:30 Factors affecting anuran community structure along an urban-rural gradient
PILLSBURY, FINN and James Miller
- 10:45 Effects of UV-B on tadpole diets: choice tests and growth rates
SCHEESSELE, ERIN, Betsy Bancroft, and Andrew Blaustein
- 11:00 A multifactorial characterization of pond turtle habitat
HARMS, HILLARY, Daniel Pavuk, and Karen Root
- 11:15 Fidelity and dispersal in the pond breeding amphibian *Ambystoma opacum*: implications for spatial population dynamics and conservation
GAMBLE, LLOYD, Kevin McGarigal, Bradley Compton, and Sai Ravela
- 11:30 Desert wildlife restoration: monitoring wildlife populations in the Chanan Remington Memorial Wetland
Busby, Darin and MELISSA BUSBY
- 11:45 Effects of ultraviolet-B radiation on growth and survival of aquatic and marine organisms: a meta-analysis
BANCROFT, BETSY, Nick Baker, and Andrew Blaustein

Workshop—Easing the Publication Process: How to Publish in *Conservation Biology* 12:00–1:30, Meeting Room B

Most conservation scientists would like to publish in *Conservation Biology*, but the competition for limited space is intense and growing. Authors' chances of successful publication are increased if they better understand what types of papers are of the highest priority, types of papers not considered, how to orient papers toward a diverse international audience, how to avoid common mistakes in paper submittal or revision, how the review system works, and what the steps toward publication are. In this session the editorial staff of *Conservation Biology* will discuss all these topics and others so that authors can better understand the system and improve their chances of successful publication. Participants will learn how to best present papers and will have the opportunity for questions and comments about the journal.

Workshop—Merging Art and Science for Applied Conservation Tools: An Overview of Interdisciplinary Programs and Professional Applications 12:00–1:30, Meeting Room C
organized by Colleen Corrigan (The Nature Conservancy) and Jim Tolisano

An enormous number of professional artists are actively engaged in work that can enhance environmental education, public awareness, and participation in biodiversity conservation activities. The main goal of our workshop is to introduce participants to a spectrum of conservation applications that combine both art and science, using case studies and demonstrations by artists and environmental professionals who have crossed traditional academic boundaries to creatively enhance their work. We anticipate that the audience will have an opportunity to interact with the moderators and invited speakers and will leave the workshop with a greater understanding of how art and science can be merged in their own professional engagements. The participating artists will use formal and informal presentations to allow workshop participants to observe and learn from practitioners applying visual, sound, movement / theater, and educational methods in their work. The workshop will provide participants with hands-on opportunities to experience and assess specific artistic tools and techniques available to support conservation science practices and methods. The workshop will also establish a communication network among academics, professionals, and practitioners in both the science and arts in order to facilitate ongoing dialogue about projects and new developments integrating art and science to promote conservation. We expect that a committee or node will be created to maintain the communication network through a designed Web or other site.

Workshop—Satellite Telemetry of Marine Megavertebrates:

12:00–1:30, Meeting Room K

the Coming of Age of an Experimental Science

organized by K. David Hyrenbach (University of Washington), Kristen Hart (Florida Integrated Science Center for Coastal and Watershed Studies), and Michael Coyne (Duke University)

The study and conservation of marine megavertebrates is challenging because these species often range across international boundaries, make extensive use of vast and dynamic oceanic habitats, and inhabit the high seas beyond national jurisdictions. The advent of satellite tracking technology in the 1980s opened a window into the poorly understood habits and habitats of highly-migratory marine turtles, mammals, and birds. The growing popularity of satellite tracking warrants a thorough evaluation of past progress, current limitations, and future trends. This workshop will (1) review state-of-the-art data filtering and analysis approaches, (2) enhance cross-fertilization across taxonomic groups, and (3) stimulate comparative and retrospective analyses of telemetry data using standardized methods. The intended audience includes satellite tracking researchers, graduate students, tag manufacturers, and journal editors. This 2-hour workshop will involve three 15-minute presentations, followed by an open group discussion. First, we will review published satellite tracking studies of marine megavertebrates. The second presentation (by invited speakers) will discuss recent data filtering and track interpolation methods. Finally, we will present novel methods for satellite tracking and remote sensing data integration, available online through Seaturtle.org. Subsequently, the entire group will discuss steps towards the standardization of analytical methods, and the development of “best practices” criteria.

Symposium—Connectivity and Reserve Design: Incorporating Landscape and Population Connectivity into Conservation Planning for Changing Landscapes and Seascapes (continued at 4:00)

Meeting Room B

organized by Carlos Carroll (Wilburforce Foundation), Reed Noss (University of Central Florida), and Gary Tabor (Wilburforce Foundation)

Conservation biologists have long recognized that natural areas that are linked into networks are more effective than isolated areas at preserving certain components of biodiversity, such as wide-ranging animals. Connectivity becomes more critical as landscapes are subjected to dynamic processes such as climate change and conversion to human land-uses. Most current conservation planning tools for reserve design select sites that capture elements of biodiversity, but cannot evaluate how such sites would function as a network, an aspect especially critical for area-limited terrestrial species such as wolves. Similarly, marine reserve design is increasingly grappling with issues of dispersal, social aggregations, and other aspects that make the conservation value of a particular site dependent on the larger seascape. Recent work by researchers represented in this symposium provides a variety of new approaches for designing connected reserve systems that have improved prospects for maintaining viable populations of fragmentation-sensitive species. Although it explores novel mathematical and theoretical approaches to connectivity, the symposium is highly relevant to real-world planning, and will also include presentations by scientists from academic, government, and NGO sectors on current applications of connectivity-based conservation planning.

- 1:30 The best laid plans of beasts and men: ecological connectivity in conservation planning requires connectivity amongst conservation plans
TABOR, GARY, Carlos Carroll, and Joel Clement
- 1:45 Planning for biodiversity processes in the context of anthropogenic landscape dynamics: history and recent developments
PRESSEY, BOB
- 2:00 Overview of new mathematical methods for incorporating connectivity into reserve design
WILLIAMS, JUSTIN
- 2:15 Mathematical methods for selecting contiguous reserve networks
Alagador, Diogo, J. ORESTES CERDEIRA, Kevin Gaston, and Leonor Pinto
- 2:30 Comparing reserve design approaches that account for connectivity
CABEZA, MAR and Atte Moilanen
- 2:45 Dissecting habitat connectivity
Schumaker, Nathan, Madhura Niphadkar, and CARLOS CARROLL
- 3:00 Multispecies issues in the design of marine reserve networks
GAINES, STEVE, Brian Gaylord, Brian Kinlan, and Sarah Lester
- 3:15 Incorporating connectivity into the design of marine reserves
HASTINGS, ALAN

Symposium—Management for Spatial and Temporal Complexity in Ocean Ecosystems in the 21st Century (continued at 4:00)

Meeting Room C

organized by Satie Airame (University of California, Santa Barbara), Larry Crowder (Duke University), Elliott Norse (Marine Conservation Biology Institute), Gail Osherenko (University of California, Santa Barbara) and Oran Young (University of California, Santa Barbara)

At many levels of government, policymakers and managers have developed and implemented numerous regulations to limit and reverse impacts of human activities on marine ecosystems. Although some regulations have been effective, many management objectives have not been realized, in part, because of mismatches between the scales of management and marine ecosystems. A potential solution to these problems is to develop a comprehensive system of ocean zoning at scales consistent with ecological processes. The symposium will explore the similarities and differences, successes and failures of, and innovative opportunities for ocean management through numerous case studies. We will review and evaluate common assumptions about property rights for submerged lands and the meaning of public trust for ocean resources. We will consider lessons learned from 30 years of spatial planning and management conducted by UNESCO's Man and the Biosphere Programme and the Great Barrier Reef Marine Park. We

will engage a panel of experts in discussion about current strategies for ocean management, focusing on case studies from the United States. We will conclude with a synthesis of the opportunities for more effective ocean management through increased communication and collaboration among agencies.

- 1:30 Comprehensive ocean zoning: a new paradigm for ocean management in the United States
NORSE, ELLIOTT
- 1:45 Evolving property rights, the public trust, and ocean zoning
OSHERENKO, GAIL and Oran Young
- 2:00 The Great Barrier Reef: a working example of ecosystem-based management and ocean zoning
DAY, JON
- 2:15 Discussion
- 2:30 The international perspective: lessons from 30 years of marine spatial planning
DOUVERE, FANNY and Charles Ehler
- 2:45 Mapping foraging areas of seabirds at risk from longline fishing: a tool for assessing international conservation responsibilities
HYRENBACH, K. DAVID, John Croxall, Deon Nel, Cleo Small, and Frances Taylor
- 3:00 Assessing shallow water hawaiian reef fish stocks through the use of a spatially heterogeneous management regime
NOWLIS, JOSHUA, Alan Friedlander, Edward DeMartini, and Eric Brown
- 3:45 Discussion

Adaptive Management

Ballroom A1

moderator: Sarah Christiansen

- 1:30 Using abundance and behavior as tools for assessing a management strategy for an endangered butterfly
PICKENS, BRADLEY and Karen Root
- 1:45 Mission blue and callippe silverspot butterfly distribution and habitat changes on San Bruno Mountain after 23 years of monitoring
Kobernus, Patrick and AUTUMN MEISEL
- 2:00 Evaluation and conservation of heritable adaptive trait variation in Maine's endangered Atlantic salmon, *Salmo salar*
WILKE, NATHAN, Michael Kinnison, and Timothy King
- 2:15 Land use changes and oil exploitation effects on aquatic biodiversity nearby a protected area in tropical lowlands
CARRERA REYES, CARLOS and Rubén Carranco
- 2:30 Do small mammal pest species impacts increase on farms when adjoining lands are converted to habitat?
GOLET, GREGORY and John Hunt
- 2:45 The science of conservation project management
CHRISTIANSEN, SARAH, Miguel Jorge, Mariana Panuncio, Kate Newman, and Lauren Spurrier
- 3:00 Assessing population dynamics of secretive landscape species: long-term photographic sampling of tigers in India
KARANTH, ULLAS, James Nichols, Samba Kumar, and James Hines
- 3:15 Mitigation strategies for bats in bridges
JOHNSTON, DAVE

Conservation of Wide Ranging Taxa

Ballroom A2

moderator: Allison Jones

- 1:30 Strategic planning: setting conservation priorities in Pobitora Wildlife Sanctuary, India—land of highest density of one horned rhino in the world
HAZARIKA, ARUP KUMAR, Amalesh Dutta, and Prakash Chetry
- 1:45 Least cost path corridor analysis for evaluation of lynx habitat connectivity in the middle Rockies
JONES, ALLISON and Wendy Bates
- 2:00 Geographic variation in foraging strategies of western Pacific leatherbacks—implications for long term conservation
BENSON, SCOTT, Peter Dutton, Creusa Hitipeuw, and Vagi Rei
- 2:15 Space utilization patterns of bobcats (*Lynx rufus*) in the Santa Ana mountains in southern California
BOYDSTON, ERIN, Lisa Lyren, Robert Fisher, Greta Turschak, Jeff Tracey, Trish Smith, and Kevin Crooks
- 2:30 Selecting targets for landscape-scale conservation priority setting: do conservation NGOs disagree and does it matter?
BOTTRILL, MADELEINE, Jeff Baumgartner, Charlotte Boyd, Karl Didier, Colby Loucks, Judy Oglethorpe, David Wilke, and David Williams
- 2:45 Use of distinct foraging habitats by threatened Pink-footed Shearwaters: implications for interactions with fisheries
HODUM, PETER, K. David Hyrenbach, and Michelle Wainstein
- 3:00 Post breeding movements and fisheries overlap of Black-footed Albatross (2004–2005)
NEVINS, HANNAROSE, K. David Hyrenbach, Michelle Hester, Cheryl Baduini, Carol Keiper, and Josh Adams
- 3:15 Incorporating catastrophic risk assessments into recovery planning for Pacific salmonids
GOOD, THOMAS, Jeremy Davies, and Mary Ruckelshuas

Environmental Sociology

Ballroom A3

moderator: Paul Ferraro

- 1:30 Ecological and sociological diversity of private protected areas in the little karoo, South Africa
PASQUINI, LORENA
- 1:45 A collective understanding of threats to forest resources of the midwest driftless area
KNOOT, TRICIA and Lisa Schulte
- 2:00 Are wildlife values changing in the United States?
MANFREDO, MICHAEL, Tara Teel, and Ashley Dayer
- 2:15 Wildlife value orientations in the United States
TEEL, TARA and Michael Manfredo
- 2:30 The importance of conservation attitude and past conflict on illegal forest resource harvesting in the protected areas of Sulawesi (Indonesia)
LEE, TIEN MING and Navjot Sodhi
- 2:45 Brownfields, green cities, and the future color of conservation
GAVIN, MICHAEL
- 3:00 Invasive weed management and the formation of new alliances and new divisions within the environmental movement
NORGAARD, KARI and Chris Fryefield
- 3:15 Is love of nature in the United States becoming love of electronic media?
Pergams, Oliver and PATRICIA ZARADIC

Predictive Conservation Ecology

Ballroom A6

moderator: William Sutherland

- 1:30 Species' responses to fragmentation and habitat loss: a global cross-taxonomic meta-analysis
PRUGH, LAURA and Karen Hodges
- 1:45 Species interactions bias complex but not simple PVA models
SABO, JOHN and Leah Gerber
- 2:00 Habitat associations of Siskiyou Mountains salamanders at multiple-spatial resolutions in the Klamath–Siskiyou region at the Oregon-California border
SUZUKI, NOBUYA, Deanna Olson, and Edward Reilly
- 2:15 Improving conservation planning in Peru and Bolivia through the application of new tools and data
GROSSMAN, DENNIS, Pat Comer, Patrick Crist, Pilar Hernandez, Carmen Josse, Martin Timana, Jennifer Swenson, and Bruce Young
- 2:30 Barrier effects of US 331 to wildlife within the Nokuse Plantation–Eglin AFB conservation corridor
SMITH, DANIEL and Reed Noss
- 2:45 An integrated approach to predicting the impact of human disturbance
SUTHERLAND, WILLIAM, Durwyn Liley, Jamie Tratalos, Robert Sugden, Jennifer Gill, Andy Jones, Ian Bateman, and David Showler
- 3:00 Linking population viability analysis to environmental drivers of vital rates for the island fox (*Urocyon littoralis*)
BAKKER, VICTORIA, Daniel Doak, Gary Roemer, David Garcelon, Scott Morrison, and Rebecca Shaw
- 3:15 Are trees important for grazing wildlife? Large trees improving grass quality in African savanna
TREYDTE, ANNA, Ignas Heitkonig, and Fulco Ludwig

Student Awards: Presentations by Finalists (continued at 4:00)

Ballroom A4-5

moderator: Mac Hunter

- 1:30 Linking population viability analysis and habitat suitability for the conservation of Audubon's Crested Caracara (*Caracara cheriway*) in Florida
BARNES, JAMI and Karen Root
- 1:45 The "power" of science: confronting Type II error under the Endangered Species Act
MCGARVEY, DANIEL
- 2:00 Demographic consequences of buffer zone diameter for pond-breeding amphibian populations
HARPER, ELIZABETH, Tracy Rittenhouse, and Raymond Semlitsch
- 2:15 Effects of forest harvesting on juvenile amphibian dispersal
PATRICK, DAVID, Aram Calhoun, and Malcolm Hunter
- 2:30 Introduced rats indirectly transform island intertidal communities
KURLE, CAROLYN
- 2:45 Assessing the conservation benefits of sensitive land development
MILDER, JEFFREY, James Lassoie, and Barbara Bedford
- 3:00 Special presentation: What we learn from natural history of penguins
BOERSMA, DEE

Workshop—Developing a Framework for Building Individual and Institutional Capacity for Conservation

12:00–1:30, Ballroom A8

organized by Marianne Carter (BP Conservation Programme), Robyn Dalzen (BP Conservation Programme), and Will Banham (Wildlife Conservation Society)

In order to provide appropriate training and capacity building for effective individuals and institutions for conservation, it is necessary to (1) define the different types of individual conservationists and institutions, (2) for each of these, define the required competencies for effective individuals and attributes for effective institutions, and (3) identify the most appropriate ways in which those competencies and attributes can be realized. A comprehensive framework bringing together these elements will prove an important capacity building tool at an international level to identify gaps and plan interventions. By helping to equip potential conservation leaders with support, knowledge, skills, and attitudes, the BP Conservation Programme hopes to enable them to better conserve biodiversity. Such a tool will assist the program in identifying where to input resources and helping potential individual and institutional leaders in an appropriate way to obtain the optimum chance for success. This workshop aims to gather feedback on a preliminary competencies framework. Participants will explore how the framework will assist in identifying current gaps in individual leadership and institutional capacity internationally and in deciding how best to fill those gaps. Workshop outcomes will contribute to the development of a tool that will be used to identify needs for capacity building actions at a local level.

Symposium—Connectivity and Reserve Design: Incorporating Landscape and Population Connectivity into Conservation Planning for Changing Landscapes and Seascapes (continued)

Meeting Room B

- 4:00 Connecting the dots means more than lines: connectivity issues and approaches for regional freshwater species conservation
HIGGINS, JONATHAN
- 4:15 Connectivity design for island systems
SCHILL, STEVE
- 4:30 Optimizing connectivity under climate change: using network flow to design dispersal corridors for the Cape Proteaceae
PHILLIPS, STEVEN, Paul Williams, Guy Midgley, and Aaron Archer
- 4:45 Selecting corridors that insure persistence of wide-ranging species and ecological processes: examples from South Africa
ROUGET, MATHIEU, Richard Cowling, Amanda Lombard, and Andrew Knight
- 5:00 Building connected networks in a rapidly developing human landscape: an example from Florida
BREININGER, DAVID, Reed Noss, Pedro Quintana-Ascencio, Brean Duncan, and Eric Menges
- 5:15 Application of reserve design principles to real landscapes: lessons from the northwest forest plan
NOON, BARRY
- 5:30 Network designs and political realities in tiger landscapes of Asia
MIQUELLE, DALE and Carlos Carroll
- 5:45 Summary: where next in connectivity-based conservation planning?
NOSS, REED

Symposium—Management for Spatial and Temporal Complexity in Ocean Ecosystems in the 21st Century (continued)

Meeting Room C

- 4:00 Overview of ocean management in the United States: lessons from five case studies
AIRAME, SATIE
- 4:15 Management of spatial and temporal complexity in ocean ecosystems: panel discussion of case studies
Panelists: John Ogden, Andrew Rosenberg, Robbin Peach, Jim Wilson, and Julie Ekstrom. Moderated by Larry Crowder and Satie Airame.
- 5:30 Synthesis
CROWDER, LARRY
- 5:45 Discussion

Conservation on Private Land
moderator: Scott Loarie

Ballroom A1

- 4:00
- 4:15 Conservation easements in context: a quantitative analysis of their use by The Nature Conservancy
KIESECKER, JOSEPH, Tosha Comendant, Elizabeth Gray, Peter Kareiva, Lynn Lozier, Adena Rissman, and Rebecca Shaw
- 4:30 Private use and biodiversity protection on The Nature Conservancy's conservation easements
RISSMAN, ADENA, Tosha Comendant, Peter Kareiva, Joseph Kiesecker, Lynn Lozier, Rebecca Shaw, and Adina Merenlender
- 4:45 Conservation easements vs conservation acquisition: the illusory dichotomy
LOZIER, LYNN, Rebecca Shaw, and Adena Rissman
- 5:00 Conservation of fish and wildlife through the Farm Bill
GRAY, RANDALL

Conservation Without Borders • Monday, 26 June

- 5:15 Integrating conservation with transportation and land use scenario planning through decision support tool interoperability
CRIST, PATRICK, Lynn Scharf, Adrien Patane, and Doug Walker
- 5:30 Anadromous fish restoration with community partners—successes and challenges in the mid-Klamath River Basin
CURTIS, GARY, Jennifer Silveira, Dave Webb, and Rhonda Muse
- 5:45 Freshwater habitat conservation in the northern Sierra Nevada
GAITHER, JAMES, Paul Hardy, and Amy Upgren

Environmental Anthropology

Ballroom A2

moderator: Sara Jo Breslow

- 4:00 Archaeology of the Kerinci Seblat National Park, Indonesia
NEIDEL, JOHN
- 4:15 Impact of spiritual beliefs on the protection of the Amazon River dolphin in northern Peru
Lynch, Diane, James Perry, and Thomas Fiutak
- 4:30 “They eat rhinos”: contrasting and changing perceptions of bushmeat in two Maasai sections of south eastern Kenya and implications for conservation
ROQUE DE PINHO, JOANA
- 4:45 Negotiating for nature: lessons learned from the implementation of conservation incentives agreements in Cambodia
MILNE, SARAH and Keith Alger
- 5:00 Daylighting the cultural currents of science-based salmon habitat restoration
BRESLOW, SARA JO
- 5:15 Counting on trees: community needs and conservation at the Maputo Elephant Reserve, Mozambique
SHAFFER, JEN
- 5:30 Principles and practice of substitution for rare and endangered species in Amchi medicine
YESHI CHODEN, LAMA and Amchi Gyatso Bista
- 5:45 Pseudorichness, community composition, and ecological preferences of ostracoda (Crustacea) in Lake Abant (Bolu, Turkey)
KULKOYLUOGLU, OKAN, Muzaffer Dugel, and Mustafa Kilic

Land Use Planning

Ballroom A3

moderator: Dominick DellaSalla

- 4:00 Do priority regions put conservation resources in the right places?
Wilson, Kerrie, Bob Pressey, MATTHEW WATTS, Belinda Reyers, Richard Cowling, Amanda Lombard, and Mathieu Rouget
- 4:15 Status of mature and old-growth forests in the Pacific Northwest, USA
DELLASALA, DOMINICK, James Strittholt, and Hong Jiang
- 4:30 Beyond representation: gradient approaches to conservation reserve design
WEISS, ANDREW
- 4:45 Are national parks enough? The conservation value of lightly protected management areas in East Africa
GARDNER, TOBY, Tim Caro, Emily Fitzherbert, Tasila Banda, and Punit Lalbhai
- 5:00 Growth pressures on sensitive natural resources in the Twin Cities metropolitan region
PFEIFER, SHARON
- 5:15 Landscape change in a protected area of the Brazilian Atlantic forest
DOBROVOLSKI, RICARDO, Heinrich Hasenack, Andreas Kindel, and Paulo Luiz de Oliveira
- 5:30 Improving land development and stormwater management policies to protect imperiled aquatic species: a case study in the Etowah River Basin (Georgia, USA)
DREELIN, ERIN, Laurie Fowler, and Ron Carroll
- 5:45 Assessing the role of the National Wildlife Refuge system in conserving America’s bird diversity
RUPP, DAVID and J. Michael Scott

Marine Conservation Science

Ballroom A6

moderator: Carrie Kappell

- 4:00 Contaminant-associated immune alteration in Black-footed Albatrosses (*Phoebastria nigripes*), North Pacific predators
FINKELSTEIN, MYRA, Keith Grasman, Donald Croll, Bernie Tershy, Bradford Keitt, Wally Jarman, and Donald Smith
- 4:15 Seascape-level correlates of coral community structure
KAPPEL, CARRIE, Fiorenza Micheli, Alastair Harborne, Peter Mumby, Craig Dahlgren, Katherine Holmes, Philip Kramer, and Daniel Brumbaugh
- 4:30 A characterization of pelagic habitat of loggerhead (*Caretta caretta*) turtles in the north Atlantic Ocean
MCCARTHY, ABIGAIL, Selina Heppell, Scott Heppell, Molly Lutcavage, and Thomas Dellinger
- 4:45 Remembering the gulf: changes in the Sea of Cortez since Steinbeck and Ricketts
SAGARIN, RAPHE, Charles Baxter, Nancy Burnett, and William Gilly
- 5:00 Site fidelity and movement of fishes in California’s Channel Islands as determined by a large acoustic receiver array: implications for reserve design
LINDHOLM, JAMES and Michael Domeier

- 5:15 Compensatory mitigation can resolve economic inefficiencies in fisheries and biodiversity management
WILCOX, CHRIS and C. Josh Donlan
- 5:30 Fishing indirectly alters carbon flow through a temperate coastal ecosystem
SALOMON, ANNE, Nick Shears, Timothy Langlois, and Russell Babcock
- 5:45 Linking individual behavior and population health: a multidisciplinary approach to predicting risk of disease exposure in sea otters
TINKER, MARTIN and Christine Kreuder

Spatial Ecology

Ballroom A7

moderator: Kenneth Halama

- 4:00 The spatial structure of forest songbird reproductive activity in a managed forest landscape
GUNN, JOHN, Marc-Andre Villard, and Jeff Bowman
- 4:15 Dynamic reserve-selection methods to maintain species' spatial habitat requirements
RAYFIELD, BRONWYN, Marie-Josée Fortin, and Andrew Fall
- 4:30 Woodland caribou and landscape disturbance in Ontario: utility of spatial statistics
VORS, LIV and Bruce Pond
- 4:45 Identifying conservation gaps on the United States—Mexico border: an opportunity to implement binational conservation strategies
Chapa-Vargas, Leonardo, GERARDO CEBALLOS, Carlos Gonzáles-Rebeles, Gabriela Gómez-Rogriquez, and Giselle Oliva
- 5:00 Modeling the landscape niche characteristics of the red diamond rattlesnake (*Crotalus ruber*): implications for conservation planning.
HALAMA, KENNETH, Adam Malisch, Michael Aspell, John Rotenberry, and Michael Allen
- 5:15 Evaluating sustainability of bushmeat hunting at the landscape scale
RIST, JANNA, Marcus Rowcliffe, Eleanor Jane Milner-Gulland, and Guy Cowlshaw
- 5:30 Improving parameter estimates used in pvas with data from zoo populations: the Misiones, Argentina jaguar (*Panthera onca*) population
LONSDORF, ERIC, Joanne Earnhardt, Mario Di Bitetti, Laury Cullen, and Lisa Faust
- 5:45 The relative effect of habitat loss and traffic volume on anuran populations
EIGENBROD, FELIX, Lenore Fahrig, and Stephen Hecnar

Student Awards: Presentations by Finalists (continued)

Ballroom A4-5

moderator: Deborah Jensen

- 4:00 Spatial ecology of fire in an East African savannah: effects of burn size and patchiness on the foraging ecology of grazers of varying body size
SENSENI, RYAN, Emilio Laca, and Tag Demment
- 4:15 Amphibian disease: can landscape features of breeding pools distinguish wetlands at risk?
GAHL, MEGAN, Aram Calhoun, and David Green
- 4:30 Applied acoustic monitoring: African forest elephant population estimates from Kakum National Park, Ghana
THOMPSON, MYA, Katharine Payne, and Stephen Schwager
- 4:45 Indirect effects of fishing on coral-reef fish communities
STALLINGS, CHRISTOPHER
- 5:00 Polling for poachers: testing a unique method for estimating illegal resource use in protected areas
SOLOMON, JENNIFER
- 5:15 Identifying non-breeding habitat in mobile species: seasonal elevational movement in a Hawaiian honeycreeper
KUNTZ, WENDY
- 5:30 Special presentation: Cats? No way! Can we conserve biodiversity in rural landscapes?
SIMONETTI, JAVIER

Organized Discussion—Leading Across Borders: A Dialogue on Conservation Science Leadership

7:30–9:00, San Carlos I & II (Hilton)

Organized by Jim Manolis (Minnesota Department of Natural Resources), Scott Stephens (Ducks Unlimited), Cara Nelson (University of Washington), and Mike Dombeck (Smith Conservation Research Fellowship Program)

The goal of the 20th annual SCB meeting is to “transcend boundaries of ecology, sociology, geography, and politics that impede conservation science and its application.” The need for transcending these boundaries has never been greater. New conservation challenges continually emerge that are larger in scale and scope than ever imagined. We contend that effective leadership is essential for meeting these challenges. However, little has been written on conservation science leadership, and developing effective leadership skills is often by trial and error or trial-by-fire. Successful conservation leaders are often too busy to reflect on, document, and share insights about what works and why. This two-hour discussion aims to bring conservation science leadership insights out of the closet and onto the table by (1) convening scientists and practitioners interested in the topic, including representatives from major conservation leadership development programs, (2) presenting a brief but pithy set of conservation

leadership propositions, (3) allowing a small panel of experienced leaders to respond (including Mike Dombeck, Jamie Rappaport Clark, and Barry Noon), (4) following up with general discussion, and, finally, (5) discussing a proposal for a longer-term leadership project that will document conservation leadership insights and make them widely accessible.

Adventures in the Integration of Art and Science

8:00–9:30, Meeting Room C

During the past decade Jim Tolisano, a field ecologist, and David Dunn, a composer and sound artist, have collaborated on a variety of biodiversity conservation field research and education projects in the southwestern United States and South America. They will share with us some of the tools and techniques they have used to integrate the work of applied field ecology and acoustical ecology, and explore some of the far-ranging potentials of this and similar art and science collaborations. An enormous number of professional artists are actively engaged in work that enhances environmental education, public awareness and participation in biodiversity conservation activities, and Jim and David will begin to examine ways in which this collaboration can yield important benefits for all conservation practice.

David Dunn, a world renowned composer and acoustical ecologist, records and applies the sounds of invertebrate and vertebrate species as both a form of natural symphonies and a tool for increasing human awareness and experience of biotic systems. Over the past 25 years his recordings and writings have profoundly influenced the rapidly growing field of acoustical ecology and he is widely recognized as a leader in this discipline. A growing body of scientists recognizes how his work also serves as a tool to monitor change in ecosystem dynamics. For example, David's recent work studying the acoustics of bark beetles (*Ips confusus*) in the southwestern United States has provided a unique method to predict and map the colonization patterns of this opportunistic species. David will take us on a tour of the innovative technology he is using to reveal insightful patterns in the sounds of the natural world.

Jim Tolisano has worked in more than 30 countries as a field ecologist in the design and implementation of biodiversity conservation projects. Over the past 25 years his work has ranged from the development of large mammal inventory and habitat assessment programs to the elaboration of integrated community driven conservation and development strategies. He is presently working with rural communities in West Africa to develop chimpanzee conservation programs, the facilitation of a National Biodiversity Strategy for Suriname, and the development of a methodology for stakeholder implementation of transboundary conservation programs in Latin America. However, over the years Jim has also been actively engaged in environmental education programs that use storytelling principles to engage the general public in conservation actions. He directed an outreach and education program for the New Mexico Department of Game and Fish for many years in which he applied storytelling and the visual arts in youth-based ecosystem monitoring and community education projects, and created an innovative conservation science degree program at the College of Santa Fe that engaged art students in applied biodiversity fieldwork.

The event will conclude with a question and answer dialogue between David, Jim and meeting participants as we explore practical applications of the ways in which science and art can come together to celebrate and balance our relationships with the natural world.

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and meet your neighbors...



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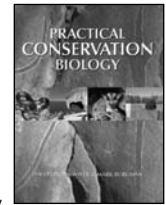
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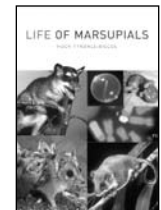
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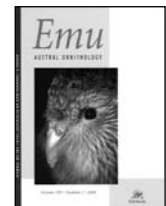
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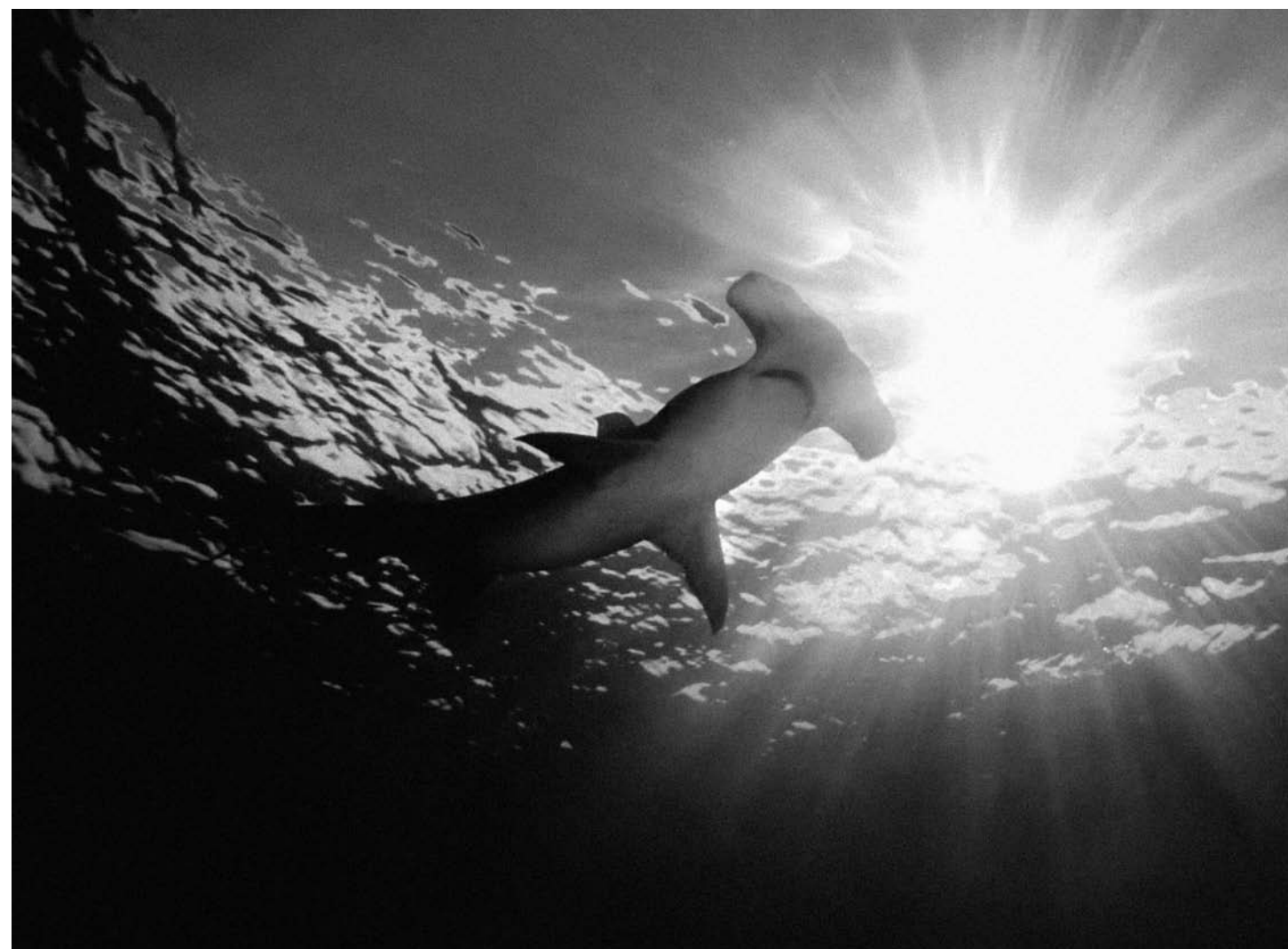
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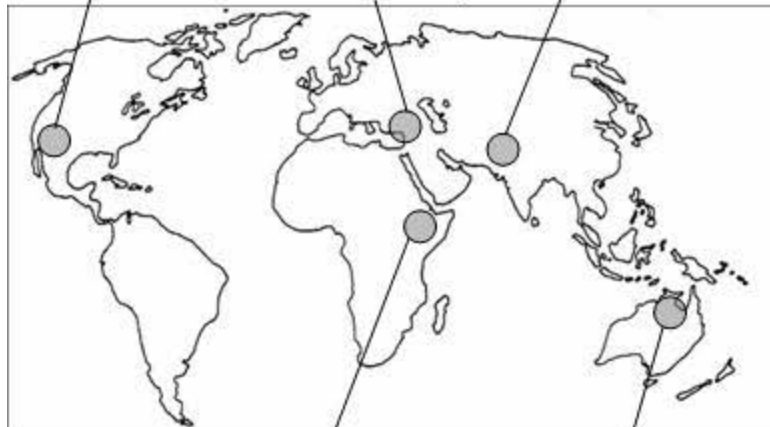
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Photo: Kyrgyz “Golden Eagleman” Asek Rajapov, a steward of the diversity of his homeland in Issyk-Kul in the Tien Shan Mountains of Central Asia. © Ken Wilson, 2005

The Greater Southwest Turkey and Central Asia



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Society for Conservation Biology • Tuesday, 27 June

Tuesday 27 June

7:30	Student Affairs Committee Meeting University Room (Hilton)								7:30
8:00	Plenary Session: James Estes San Jose Civic Auditorium								8:00
8:30	Break								8:30
9:00	Break								9:00
9:30	Break								9:30
10:00	Symposium: Climate Change Meeting Room B	Symposium: Freshwater Invasive Species Meeting Room C	Adaptive Management Ballroom A1	Conservation Biogeography Ballroom A2	Marine Conservation Practice Ballroom A3	Protected Area Design Ballroom A6	Urban Ecology Ballroom A7	Workshop: Conservation Psychology Ballroom A8	10:00
10:30	Africa Section Meeting Ballroom A1	Asia Section Meeting Ballroom A2	Austral and Neotropical America Section Meeting Ballroom A3	Australasia Section Meeting Ballroom A6	Europe Section Meeting Ballroom A7	Marine Section Meeting Ballroom A8	North America Section Meeting Ballroom A4-5	Workshop: Disaster Vulnerability Ballroom A8	10:30
11:00	Symposium: Market-Based Marine Conservation Meeting Room B	Symposium: Conserving Migratory Ungulates Meeting Room C	Community-Driven Conservation Ballroom A1	Conservation Genetics Ballroom A2	Invasive Species Ballroom A3	Spatial Ecology Ballroom A6	Workshop: Bridging the Worlds of Science and Journalism Ballroom A4-5	11:00	
11:30	Break								11:30
12:00	Break								12:00
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21:00	Break								21:00

Society for Conservation GIS • Tuesday, 27 June

Tuesday 27 June

8:30	Joint Plenary Session: James Estes			8:30
9:00				9:00
9:30	Break			9:30
10:00	Peer Reviewed Cartography Salon I	Conservation in the Community: Stakeholders, Ecosystems, and Culture Salon II	GIS for Biodiversity Assessment and Analysis Salon IV	10:00
10:30				10:30
11:00				11:00
11:30				11:30
12:00	Lunch and Networking			12:00
12:30				12:30
13:00				13:00
13:30	Public Participation GIS and Community Based Conservation Salon II	Workshop: Introduction to Watershed Based Raster Analysis Using Spatial Analyst Salon III	Advanced Modelling and Analysis in Conservation GIS Salon IV	13:30
14:00				14:00
14:30				14:30
15:00				15:00
15:30	Break			15:30
16:00	GIS for Conservation Coordination, Communication, and Collaboration Salon II	Workshop: Introduction to GIS for Habitat Analysis and Home Range Estimation Salon III	Global Conservation Models and Analysis Salon IV	16:00
16:30				16:30
17:00				17:00
17:30				17:30

Plenary Session—Dr. James Estes

8:30–9:30, San Jose Civic Auditorium

Repatriating Ecological Process: A Role for Big Predators?

Although large predatory mammals once were common throughout most of the world, they have been among the first species to disappear in human-altered land and seascapes. Has the loss of these creatures influenced the way modern ecosystems look and operate, and if so what can or should be done about it? Hairston, Smith, and Slobodkin's (HSS) now classic work, its later iterations, and a plethora of empirical studies have established the importance of predation as an ecological process. Despite this rich history and well-known scientific culture, the ecological importance of large predatory mammals remains poorly understood and underappreciated. I will review findings from research conducted by my group and many others to illustrate the strength of effects and the diversity of ways by which large predatory mammals can shape ecosystem structure and function. Although HSS / Paineian "trophic cascades" characterize numerous species and ecosystems, the interaction web pathways that stem from large predators are more complex and interesting than this. Changes in the distribution and abundance of large predators can result in ecological chain reactions and shifts in connective processes across ecosystems, sometimes influencing matters of substantial human value along the way. While these processes and effects occur both in terrestrial and aquatic ecosystems, tactics and targets for repatriating the functional roles of large predators may differ rather fundamentally between land and sea.

Symposium—Conservation in a Changing Climate

Meeting Room B

organized by Rebecca Shaw (The Nature Conservancy), Christopher Pyke (U.S. Environmental Protection Agency), and Joshua Lawler (Oregon State University)

Ecosystem processes and biodiversity are intrinsically sensitive to climate variability and climate change. Humans are complicating these fundamental ecological relationships through ongoing changes in global climate and myriad interacting stressors such as habitat loss, habitat fragmentation, invasive species, and pollution. Trends in all of these factors point in the same direction: ecological systems must adapt to become more resilient to climate variability and change. The alternative is further degradation and, in many cases, local extirpation and global extinction. A growing body of research shows that it is possible to identify the vulnerabilities of ecological systems and develop practical plans for improving their resilience. This symposium will review the evidence underlying the growing sense of urgency for adaptive action and showcase a broad range of ongoing and emerging approaches to impact assessment and the development of adaptive conservation strategies. Finally, it will consider barriers to the implementation of these strategies and highlight important research needs. Speakers will address these issues with respect to terrestrial, freshwater, and marine conservation practice, emphasizing new research that supports practical tools for on-the-ground or in-the-water conservation.

- 10:00 Climate and adaptation: assessment, governance, and practice
PULWARTY, ROGER
- 10:15 A challenge for conservation: climate and chemical consequences of carbon dioxide emissions
CALDEIRA, KEN
- 10:30 Managing California aquatic ecosystems under climate change
PURKEY, DAVID
- 10:45 Living on the edge: keeping coastal wetlands above rising seas
SAXON, EARL
- 11:00 Addressing the effects of climate change on coral reef ecosystems
HANSEN, LARA
- 11:15 Adaptation options for invasive species management and monitoring to incorporate climate change effects
BIERWAGEN, BRITTA
- 11:30 A framework for biodiversity conservation under a changing climate
SHAW, REBECCA
- 11:45 Panel discussion
Chris Pyke, Joshua Lawler, Rebecca Shaw, Roger Pulwarty, and Chris Field

Symposium—Freshwater Invasive Species: A Double-Edged Sword?

Meeting Room C

organized by Jennifer Molnar (The Nature Conservancy), Carmen Revenga (The Nature Conservancy), and Mordecai Ogada (Nairobi, Kenya)

Alien invasive species have had significant negative impacts on freshwater ecosystems. Once established, these species can outcompete or kill native species and alter ecosystem processes. Many times invasive species also have negative economic impacts, such as the clogging of waterways and infrastructure or the reduction of commercially important native fish stocks within a system. However, non-native introduced species can at times provide benefits to local communities; they have been promoted and introduced in much of the developing world for food security, and in both the developing and developed world to generate revenue through recreational activities such as sport fishing. Non-native species have also been introduced as biological controls for invasive species or agricultural pests. Symposium speakers will document the state of knowledge on freshwater invasive species distributions and address the following questions: Is it possible to address these positive and negative impacts and find win-win situations? Are there cases where introductions of non-native species have brought economic benefits, while the negative impacts on ecosystems have been minimized? Or have introductions been interrupted or minimized by finding ways to reap economic benefits that introductions could provide through other means? And can these issues be addressed at a larger policy scale?

- 10:00 The distribution of freshwater invasive species and their impacts: results from a global threat assessment
MOLNAR, JENNIFER and Carmen Revenga

- 10:15 Global linkages: forecasting the occurrence, spread and impact of freshwater nonindigenous species
LODGE, DAVID
- 10:30 Minimizing the effects on native fauna of introduced fish species for food security in developing countries
Bartley, Devin and DAVID COATES
- 10:45 Impacts and uses of exotic salmonids in Patagonia, from the pond to the ocean shelf
PASCUAL, MIGUEL
- 11:00 Ecology and economy: the trade-off in aquatic species introductions in Kenya
OGADA, MORDECAI
- 11:15 Classification and zoning of rivers: a tool for conserving threatened species and managing alien fish species with socioeconomic value
DE VILLIERS, PIERRE
- 11:30 Predicting the identity and impacts of freshwater invasive species
KELLER, REUBEN, David Lodge, David Finnoff, and John Drake
- 11:45 Uses and needs for codes of practice for the introduction of alien species
COATES, DAVID and Devin Bartley

Adaptive Management

Ballroom A1

moderator: Martha Groom

- 10:00 Reaching a decision in an uncertain world: structured decision-making under the Endangered Species Act
CHI, DANIELLE, Karl Halupka, and Robin Bown
- 10:15 How are we saving species in the 21st century?
GROOM, MARTHA, Margaret Kinnaird, and Kent Redford
- 10:30 Village size and forest disturbance in Bhadra Wildlife Sanctuary, western Ghats, India
KARANTH, KRITHI, Lisa Curran, and Jonathan Reuning-Scherer
- 10:45 Trials without tribulation: active learning for conservation management
MCCARTHY, MICHAEL and Hugh Possingham
- 11:00 Socio-economic monitoring of the Channel Islands National Marine Sanctuary reserves and the local California spiny lobster fishery
GUENTHER, CARLA, Darren Hardy, Chris Miller, and Hunter Lenihan
- 11:15 Can aversive conditioning effectively reduce human-black bear conflicts?
MAZUR, RACHEL and Rosie Woodroffe
- 11:30 Experimental control of a native predator and breeding success of a threatened seabird on Santa Barbara Island, California
MILLUS, SARAH, Paul Stapp, and Paige Martin
- 11:45 Biodiversity science—what we know, what we don't know, and where do we go from here
Rodriguez, Jon Paul and TATJANA GOOD

Conservation Biogeography

Ballroom A2

moderator: Graham Kerley

- 10:00 Freshwater ecoregions of the world: a new map for freshwater conservation
NG, REBECCA, Robin Abell, and Michele Thieme
- 10:15 Insights into the circumstances leading to the extinction of the blue antelope, derived from modeling of historical mammal distribution and abundance
KERLEY, GRAHAM, Rebeca Sims-Castley, Andre Boshoff, and Richard Cowling
- 10:30 Distribution of rare vernal pool organisms across geologic formations and soils in eastern Merced County, California
HUNTER, JOHN and Kaylene Keller
- 10:45 Novel spatial methods for predicting centers of endemism of Andean birds
HERNANDEZ, PILAR, Lily Paniagua, Aldo Soto, Jennifer Swenson, Carolina Tovar, and Bruce Young
- 11:00 An assessment of the status and trends of Mediterranean-type ecosystems
UNDERWOOD, EMMA, Rebecca Shaw, Kirk Klausmeyer, Robin Cox, Scott Morrison, Matt Merrifield, Sylvia Stone, and James Quinn
- 11:15 Are vertebrates in the tropical Andes well protected?
Rodriguez, Jon Paul, MARIA OLIVEIRA-MIRANDA, Rodrigo Lazo, Sergio Zambrano, and Efrain Tapiquen
- 11:30 Effects of habitat quality and patch isolation on the decline of New Zealand robins in a fragmented landscape
RICHARD, YVAN, Rebecca Boulton, and Doug Armstrong
- 11:45 Bee communities and forest fragmentation in tropical countryside
BROSI, BERRY, Gretchen Daily, and Paul Ehrlich

Marine Conservation Practice

Ballroom A3

moderator: Sarah Carr

- 10:00 Morphological and behavioral correlates of population status in the southern sea otter: a comparative study
BENTALL, GENA, M. Tim Tinker, and James Estes
- 10:15 Marine conservation in Latin America. a review of marine protected areas
GUARDERAS, PAULINA
- 10:30 Gradients in fish biomass across the Itacolomis Reefs no-take area boundary (Abrolhos Bank, Brazil): baseline information and evidence of fish spillover
FRANCINI-FILHO, RONALDO BASTOS and Rodrigo Leao de Moura
- 10:45 Recovery from fishing effects of epifauna on hard substrates in the Gulf of Maine
TAMSETT, ALISON and Peter Auster
- 11:00 Community conservation agreements for sea turtle nesting beach protection
GJERTSEN, HEIDI and Richard Rice
- 11:15 The marine protected area networks learning partnership: an inter-organizational collaboration
CORRIGAN, COLLEEN
- 11:30 Galapagos sharks and Hawaiian monk seals: a conservation conundrum
ANTONELIS, GEORGE, Albert Harting, Brenda Becker, Susanne Canja, Daniel Luers, and Aaron Dietrich
- 11:45 Words matter: a functional classification system for MPAs illustrates their role in conserving US marine ecosystems
WAHLE, CHARLES, Kelly Chapin, Rikki Grober-Dunsmore, Lisa Wooninck, and Nicole Woodling

Protected Area Design

Ballroom A6

moderator: Caroline Howe

- 10:00 Conservation without participation: socio-economic impacts of the establishment of the Nanda Devi Biosphere Reserve, Indian Himalayas
HOWE, CAROLINE, Eleanor Jane Milner-Gulland, and R Badola
- 10:15 Ecological ramifications of wildlife poaching in protected areas
BRODIE, JEDEDIAH and Warren Brockelman
- 10:30 Connectivity and reserve design in Galapagos Marine Reserve
Calvopina, Monica and Eliecer Cruz
- 10:45 A comparison of iterative and terminal stage procedures addressing multiple opportunity cost constraints in systematic conservation planning
CAMERON, SUSAN, Kristen Williams, and David Mitchell
- 11:00 Improving reserve design under uncertainty: adaptive decision rules for the acquisition of nature reserves
TURNER, WILL and David Wilcove
- 11:15 Evaluating spatial tools for marine conservation and biodiversity mapping on Ailinginae atoll
FULFROST, BRIAN
- 11:30 Sustainable patch-network criteria for a dispersal-limited endemic bird
CASTELLON, TRACI and Kathryn Sieving
- 11:45 Rainforest reserves for critically endangered Comorian fruit bats
SEWALL, BRENT, Amy Freestone, Mohammed Moutui, Ishaka Said, Nassuri Tolibou, Daoud Attoumane, and Saindou Mossa

Urban Ecology

Ballroom A7

moderator: Eva Fearn

- 10:00 Population structure and dispersal patterns of protected and exploited gray wolves in the Canadian Rocky Mountains
THIESSEN, CONRAD, Andrew Derocher, and David Coltman
- 10:15 Multi-taxonomic patterns and thresholds of biological diversity along a gradient of human development
MANLEY, PATRICIA, Dennis Murphy, Lori Campbell, Kirsten Heckmann, Susan Merideth, Monte Sanford, and Matthew Schlesinger
- 10:30 Distinguishing effects of urban development and human disturbance on landbird communities in the central Sierra Nevada
SCHLESINGER, MATTHEW, Patricia Manley, and Marcel Holyoak
- 10:45
- 11:00 Land use change and its impact on the butterflies of the "La Tula" watershed, Puerto Rico
RODRIGUEZ, RODNEY and Carla Restrepo
- 11:15 Differences between marine communities on anthropogenic structures and natural rocky benches and implications for conservation
PISTER, BENJAMIN and Kaustuv Roy
- 11:30 Modelling the effect of traffic noise on acoustic communication in birds
PARRIS, KIRSTEN
- 11:45 Determinants of spatial assemblages of bird communities on urban patches
HUSTÉ, AURÉLIE and Thierry Boulinier

Workshop—Conservation Tools and Tips from Psychology
organized by organized by Carol Saunders (Chicago Zoological Society), Amara Brook
(Santa Clara University), and Gene Myers (Western Washington University)

10:00–12:00, Ballroom A8

Most conservation problems are caused by human behavior, and solving these problems requires understanding and changing that behavior. Although psychology is the discipline most focused on the study of human behavior, psychology's role in biodiversity conservation has been surprisingly minimal compared to the other sciences. Conservation psychology is a relatively new field that seeks to understand why people help or hurt the natural environment and how to promote conservation. The goal of this workshop is to introduce this field of research and provide examples of how it might be useful to biologists, social scientists, and conservation practitioners. We will begin with brief overview talks about some principles and methods from psychology that can be applied to biodiversity conservation. Workshop participants will then join a discussion about how the various disciplines complement each other and the potential for collaborative research. Because the history of conservation psychology mirrors that of conservation biology, we hope to provide an avenue to explore partnerships between the two fields. We also hope to attract members of the Social Science Working Group to discuss how the social sciences can best work together toward biodiversity conservation goals. This workshop should result in a greater awareness of what the field of conservation psychology offers and generate ideas for how to strengthen programmatic and research connections across disciplines.

Symposium—New, Market-Based Strategies for Marine Conservation
organized by Mike Beck (The Nature Conservancy), Charles Cook (The Nature Conservancy), Craig Denisoff (Wildlands, Inc.) and
Rod Fujita (Environmental Defense)

Meeting Room B

Recent national reports in the United States have documented the importance and decline of marine resources. New efforts and approaches are needed to create and maintain healthy, sustainable, and resilient marine ecosystems. Traditional approaches to science, restoration, and management within the marine environment have unsuccessfully linked the needs of the environment, economy, and local communities. These traditional approaches must be supplemented by new, innovative approaches that unify environmental, economic, and social needs. This session will explore four recent innovative efforts to develop and implement market-based marine conservation strategies. Presenters will discuss their experiences and seek input from participants on broader applications and implications of four new strategies: conservation leasing and ownership of submerged lands, dedicated access privileges for fisheries, conservation buybacks of fishery permits and vessels, and marine mitigation banking.

- 1:30 Reducing opposition to ocean conservation
FUJITA, ROD
- 1:45 Testing a new tool for marine conservation: protecting essential fish habitat through the acquisition of federal fishing permits and trawl vessels
COOK, CHARLES
- 2:00 Mitigation banking opportunities in the coastal and ocean environment
DENISOFF, CRAIG
- 2:15 Conservation leasing and ownership of submerged lands: new tools for marine conservation
BECK, MICHAEL
- 2:30 Discussion

Symposium—The Great Migrations: Conserving Migratory Ungulates
in a Transboundary Context

Meeting Room C

organized by Simon Thirgood (Macaulay Institute, Aberdeen) and E.J. Milner-Gulland (Imperial College, London)

The great ungulate migrations of Africa, Asia, and North America are among the world's most impressive wildlife spectacles. Few biologists can fail to be moved by thousands of wildebeest surging across the Mara River on their annual migration from the Serengeti plains in Tanzania to the Mara woodlands in Kenya. Wildebeest populations in Serengeti have increased with release from rinderpest but this conservation success is unusual for migratory ungulates elsewhere, which almost universally have suffered major declines in abundance. The conservation of migratory ungulates is problematic because of their requirements for space. As human populations expand and natural habitats are lost, migratory ungulates are isolated from critical seasonal resources. Fences, roads, and pipelines block migration routes. Many migratory ungulates are harvested thus compounding habitat loss. Migration routes often cross geopolitical borders adding a political component to ungulate management. This symposium focuses on the complexities of ungulate conservation when migratory ranges overlap geopolitical boundaries. The symposium will include presentations of cross-cutting issues and detailed case studies by researchers with field experience of migratory ungulates throughout the world.

- 1:30 The great migrations of Serengeti
SINCLAIR, ANTHONY, John Fryxell, Kristine Metzger, and Michael Norton-Griffiths
- 1:45 Causes and consequences of herbivore migration: a theoretical perspective
FRYXELL, JOHN
- 2:00 Threats to the great migration: conserving the migratory wildebeest of the Serengeti
Hopcraft, Grant, Ephraim Mwangomo, and Simon Thirgood
- 2:15 Decision-making in a migratory ungulate: effects of human intervention in a dynamic system
MILNER-GULLAND, E.J. and Eric Morgan
- 2:30 Migration and conservation of the Mongolian gazelle
ITO, TAKEHIKO, Naoko Miura, Badamjav Lhagvasuren, Dulamtseren Enkhbileg, Seiki Takatsuki, Atsushi Tsunekawa, and Zhaowen Jiang

Conservation Without Borders • Tuesday, 27 June

- 2:45 The faces of a migration corridor—beyond protected areas and the challenge of a conflicted populace
BERGER, JOEL, Steve Cain, and Kim Murray Berger
- 3:00 Migratory declines in partially migratory elk populations in the Canadian Rocky Mountains: a result of transboundary management conflict
HEBBLEWHITE, MARK and Evelyn Merrill
- 3:15 The last wild reindeer (*Rangifer tarandus tarandus*) migrations in Europe
STRAND, OLAV and Erling Johan Solberg

Community-Driven Conservation

Ballroom A1

moderator: William Newmark

- 1:30 An international comparison of incentives to poach saiga antelopes in post-Soviet central Asia
KÜHL, ALINE, Natalia Balinova, Elena Bykova, Bekzhan Makashev, Yuri Grachev, Amankul Bekenov, Anna Lushchekina, and E.J. Milner-Gulland
- 1:45 Reconciling livelihoods and conservation through participatory research
Ballard, Heidi, Jonathan Long, and CARL WILMSEN
- 2:00 Seeds of change in fisheries management sprout across Malawi: will changes in management regimes save the fisheries?
DOBSON, TRACY, John Wilson, and Aaron Russell
- 2:15 A multi-sector framework for assessing community-based forest management: lessons from Madagascar
RAIK, DANIELA and Daniel Decker
- 2:30 Forest disturbance and understory bird community structure and composition in the Usambara Mountains, Tanzania: a 16-year study
NEWMARK, WILLIAM
- 2:45 Amigos de los monos: a primate conservation and Ngabe cultural preservation initiative
MANN, KATHRYN
- 3:00 Prioritization of threatened medicinal flora—a key to conserve sacred forests in western Ghats
SHIVALINGAIAH, RAGHAVENDRA and Cheppudira Ganapathy Kushalappa
- 3:15 Collective action for sustainable management of CPR (common pool resources) in two regions of Colombia
MAYA, DIANA and Daniel Castillo

Conservation Genetics

Ballroom A2

moderator: Kathryn Rodriguez-Clark

- 1:30 Not the quaking giant: evidence of small clone size in west coast aspen
DEWOODY, JENNIFER, Tom Rickman, Bobette Jones, and Valerie Hipkins
- 1:45 Population management of threatened taxa in captivity within their natural ranges: lessons from Andean bears (*Tremarctos ornatus*) in Venezuela
RODRIGUEZ-CLARK, KATHRYN and Ada Sanchez-Mercado
- 2:00 AFLP technology to save the world's "living fossils": a case study of a critically endangered cycad, *Encephalartos latifrons*, from South Africa
DA SILVA, JESSICA, Gail Reeves, John Donaldson, and Terry Hedderson
- 2:15 Population structure, genetic diversity, and dispersal behavior of an endangered Hawaiian bird: implications for conservation of the Oahu elepaio
BURGESS HERBERT, SARAH, Rebecca Cann, and Robert Fleischer
- 2:30 Development of genetic stocking guidelines for conservation of lake sturgeon in the Great Lakes
WELSH, AMY, Charles Krueger, and Bernie May
- 2:45 Patterns of genetic relatedness in a poached population of African elephants (*Loxodonta africana*)
Gobush, Kathleen Schuyler and Samuel Wasser
- 3:00 Small-scale genetic endemism in an endangered fairy shrimp
BOHONAK, ANDREW and Marie Simovich
- 3:15 Evaluating non-invasive hair and scat sampling methods for bobcat and other carnivore species
RUELL, EMILY, Seth Riley, John Pollinger, Lisa Lyren, Marlis Douglas, and Kevin Crooks

Invasive Species

Ballroom A3

moderator: Patricia Manley

- 1:30 What's past is prologue: land-use legacies, present-day fragmentation, and invasive species
MCDONALD, ROBERT, Glenn Motzkin, and David Foster
- 1:45 Geographic patterns of introgressive hybridization between introduced rainbow trout and native Yellowstone cutthroat trout
GUNNELL, KELLY, Margaret Ptacek, and Ernest Keeley
- 2:00 Ecosystem-level consequences of *Spartina* invasion in west coast estuaries
GROSHOLZ, EDWIN, Lisa Levin, Carlos Neira, and A.C. Tyler

Meet



Drink



Be Merry



SCB

Members Meeting

**Tuesday, 27 June
4:00-6:00pm**

Meeting Room B

Curious about SCB? The Society will unveil the location of our 2009 Annual Meeting, introduce new staff and Board members, and announce future initiatives. Help decide the direction of SCB—all are welcome.

Society for Conservation Biology
A global community of
conservation professionals

Conservation Without Borders • Tuesday, 27 June

- 2:15 The contribution of reproductive technologies for management of conservation pests
MOLINIA, FRANK, Vaughan Myers, Susana La Falci, Cheryl OConnor, and Janine Duckworth
- 2:30 Restoration of lizard habitat by experimental removal of invasive ice-plant
COMENDANT, TOSHA, Annie Schmidt, Barry Sinervo, Ammon Corl, Kate Faulkner, Sarah Chaney, and Ken Kietzer
- 2:45 Interactions between crustacean feeding fishes and the invasive crab *Hemigrapsus sanguineus* in Long Island Sound
HEINONEN, KARI and Peter Auster
- 3:00 Factors predicting establishment of introduced oysters
WAGNER, ERIC, Jennifer Ruesink, Hunter Lenihan, Alan Trimble, Kimberly Heiman, Fiorenza Micheli, James Byers, and Matthew Kay
- 3:15 Protection and recovery of native species after a rat eradication on a California island
HOWALD, GREGG, Kate Faulkner, Holly Gellerman, Bernie Tershy, Eileen Creel, Matthew Grinnell, Steven Ortega, Araceli Samaniego, Brad Keitt, Oliver Pergams, Donald Croll, and Jacob Shepherd

Spatial Ecology

Ballroom A6

moderator: G.A. Bradshaw

- 1:30 Landscape ethology: a case for sociality
BRADSHAW, G.A. and Sarah Mesnick
- 1:45 Diversity, dispersal and scale interactively affect predictability of ecosystem function
FRANCE, KRISTIN and J. Emmett Duffy
- 2:00 A patch-based spatial population viability analysis of Bank Swallows (*Riparia riparia*) nesting along the Sacramento River, California
GIRVETZ, EVAN
- 2:15 A comparison of regression-based methods for cetacean-habitat modeling
Ferguson, Megan, Jessica Redfern, JAY BARLOW, and Elizabeth Becker
- 2:30 Modeling habitat characteristics of North Atlantic right whales (*Eubalaena glacialis*) in the Gulf of Maine
GOOD, CAROLINE, Timothy Cole, Patrick Halpin, Andrew Read, Ben Best, Peter Duley, Brenda Rone, and Misty Niemeyer
- 2:45 Stable isotope analyses reveal aquatic food web complexity and conservation concerns at different spatial scales
GAINES, KAREN
- 3:00 The GHILT connection: a project to promote conservation and forest linkage in southern Bahia, Brazil
RABOY, BECKY and Gabriel Rodrigues dos Santos
- 3:15 Local and landscape determinants of forest herb diversity in hedgerows: a conservation perspective
ROY, VALERIE and Sylvie de Blois

Bridging the Worlds of Science and Journalism: A "How-To" Workshop

1:30–3:30, Ballroom A4-5

Learn to be a powerful communicator of your science. Whether talking to a journalist about a conservation debate, writing an op-ed for a local paper, or providing testimony for a government official, scientists are increasingly called upon to explain their work to public audiences. This hands-on session will provide you with practical tools and tips for translating your science to audiences outside of academia. You'll have a chance to practice these new skills and learn "do's and don'ts" of a successful media interview. A team of trainers including Michelle Nijhuis of *High Country News*, Aldo Leopold Leadership Fellows Gretchen Daily (Stanford University) and Mark Hixon (Oregon State University), and Jessica Brown of SeaWeb / COMPASS (Communication Partnership for Science and the Sea) will share their insights and provide individual feedback on how to strengthen your message so that it resonates with your audience.

Workshop—Disaster Vulnerability and Environmental Change:

1:30–3:30, Ballroom A8

Engaging Conservation Science

organized by Ken Wilson and Erika Zavaleta (The Christensen Fund)

The apparent increase in human vulnerability to "natural" disasters, such as Hurricane Katrina and the Indian Ocean Tsunami, has brought questions of how environmental change increases risk more than ever into the public consciousness. Debate has surfaced over both the growing frequency of extreme events (for instance, the record number of hurricane landfalls in 2004 and 2005 in the United States) and the long-term impacts of activities like clearing of coastal vegetation and disruption of river-sediment transport systems. These disasters also provide tragic teaching moments, when the public focuses, if only briefly, on issues of environmental services. Conservation science needs to engage in, and more deeply inform, this debate. This workshop will explore three questions about the links between conservation and disaster mitigation. (1) To what extent do highly visible disasters that follow extreme natural events reflect the declining state of ecosystems? (2) To what extent can conservation provide "disaster insurance," reducing human vulnerability and increasing resilience to extreme natural events? (3) How should the conservation science community be involved in disaster prevention, mitigation and recovery? Our speakers and discussion will focus in particular on coastal areas, where human population densities are highest and conservation can little afford to ignore their interests and well-being.

Kathryn S. Fuller Postdoctoral Fellowships Reception

6:00–7:30, Meeting Room C

World Wildlife Fund (WWF) is launching a new postdoctoral fellowship program, the Kathryn S. Fuller Postdoctoral Fellowships in Conservation Science, to support research of fundamental and immediate importance to global biodiversity conservation. The fellowships are part of a broader Kathryn S. Fuller Science Innovation Fund at WWF, which will include visiting scientists, annual symposia, and a small grants program. The first fellowship applications will be due in late 2006, and the first cohort of fellows will begin in mid to late 2007. Please join us for a drink and some more information about the program. All are welcome!

SCGIS & SCB Benefit Auction

8:00–9:30 P.M., Ballroom A4-5

The Society for Conservation Biology and the Society for Conservation GIS will be conducting a silent and live auction to share treasures and artwork from around the globe. We invite you to come to the auction prepared to bid on some wonderful and exotic items. Donations may include artwork, pottery, baskets, jewelry, books, photographs, and specialty foods or spirits. Each item will be displayed with an auction bid sheet that provides a short description, cultural significance, origin information, and suggested minimum bid. All money received from the auction will be shared by both societies to support international and domestic scholarship programs that provide travel and training assistance to fellow conservationists from around the world. Past auctions have raised more than \$10,000, helping to support many conservationists in the SCGIS Scholarship Program. Let's all try to make this the most profitable and most enjoyable auction to date. Even if you have not donated an item or cannot bid, please come to the auction and socialize with other conservationists. Dessert and drinks will be served.

SCB



21st ANNUAL MEETING SOUTH AFRICA 2007 SOCIETY FOR CONSERVATION BIOLOGY

The 21st Annual Meeting of the Society for Conservation Biology will be hosted by the Terrestrial Ecology Research Unit (TERU) at the Nelson Mandela Metropolitan University (NMMU), Port Elizabeth, South Africa from 1 - 5 July 2007, with support from the Africa Section of the SCB.

The overarching theme for the conference is **One World, One Conservation, One Partnership** and emphasises the need to move away from national, regional and disciplinary territoriality in support of a joint effort to conserve the world's biodiversity by uniting towards a common goal.

Port Elizabeth and two neighbouring towns, Uitenhage and Despatch, form a large metropolitan area known as Nelson Mandela Bay, after the Eastern Cape's most celebrated son. The Bay provides the perfect ecological context for the meeting as it is surrounded by spectacular biodiversity (both marine and terrestrial) and is known as the 5-biome city – ranging from grasslands to forests, including the famous fynbos vegetation. South Africa is renowned for its “big five” game reserves and there are a number of such reserves within an hour's drive from the venue. Field trips will be organised to expose delegates to our unique regional biodiversity. In addition to the extensive scientific programme, the hosts will be staging an exciting social programme including a beach party and formal banquet.

This is the first time an SCB meeting will be held in Africa and we invite you to join us for a truly enriching African experience. The Local Organising Committee is expecting around 1800 conservation professionals, academics, practitioners, managers and students from as many as 50 countries. Join the Society for Conservation Biology in advancing the science and practice of conserving the earth's biological diversity at its 21st Annual Meeting and let the African continent inspire your work in conservation biology.

For more information and opportunities for participation in the meeting, please contact:

Margot Collett
SCB 2007 Conference Project Manager
2007@conbio.org
www.conbio.org/2007

Terrestrial Ecology Research Unit
Nelson Mandela Metropolitan University
P O Box 77000, Port Elizabeth, 6031
South Africa



Society for Conservation Biology • Wednesday, 28 June

Wednesday 28 June

Student Awards (San Jose Civic Auditorium)									
Plenary Session: Jack Dangermond San Jose Civic Auditorium									
Break									
8:00	Symposium: Regional Habitat Conservation Plans Meeting Room B	Symposium: Recreational Fishers Meeting Room C	Climate Change Ballroom A1	Conservation of Migratory Taxa Ballroom A2	Marine Conservation Practice Ballroom A3	Spatial Ecology Ballroom A6	Speed Presentations Almaden Ballroom (Hilton)	8:00	
8:30								8:30	
9:00								9:00	
9:30								9:30	
10:00							Discussion: Academic Jobs at Undergraduate Institutions Ballroom A8	10:00	
10:30								10:30	
11:00								11:00	
11:30								11:30	
12:00	Conservation Biology editorial board San Carlos Room (Hilton)	Topic Area Lunches Ballroom A4-5						12:00	
12:30								12:30	
13:00								13:00	
13:30	Symposium: Advocacy in Conservation Science Meeting Room B	Symposium: Ecological Restoration Meeting Room C	Conservation Biogeography Ballroom A1	Invasive Species Ballroom A2	Marine Conservation Science Ballroom A3	Social Science Ballroom A6	Urban Ecology Ballroom A7	Workshop: Conservation Planning in California Ballroom A8	13:30
14:00								14:00	
14:30								14:30	
15:00								15:00	
15:30	Break							15:30	
16:00								16:00	
16:30	Symposium: Advocacy in Conservation Science Meeting Room B	Symposium: Connecting Land and Sea Meeting Room C	Community-Driven Conservation Ballroom A1	Conservation GIS Ballroom A2	Ecological Restoration Ballroom A3	Land Use Planning Ballroom A6	Marine Conservation Ballroom A7	16:30	
17:00								17:00	
17:30								17:30	
18:00	Closing Celebration San Jose Civic Auditorium							18:00	
18:30	Closing Reception Ballroom Concourse / Concourse 1							18:30	
19:00	Closing Reception Ballroom Concourse / Concourse 1							19:00	
19:30	Closing Reception Ballroom Concourse / Concourse 1							19:30	
20:00	Closing Reception Ballroom Concourse / Concourse 1							20:00	
20:30	Closing Reception Ballroom Concourse / Concourse 1							20:30	

Society for Conservation GIS • Wednesday, 28 June

Wednesday 28 June

8:30	Joint Plenary Session: Jack Dangermond			8:30
9:00				9:00
9:30	Break			9:30
10:00	Symposia: Using the Conservation Geportal, Developing an Observation Data Standard Salon II	Workshop: Introduction to GIS for Habitat Analysis and Home Range Estimation Salon III	Conservation GIS Techniques for Invasives and Non-Natives Salon IV	10:00
10:30				10:30
11:00				11:00
11:30				11:30
12:00	Lunch and Networking			12:00
12:30				12:30
13:00				13:00
13:30	WebGIS for Participatory Mapping, Monitoring, and Visualization Salon II	Workshop: Introduction to ArcIMS Salon III	GIS Studies in Wildlife-Human Conflict Salon IV	13:30
14:00				14:00
14:30				14:30
15:00				15:00
15:30	Break			15:30
16:00	Learning without Boundaries: Conservation Informatics Training: A Brainstorming Event Salon II	Workshop: Creating Custom Conservation Tools with the ESRI Geoprocessing Framework Salon III	GIS Methods in Forest Ecosystem Assessment Salon IV	16:00
16:30				16:30
17:00				17:00
17:30				17:30

Student Awards

8:00–8:30, San Jose Civic Auditorium

Please join us in congratulating the finalists and winners of SCB's 2006 Student Awards.

Plenary Session—Dr. Jack Dangermond

8:30–9:30, San Jose Civic Auditorium

“Deep Geography” as Inspired by “Deep Ecology”

Ecology and technology have had an interesting courtship these past few decades. Databases, statistical computing, data-loggers and simulation models have all captured our attention and resources at different levels. Geographic Information Systems have already shown some value in helping us integrate and manage many different data types based on geography, but conservation sciences have always played second fiddle to the more commercially-interesting “hard” sciences. That’s about to change, however, as some of the first “big iron” funding ever for ecological research in the United States is due to become available under the National Ecological Observatory Network (NEON) program. This program combines the latest developments in citizen science and web collaboration with mote-level wireless robotic environmental sensors at every ecosystem level.

After years of studying landscapes about which little was known, satellite imagery, cheap sensors, NEON, and programs like it mean ecologists are about to become inundated by a literal “firehose” of data. Where data management and analytical ability were important before, they may well become overwhelming issues for many practitioners. We hope to show that GIS systems are an important resource, uniquely suited to this ecological challenge.

What makes these new data sources especially problematic is the fact that it often seems no matter how strong your evidence is, governments still make short-sighted provincial decisions based solely on expediency and focused vision. We learn again and again that great analyses alone are not enough to carry the day; you have to know how to communicate those results to the public, to citizens, to donors, to voters. Issues as complex as those in conservation biology seem especially difficult to communicate. Again, we hope to show that through GIS, the visceral power of graphic maps and spatial visualization can be harnessed to great effect to communicate complex and difficult ecological information.

Finally, no matter how great the analysis and communication, changing an entire society to value stewardship over consumption, rational planning over short-sighted development, is going to take unique, special organizations who value humanity, community and relationships more than profit. The two international societies represented at these meetings, the Society for Conservation Biology and Society for Conservation GIS, have proven conclusively that when you support and enable individual, dedicated scientists and activists, great things are possible. ESRI feels privileged indeed that you have invited us to be with you and we look forward to expanding our support and commitment to you in the challenging years ahead.

Symposium—Regional Habitat Conservation Plans: the California Experience
organized by David Zippin (Jones & Stokes) and Laura Watchman (Defenders of Wildlife)

Meeting Room B

Since 1982, California has led the United States in preparing and implementing large-scale conservation plans through partnerships of local, state, and federal governments and local stakeholders. Currently, 20 of 58 counties in California are developing or have developed such plans, affecting more than 4.4 million ha (approximately 11% of the state), and will create more than 200,000 ha of new protected lands. Conservation plans approved in the 1980s and 1990s are starting to have significant impacts on endangered species, as habitat is permanently destroyed and preserves are set aside and managed. This symposium will explore the challenges, successes, and failures of conservation plan implementation in California and determine how to design plans to maximize their chances of success. Conservation plan implementation touches upon multiple topics vital to 21st century conservation, from land-use planning, to invasive species management, to preserve design and management, to conservation financing. We expect that the symposium audience will come away with an understanding of the scope and purposes of California's regional habitat conservation plans, the reasons for success and failure of HCP implementation, and ways to design conservation plans to maximize their chance of success.

10:00 An overview of regional Habitat Conservation Plans in California: status and trends
CAMPBELL, VICKI

10:15 Management of the working landscape
THOMPSON, BARTON

10:30 Developing long-term and large-scale monitoring programs for regional conservation plans
JOHNSON, BRENDA

10:45 Improving science delivery for regional conservation plans: lessons from science advisory processes in California
SPENCER, WAYNE

11:00 Implementing the San Diego MSCP program: successes and challenges
Oberbauer, Tomas and JEREMY BUEGGE

11:15 Implementation of the San Bruno Mountain Habitat Conservation Plan after 23 years
REID, THOMAS and Victoria Harris

11:30 Implementation issues for Habitat Conservation Plans in the United States
WATCHMAN, LAURA HOOD

Symposium—The Role of Recreational Fishers in Conservation and Management:
Lessons from Freshwater Systems for Marine Practitioners

Meeting Room C

organized by Elise Granek (Oregon State University), J. David Allan (University of Michigan), Elizabeth Madin (University of California, Santa Barbara) and Mark Brown (U.S. Bureau of Land Management)

In freshwater systems, scientists and managers successfully have engaged recreational fishers in planning, implementation, and enforcement of fishing restrictions; closure areas; and other management strategies. In the marine realm, however, recreational fishers have been much less involved in and supportive of similar processes. For example, during marine reserve design processes in the Channel Islands, Great Barrier Reef, and Florida Keys, vocal recreational fishers opposed to closing marine areas often impeded the implementation process. Meanwhile, river conservation organizations and state and federal agencies have, in many cases, successfully engaged recreational fishers in implementation and enforcement of fishery closures in rivers and lakes. Why does this discrepancy in recreational fisher support exist between freshwater and marine systems? How can it be reconciled to gain support of recreational fishers in marine conservation and management processes? We present this symposium as a forum for exploring why this “disconnect” in recreational fishers involvement exists between freshwater and marine conservation. Communicating across disciplinary (freshwater versus marine) boundaries and among sectors (scientists, managers, resource users) is essential to ensuring successful participation of stakeholder groups. Removing these borders to conservation science and management will facilitate resolution of the discrepancy between freshwater and marine recreational fishers in conservation.

- 10:00 Canada's recreational fisheries: the invisible collapse?
POST, JOHN
- 10:15 Fly fishing for biodiversity
HOGAN, ZEB. Jake Vander Zanden, Sudeep Chandra, David Gilroy, Brant Allen, and Erdenebat Manchin
- 10:30 Fostering an ocean ethic among the freshwater angling public
WILLIAMS, JACK
- 10:45 Bringing together freshwater and marine angling interests in conservation: Canada's sport fishing advisory board
KRISTIANSOHN, GERRY
- 11:00 Reeling in conservation: managing the red snapper fishery in the southeastern United States
Coleman, Felicia and Will Figueira
- 11:15 Recreational fishers and the Channel Islands National Marine Sanctuary Marine Protected Areas: conservation tool or usergroup conflict?
MCCREA, MERIT
- 11:30 Recreational fishers' data and involvement—essential elements in increasing biodiversity protection within the Great Barrier Reef Marine Park
CAMERON, DARREN
- 11:45 Panel Discussion

Climate Change

Ballroom A1

moderator: Diane Debinski

- 10:00 Do artificially incubated tuatara (Reptilia) survive and grow as well as those incubated naturally?
GRUBER, MONICA, Shirley Pledger, Susan Keall, Charles Daugherty, and Nicola Nelson
- 10:15 Quantifying relationships between community shifts and environmental change
DEBINSKI, DIANE, Ron VanNimwegen, and Mark Jakubauskas
- 10:30 Thermal stress is a driver of coral disease dynamics on the Great Barrier Reef
SELIG, ELIZABETH, John Bruno, Kenneth Casey, Cathie Page, Bette Willis, Drew Harvell, Jack Weiss, and Hugh Sweatman
- 10:45 Process-based modeling of climate change impacts on birds in the arid regions of South Africa
ERASMUS, BAREND, Andrew McKechnie, and Sander Oom
- 11:00 Effects of an ENSO-related fire on birds in a lowland tropical forest in Sumatra
Adeney, J. Marion, Joshua Ginsberg, GARETH RUSSELL, and Margaret Kinnaird
- 11:15 How does habitat fragmentation affect range shifts in space and time?
MELLES, STEPHANIE, Marie-Josée Fortin, and Kathryn Lindsay
- 11:30 Effects of hydrology and landuse on amphibian breeding potential and community structure in the prairie pothole region
OLKER, JENNIFER, Patrick Shoff, Lucinda Johnson, Tom Hollenhorst, Angela Rohweder, and Glenn Guntenspergen
- 11:45 Looking for trouble: unpredictability of effects of transferring water away from irrigation in the western United States
WIENER, JOHN

Conservation of Migratory Taxa

Ballroom A2

moderator: Kyle Van Houtan

- 10:00 The decline of an endangered woodland caribou population: landscape composition and adult survival
WITTMER, HEIKO, Clayton Apps, and Bruce McLellan
- 10:15 Do Magellanic penguins in the Pacific migrate?
SKEWES, ELIZABETH, P. Dee Boersma, and Alejandro Simeone

Conservation Without Borders • Wednesday, 28 June

- 10:30 Restoration of a Common Murre colony using social attraction
MCCHESENEY, GERARD, Michael Parker, Stephen Kress, Harry Carter, and Richard Golightly
- 10:45 Bald Eagle migration and habitat utilization in California's San Joaquin Valley
KOSHEAR, JEANNINE, Janet Linthicum, and Mike Smith
- 11:00 The Rakiura *Titi* restoration project: mitigation of the *Command* oil spill injury by eradication of rats from Sooty Shearwater breeding colonies in New Zealand
Nevins, Hannah, MICHELLE HESTER, Na Mate Nga Kiore, Henrik Moller, Charlene Andrade, Pete McClelland, and Josh Adams
- 11:15 Landscape configuration determines the risk of human-elephant conflict incidents in southeastern Sri Lanka
CAMPOS-ARCEIZ, AHIMSA, Seiki Takatsuki, and Sampath Ekanayaka
- 11:30 Do stress and obesity drive birth sex ratios after trans-continental reintroductions of black rhinoceros? Implications for the world herd
LINKLATER, WAYNE, Nanz Zekala, and Peter Law
- 11:45 Long distance dispersal in extinction prone Amazonian forest birds
VAN HOUTAN, KYLE, John Halley, Stuart Pimm, Richard Bierregaard Jr., and Thomas Lovejoy

Marine Conservation Practice

Ballroom A3

moderator: Lance Morgan

- 10:00 Collaboration is not intuitive: key lessons learned in the first two years of the Pacific Marine Analysis and Research Association
PATTERSON, MICHELLE and Jeff Ardron
- 10:15 De facto MPAs of the United States
CANNY, DAVE, Kelly Chapin, Charles Wahle, Monica Diaz, Rikki Dunsmore, and Lisa Wooninck
- 10:30 Software tools for coastal-marine ecosystem-based management
CARR, SARAH and Patrick Crist
- 10:45 Does sex change influence fish response to protection?
MOLLOY, PHILIP, Isabelle Cote, Iago Mosqueira, Matthew Gage, and John Reynolds
- 11:00 Threats to seabird populations and effective conservation action
TERSHY, BERNIE, Don Croll, Brad Keitt, Shaye Wolf, Jed Boulton, Jacob Sheppard, R. William Henry, Myra Finkelstein, and Alfonso Aguirre
- 11:15 Using bathymetric LIDAR to examine habitat complexity of a coral reef
WEDDING, LISA and Alan Friedlander
- 11:30 Precious cargo: the experimental translocation of Laysan teal from Laysan Island to Midway Atoll
REYNOLDS, MICHELLE, John Klavitter, Mark Vekasy, Leona Laniawe, and Jimmy Breeden
- 11:45 Living links: the Indo-Pacific marine corridors and mpa networks in indonesia—managing critical habitats for highly migratory oceanic whale species
KAHN, BENJAMIN

Spatial Ecology

Ballroom A6

moderator: Nicola Koper

- 10:00 Use of live fences by birds in a subAndean rural landscape: implications for conservation
Puyana, Jimena and LUIS MIGUEL RENJIFO
- 10:15 Incorporating system dynamics in reserve design
Leroux, Shawn, FIONA SCHMIEGELOW, Steve Cumming, Robert Lessard, and John Nagy
- 10:30 Hunter behavior, changes in catch per unit effort. and inferences for sustainability of hunting in a long-term camp rotation system
KUMPEL, NOELLE
- 10:45 Global biodiversity conservation priorities
Brooks, Thomas, Russ Mittermeier, Gustavo Fonseca, Justin Gerlach, MIKE HOFFMANN, John Lamoreux, Cristina Mittermeier, John Pilgrim, and Ana Rodrigues
- 11:00 The influence of life-history strategy on effects of grassland fragmentation and management on mixed-grass prairie birds
KOPER, NICOLA, Fiona Schmiegelow, Darcy Henderson, Patrick Fargey, John Wilmshurst, and Robert Sissons
- 11:15 Quantifying three-dimensional canopy structure in conifer forests using discrete return LIDAR
EVANS, JEFFREY and Andrew Hudak
- 11:30 Where can I go to find amphibians? Explaining amphibian occurrence in Yellowstone National Park using topographically derived landscape variables
MURPHY, MELANIE, Jeffrey Evans, Chuck Peterson, and Andrew Storfer
- 11:45 Using species distribution modeling to assess avian conservation needs in the temperate forest of central Chile
MEYNARD, CHRISTINE and James Quinn

Speed Presentations
moderated by Kent Redford

10:00–12:00, Almaden Ballroom (Hilton)

Cost-effective conservation: allocating resources to monitoring and management for marine reserves in the Gulf of California
GERBER, LEAH, Jeffrey Weilgus, Ballantyne Ford, and Enric Sala

Economic claims of transboundary conservation: reality or rhetoric? A case study of the Kgalagadi Transfrontier Park
SCOVRONICK, NOAH and Jane Turpie

Conservation, poverty, and the millennium development goals – how should international conservation NGOs negotiate the minefield?
WALPOLE, MATT

Estimating land prices and opportunity costs of conservation in a megadiversity country
OSANO, PHILIP, Andrew Balmford, Mathieu Roget, Jane Turpie, and Wilfried Thuiller

Conservation beyond borders: environmental attitudes of small-scale fishers alter favourably through co-management engagement
GELCICH, STEFAN, Juan Carlos Castilla, Michel Kaiser, and Gareth Edwards-Jones

New interactive platform for on-line learning in environmental education: the Ayuquila River e-case study, Sierra de Manantlan, Mexico
SANTANA, EDUARDO, Luis Patron, Sergio Graf, Luis Martinez, Salvador Garcia Ruvalcaba, and Brendan Barrett

Ecological thresholds and environmental regulations
HUNTER, MALCOLM and David Lindenmayer

Biodiversity conservation under armed conflict in Colombia: protected areas strategy facing disputed territories
OSPINA, GUILLERMO ANDRES

New unified global classifications of threats and conservation actions—the foundation of a systematic conservation science
SALAFSKY, NICK, Daniel Salzer, Alison Stattersfield, and Craig Hilton-Taylor

Protected areas and human displacement
REDFORD, KENT and Arun Agrawal

Can perennial vegetation link species, farms, and communities? Participatory action research to develop landscape scenarios in Iowa, USA
ATWELL, RYAN, Lisa Schulte, and Lynne Westphal

African bushmeat markets in Europe and North America
BRASHARES, JUSTIN

Graft, drugs and steal: the elephant in the corner of marine conservation
NICHOLS, WALLACE

Re-connecting grizzly bear populations across public and private lands in the U.S. Rocky Mountains: an emerging framework
PRIMM, STEVE and Seth Wilson

Peak oil: implications for conservation
CHRISTIAN, MAX and Fabiano Godoy

The effectiveness of the United States Endangered Species Act: statistical analysis based on matching methods
FERRARO, PAUL, Craig McIntosh, Monica Ospina, and Michelle Sims

Organized Discussion—Applying for Academic Jobs at Undergraduate Teaching Institutions
organized by Steve Trombulak (Middlebury College, Vermont)

10:00–12:00, Ballroom A8

A large number of the academic positions that become available each year in fields that encompass conservation biology are at institutions with an expectation of commitment to and excellence in undergraduate education. Not surprisingly, evidence of such commitment and excellence is part of the recruitment process, and can make the difference between having an application receive serious consideration or being rejected out of hand. After more than 20 years of experience chairing search committees at such an institution, it is clear to me that the vast majority of graduate students and postdoctoral associates do not know how to apply for such positions in a way to maximize their chances of success. This is not surprising, given that applicants for academic positions are largely coming from research institutions where few have mentors who are familiar with institutions where the primary focus is on education. Yet I have seen far too many good applicants fail to rise in the rankings because of poor choices in how they presented their interests and abilities in their cover letters and curricula vitae. This discussion will focus on how to avoid these mistakes and develop a strong application for an academic position at an undergraduate teaching institution.

Symposium—Advocacy In Conservation Science (continued at 4:00)
organized by J. Michael Scott (University of Idaho), Janet Rachlow (University of Idaho),
and Robert Lackey (U.S. Environmental Protection Agency)

Meeting Room B

Advocacy in science has been the focus of much debate in conservation biology and other natural resource disciplines. Advocacy in scientific research (i.e., stipulation of a preferred policy or management outcome and use of value laden language) has been at the heart of discussions surrounding significant conservation issues including global climate change, the conduct of research by public employees, and, more recently, reauthorization of the U.S. Endangered Species Act. We provide an overview of this topic and present results of a review of advocacy in the natural resource journals. Prominent scientists who have long histories of working at

Conservation Without Borders • Wednesday, 28 June

the science-policy interface in the United States will present their very different perspectives on advocacy in science. We will hear the views of science administrators, science editors, and congressional professionals on science advocacy in the policy arena. A structured discussion and question and answer period will follow the presentations. During the symposium, we will conduct a survey of attendees regarding perspectives on advocacy in conservation science and perspectives on the presentations and discussions. These results will be summarized during concluding remarks at the close of the symposium.

- 1:30 Advocacy in science: an overview and evaluation of its use in the natural resource sciences
Aycrigg, Jocelyn, Gabrielle Feldman, Robert Lackey, Anna Pidgorna, JANET RACHLOW, David Rupp, J. Michael Scott, David Stanish, and Leona Svancara
- 1:45 Using research to drive the policy agenda: science or advocacy?
PRESSEY, BOB
- 2:00 Values are a good thing in conservation biology
NOSS, REED
- 2:15 Role of advocacy in communication of science and effecting change
DAILY, GRETCHEN
- 2:30 Defining appropriate roles for science and scientists in developing, analyzing, and implementing public policy
LACKEY, ROBERT and Joshua Lawler
- 2:45 Reflections on the role of advocacy in conservation science
BOITANI, LUIGI
- 3:00 Discussion

Symposium—Ecological Restoration in a Changing World: Case Studies from California
organized by Jeffrey Corbin (University of California, Berkeley) and Michael Vasey
(San Francisco State University)

Meeting Room C

As the footprint of human activities occupies an ever greater proportion of Earth's surface, conservation biologists must develop strategies that can protect, or even rebuild, the ecological integrity of highly altered landscapes. This symposium will consider the future of conservation and restoration efforts in California in the face of the myriad threats posed by the local and regional manifestations of several drivers of global change. The delicate balance between California's natural heritage and the pressures of human activities play out daily in terms of ongoing habitat loss, the threats posed by invasive non-native species, the consequences of airborne or waterborne pollutants, and the responses of species and ecosystems to climate change. By exploring strategies that are currently employed to conserve and restore habitats in California, we hope that these insights can be helpful to scientists and habitat managers in other regions. Specifically, presentations and discussions will focus on whether we can predict the vulnerability of different ecosystems to global change, how multiple components of global change can interact to alter biodiversity or ecosystem functioning, and how economic and land-use realities can be taken into account in the design of conservation and restoration strategies.

- 1:30 Ecological restoration in California: challenges and prospects
Vasey, Michael and Karen Holl
- 1:45 Atmospheric nitrogen deposition and California biodiversity: implications of chemical climate change for conservation and restoration
WEISS, STUART
- 2:00 The hits keep coming: continuing plant invasions in California grasslands
CORBIN, JEFFREY, Joel Abraham, and Carla D'Antonio
- 2:15 Projecting the fate of native bunchgrasses in northern California's changing climate
SUTTLE, KENWYN and Meredith Thomsen
- 2:30 Changing issues for the restoration of tidal marsh ecosystems in the context of predicted climate change
CALLAWAY, JOHN, V. Thomas Parker, Michael Vasey, and Lisa Schile
- 2:45 Ecological restoration in an era of rapid global changes: potential pitfalls and redefinition of goals
STEPHENSON, NATHAN
- 3:00 Conserving endangered plant species using fire and fire surrogates in an invaded, fire-adapted community at the wildland-urban interface
MCGRAW, JODI
- 3:15 Urban stream restoration as an outdoor classroom: joining college and high school students for conservation
PURCELL, ALISON

Conservation Biogeography
moderator: Rodolfo Dirzo

Ballroom A1

- 1:30 Assigning geographic origin to the largest ivory seizure in the history of the trade
WASSER, SAMUEL, Celia Mailand, Rebecca Nelson, and Matthew Stephens
- 1:45 Floristic diversity in tropical biodiversity archipelagos
DIRZO, RODOLFO, Juan Lopez, and Armando Aguirre
- 2:00 Effects of deforestation on the prevalence of blood parasites in African rainforest birds
SEHGAL, RAVINDER, Gediminas Valkiunas, Camille Bonneaud, Wolfgang Buermann, and Thomas Smith

- 2:15 Amphibian status on northwest California landscapes: what is the role of anthropogenic disturbance in declines of amphibians in northern California?
WELSH, HARTWELL
- 2:30 Designs for protecting amphibians in managed headwater forests in the US Pacific Northwest
OLSON, DEANNA, David Rudio, Cynthia Rugger, and Stephanie Wessell
- 2:45 Dung beetle response to tropical forest modification: a global review and meta-analysis
NICHOLS, ELIZABETH, Trond Larsen, Sacha Spector, Adrian Davis, Federico Escobar, Mario Favila, and Kevina Vulinec
- 3:00 Landscape-scale risk assessment for current and future uv-b exposure of alpine amphibians of the Pacific Northwest
PALEN, WENDY
- 3:15 Natural disturbance-based harvest gap effects on click beetle assemblages (Coleoptera: Elateridae) in soil & coarse woody debris in Maine's Acadian forest
THOMAS, SHELLY, William Halteman, and Stephen Woods

Invasive Species

Ballroom A2

moderator: Marc Hoshovsky

- 1:30 A review of commensal rodent eradication on islands
SAMANIEGO, ARACELI, Gregg Howald, Juan-Pablo Galvan, Brad Keitt, James Russell, Michel Pascal, Michael Browne, Keith Broome, John Parkes, and Bernie Tershey
- 1:45 How Orange-crowned Warblers reconcile conflicting pressures between avian predators and habitat destruction by feral pigs
PELUC, SUSANA, Scott Sillett, and Cameron Ghalambor
- 2:00 A stitch in time saves nine: an effective novel approach for proactively identifying harmful "sleeper weeds"
GLUESENKAMP, DANIEL
- 2:15 Bioeconomic modeling in conservation pest management: the effect of stoat control on the probability of mohua extinction in New Zealand beech forests
CHOQUENOT, DAVID
- 2:30 From pets to pest: diet, impact and management of a feral cat population introduced on a small protected Mediterranean island
BONNAUD, ELSA, Karen Bourgeois, Eric Vidal, Jerome Legrand, Gerald Berger, Yves Kayser, Yannick Tranchant, and Franck Courchamp
- 2:45 Detecting the effects of introduced species: a case study of competition between *Apis* and *Bombus*
THOMSON, DIANE
- 3:00

Marine Conservation Science

Ballroom A3

moderator: Steve Litvin

- 1:30 From dipensation to compensation: processes that drive the recovery of a depleted population
GLAZER, ROBERT, Delgado Gabriel, Lonny Anderson, Bertelsen Rodney, and David Hawtof
- 1:45 Comparison of trawled vs untrawled mud seafloor assemblages of fishes and macroinvertebrates at Coquille Bank, Oregon
HIXON, MARK and Brian Tissot
- 2:00 Application of the Dennis-Holmes population viability assessment model to marine turtle conservation
SNOVER, MELISSA, Selina Heppell, and Tomoharu Eguchi
- 2:15 The deep-sea footprint of fishing in US Atlantic waters
STILES, MARGOT, Alice Chiu, Suzanne Garrett, Dave Allison, and Mike Hirshfield
- 2:30 Long-term temporal trends in white shark predation on pinnipeds
BROWN, ADAM, Derek Lee, Russell Bradley, and Scot Anderson
- 2:45 Assessing the importance of frontal zones on the distribution of upper tropic level predators off Cape Hatteras
LABRECQUE, ERIN, Glen Gawarkiewicz, Patrick Halpin, and Andrew Read
- 3:00 Interannual variability in the contribution of salt marshes to the production of an estuarine marine transient
LITVIN, STEVE, Michael Weinstein, and Vincent Guida
- 3:15 Integrating data to assess the risk of endangered Short-tailed Albatrosses interacting with trawlers in the North Pacific
ZADOR, STEPHANI and Andre Pun

Social Science

Ballroom A6

moderator: Francesca Grifo

- 1:30 Performance indicator importance in mpa management: analyzing stakeholder preferences using the analytic hierarchy process
HIMES, AMBER
- 1:45 Education, outreach, and advocacy: a case study comparison of communication strategies for marine conservation
PALMER, JENNIFER and Wallace Nichols

Conservation Without Borders • Wednesday, 28 June

- 2:00 Biodiversity informatics: bridging the gap between policy and science
Patel-Weynand, Toral, BEN WHEELER, and Andrea Grosse
- 2:15
- 2:30 Citizen monitoring of decommissioned roads in the Clearwater National Forest
HOLDEN, ANNA, Adam Switalski, and Len Broberg
- 2:45 Sustaining people and landscapes: combining ecological and cultural values to guide land management
KELEHER, RANDY, Bryan Evans, Kimberly Heinemeyer, Rick Tingey, and Sandra Jack
- 3:00 The economic value of Amazonian rain to agriculture in Santa Cruz, Bolivia
Killeen, Timothy and Tom Cochrane
- 3:15 Sustainability of snake exploitation in Cambodia: a livelihoods and ecological perspective
BROOKS, SHARON, John Reynolds, and Edward Allison

Urban Ecology

Ballroom A7

moderator: Bryan Cypher

- 1:30 Using predicted land cover change to predict changes in biodiversity in the central Puget Sound, Washington, USA
HEPINSTALL, JEFFREY, Marina Alberti, John Marzluff, and Jack Delap
- 1:45 Effects of roads on endangered kit foxes in natural and urban environments
CYPHER, BRIAN, Curtis Bjurlin, Julia Nelson, Carie Wingert, and Christine Van Horn Job
- 2:00 Multi-taxa assessment of the genetic impacts of fragmentation and urbanization in southern California: Jerusalem crickets (*Orthoptera stenopelmatidae*)
VANDERGAST, AMY, Eric Lewallen, Joseph Deas, Andrew Bohonak, and Robert Fisher
- 2:15 Multi-taxa assessment of the genetic impacts of fragmentation and urbanization in southern California: lizards (*Sceloporus occidentalis*, *Uta stansburiana*)
DELANEY, KATHLEEN, Robert Fisher, and Seth Riley
- 2:30 A new method for estimating population densities for prairie dogs (*Cynomys* spp.)
MAGLE, SETH, Brett McClintock, Dan Tripp, Gary White, Michael Antolin, and Kevin Crooks
- 2:45 Risk of pathogen exposure and infection of endangered Hawaiian monk seals in the main Hawaiian islands.
LITTNAN, CHARLES, Brent Stewart, Pam Yochem, and Robert Braun
- 3:00 No sign of the next generation: an investigation of decreased western hemlock (*Tsuga heterophylla*) tree seedlings in forested in urban parks
RUDD, COURTNEY
- 3:15 Spring migration and summer breeding season habitat use of riparian bird communities in the Cincinnati metropolitan area
PENNINGTON, DERRIC and Robert Blair

Workshop—Bridging the Divide: How Land Use Planners and Conservation Biologists

1:30–3:30, Ballroom A8

Join Forces to Achieve Resource Protection in California

organized by Liz Chattin (Ventura County, California Planning Division)

In this workshop, we will explore how land use planners, policy makers, and biologists can more effectively work together to accomplish habitat conservation in California. While the California Environmental Quality Act (CEQA) requires that cumulative environmental impacts be evaluated in the development of regional and individual land use plans, planning agencies overwhelmingly fall short of the mark when it comes to adequately assessing cumulative impacts for land use projects and comprehensive planning (General Plans, Regional Plans, and so forth). Land use planners are constantly under political pressure to balance habitat protection against competing economic and housing needs, and most planners lack the necessary tools to make informed land use decisions. The true costs of development are often not calculated or mitigated on both the local and regional levels, which results in an increasingly fragmented landscape and mitigation funds that are woefully inadequate to properly offset the impacts. We will discuss what planning tools are necessary to make better land use decisions regarding conservation, how the biological community can play a more integral role in land use planning, and what local and statewide government restructuring is needed to improve conservation planning and protection of our rapidly dwindling natural resources.

Symposium—Advocacy in Conservation Science (continued)

Meeting Room B

- 4:00 Science and advocacy in the U.S. Forest service
BARTUSKA, ANN
- 4:15 Communicating results of our research to society
HASELTINE, SUSAN
- 4:30 When life itself hangs in the balance: the tug-of-war between science and advocacy within the U.S. Fish and Wildlife Service
ASHE, DANIEL
- 4:45 Summary of audience survey and concluding remarks
- 5:00 Discussion

Symposium—A New Conservation Continuum: Connecting Land And Sea
 organized by Norm Sloan (Marine Section, SCB) and Ken Vance-Borland (Freshwater Working Group, SCB)

Meeting Room C

The focus of this symposium is transitional issues in coastal conservation from tropical to temperate areas. There is an emerging appreciation of a new frontier in conservation biology—that of addressing the land-to-sea continuum. Coastal biomes are diverse and complex, having terrestrial, freshwater, estuarine, near shore, and marine ecosystems in dynamic interaction within tens of kilometers; human effects in one part of the system are likely to affect others. For place-based coastal conservation, we need to better understand connections between these systems for a more integrated conservation approach that straddles ecological realms as well as human technical and administrative cultures. This prospect has resonance in the temperate north Pacific, for example, where marine nutrients are left in coastal riparian forests by spawning salmon, whereas in the tropics conservationists are concerned over dwindling mangrove forests as strategic land-sea transitional ecosystems. On a global scale, high levels of human activity in coastal zones, where a large portion of the human population lives, underscore the need for conservation in coastal ecosystems. Sustainability of coastal communities and economies depends upon successfully integrated management across the several systems that comprise coastal biomes.

- 4:00 The coastal realm—a necessary ecosystem context for integrated coastal-marine conservation and management
RAY, G. CARLETON
- 4:15 Preserving land-sea linkages in reserve selection models
STOMS, DAVID
- 4:30 Ecosystem-based approaches to managing the land-sea interface
DORFMAN, DANIEL, Zach Ferdana, and Mike Beck
- 4:45 Anthropogenic mangrove removal: resulting biotic and abiotic changes to coastal and marine systems
GRANEK, ELISE
- 5:00 Basemaps for supporting management and science in the coastal zone: reconciling topographic maps with nautical charts
BARTIER, PATRICK
- 5:15 A link between the land and sea: understanding small estuaries in Gwaii Haanas National Park Reserve of Canada
PELLATT, MARLOW
- 5:30 Freshwater and marine conditions favorable to Oregon coastal coho salmon (*Oncorhynchus kisutch*): climate linkages
LAWSON, PETER
- 5:45 Status, challenges, and prospects for conservation across the land-sea continuum
SLOAN, NORM, Ken Vance-Borland, and Carleton Ray

Community-Driven Conservation
 moderator: Joshua Drew

Ballroom A1

- 4:00 Vernal pool vegetation of California: variation, classification, and temporal dynamics
BUCK, JENNIFER, Carol Witham, Ayzik Solomeshch, Michael Barbour, Robert Holland, Roderick Macdonald, Sarel Cilliers, and Jose Antonio-Molina
- 4:15 Introducing *Crassostrea ariakensis*: using social science to manage fisheries and predict change
POWERS, KATHRYN
- 4:30 Deer, people and parks: a “wicked” wildlife management problem
LEONG, KIRSTEN and Daniel Decker
- 4:45 The conservation mosaic: a multinational approach to sea turtle conservation in the Californias
Nichols, Wallace, RODRIGO RANGEL-ACEVEDO, Johath Laudino-Santillan, Melania Castro-Lopez, Chris Pesenti, Kama Dean, Lindsey Peavey, Hoyt Peckham, Laleh Mohajerani, Salvador Jorgensen, Stephen Delgado, and Creusa Hitipeuw
- 5:00 Farmsteads and farmers can support farmland biodiversity!
AHNSTROM, JOHAN, Ake Berg, and Lars Hallgren
- 5:15 Agricultural land-use, rural culture and the conservation of Mackinders Eagle Owls in central Kenya
OGADA, DARCY
- 5:30 Impact of sand mining on the dolphin population of Kushi River of northeast India
ABDUL, WAKID, S.P. Biswas, Sanjay Das, and Dhruva Chetry
- 5:45 Human-elephant conflict around Mikumi National Park, Tanzania
GUNN, JODY, Dawn Hawkins, Fredrick Mofulu, and Guy Norton

Conservation GIS
 moderator: Hillary Robison

Ballroom A2

- 4:00 GIS-based niche modeling as a tool for multispecies conservation planning
PRESTON, KRISTINE, John Rotenberry, and Steve Knick
- 4:15 Landscape-level correlates of mammal population persistence in Ghana's savanna reserves
BURTON, COLE and Justin Brashares
- 4:30 Army cutworm moth habitat and grizzly bear conservation in the Greater Yellowstone Ecosystem
ROBISON, HILLARY, Chuck Schwartz, Peter Brussard, and Richard Aspinall

Conservation Without Borders • Wednesday, 28 June

- 4:45 Using remote sensing to predict patterns of avian community composition in the tropical countryside
RANGANATHAN, JAI, Gretchen Daily, and Paul Ehrlich
- 5:00 Managing human-elephant conflict in Assam: an integrated approach using GIS and community-based mitigation
ZIMMERMANN, ALEXANDRA, Scott Wilson, and Nandita Hazarika
- 5:15 Mapping the geography of conservation solutions
KANE, VAN and Jonathan Hoekstra
- 5:30
- 5:45 Assessing indirect effects of human activities on giant river otters (*Pteronura brasiliensis*) in the lower Yasuni Basin, Ecuador
CARRERA-UBIDA, PAOLA and Salina Heppell

Ecological Restoration
moderator: Kathryn Sieving

Ballroom A3

- 4:00 Predicting avian responses to landscape change in San Francisco Bay: addressing and reducing multiple levels of uncertainty
STRALBERG, DIANA, Mark Herzog, Nils Warnock, Nadav Nur, Nicole Athearn, and John Takekawa
- 4:15 Research-based, non-chemical restoration of coastal sage scrub in a southern Californian preserve
DESIMONE, SANDRA
- 4:30 DSL or dial-up? River corridors for regional rainforest connectivity in south-temperate Chile
SIEVING, KATHRYN, Traci Castellon, and Cecilia Smith-Ramirez
- 4:45 An improved method for restoring abandoned gravel pits in the New Jersey pinelands
ZOLKEWITZ, MICHAEL, Walter Bien, and James Spotila
- 5:00 Recovery of semi-arid grasslands after reclamation of oil access roads
SIMMERS, SARA and Susan Galatowitsch
- 5:15 Songbird responses to riparian restoration: a success story
HOWELL, CHRISTINE, Geoffrey Geupel, Grant Ballard, Ryan Burnett, Renee Cormier, Thomas Gardali, Kirsten Lindquist, Nadav Nur, and Julian Wood
- 5:30 Assessing success of reintroductions of the endangered long-lived Sargent's cherry palm, *Pseudophoenix sargentii*
MASCHINSKI, JOYCE and Janice Duquesnel
- 5:45 Growth performance of *Cephalosphaera usambarensis* seedlings: effect of canopy cover, other tree species, and herbaceous plants
KIAMA, STEPHEN MAINA and Munezaro Hezekiah Kanyangemi

Land Use Planning
moderator: Kai Chan

Ballroom A6

- 4:00 Urbanization across three levels of ecological organization in the Hudson River Valley of New York state
KLEPPEL, G.S., Jeffery Allen, Guoxiang Liu, Tess Polinger, Shannon Raush, and Alexandra Yantides
- 4:15 Pigs under the palms, pest management and the conservation of the Sumatran tiger
FITZHERBERT, EMILY, Ian Bateman, Chris Carbone, Tom Maddox, and Andrew Watkinson
- 4:30 Conservation planning for ecosystem services
CHAN, KAI, Rebecca Shaw, Dick Cameron, Emma Underwood, and Gretchen Daily
- 4:45 The effects of sex and season on core habitat use by gray treefrogs: implications for management of forested habitat fragments
JOHNSON, JARRETT and Raymond Semlitsch
- 5:00 The Andean bear-cattle conflict in Oyacachi: the bumpy road from the landscape species model to an operative community management plan
FLORES, SASKIA, Macarena Bustamante, Gioconda Remache, Isaac Goldstein, and Jaime Camacho
- 5:15 Assessment of the effectiveness of forest practices rules for the Northern Spotted Owl (*Strix occidentalis*) in Washington Swedeen, Paula, and JOSEPH BUCHANAN
- 5:30 One forest three countries: predicting the ecological and economic impact of roads in the Mayan forests
AMOR, DALIA, Stuart Pimm, and John Reid
- 5:45 Non protected areas at the Ecuador-Peru border: dealing with peculiar constraints for dry forest conservation
VAZQUEZ, MIGUEL and Didier Sanchez

Marine Conservation
moderator: Ellen Hines

Ballroom A7

- 4:00 SNP discovery and genotyping in non-model organisms: examples from cetaceans
MORIN, PHILLIP, Nadia Rubio-Cisneros, Niccy Aitken, Andrew Dizon, Barbara Taylor, and Sarah Mesnick
- 4:15 Hake habitat in the California Current: distribution, dynamics and management implications
AGOSTINI, VERA, Robert Francis, Anne Hollowed, Stephen Pierce, and Christopher Wilson
- 4:30 The messenger and the message: combining traditional knowledge and modern science for marine conservation in Fiji
SIVO, LORAINI, Thomas Tui, and Linda Farley



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Our contribution to the SCB annual meeting helps to support the travel of a Venezuelan student and an Ecuadorian conservation professional to San José, California, USA.

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Conservation Without Borders • Poster Presentations

Posters, grouped by topic area, will be displayed in Exhibit Hall 1 throughout the meeting. We request that presenting authors set up their poster on the morning of Sunday, 25 June and remove their poster on the morning of Wednesday, 28 June.

A dedicated poster session and reception will be held on the evening of Monday, 26 June from 6:00 to 7:30 P.M. Please take advantage of this opportunity to discuss conservation science and practice with the presenting authors.

Adaptive Management

1. What is the “best” policy for rebuilding overfished populations?
BABCOCK, ELIZABETH, Murdoch McAllister, and Ellen Pikitch
2. How do we know if restoration is working? Evaluating habitat quality for an endangered butterfly
BRIED, JASON, Timothy Tear, Rebecca Shirer, Chris Zimmerman, and Neil Gifford
3. Use of autoecological data to inform conservation and management of mesquite and acacia woodlands in the Mojave Desert
CRAMPTON, LISA, Dennis Murphy, and Mary Peacock
4. The conservation of the Syrian serin *Serinus syriacus* in Lebanon
DAKDOUK, SOUMAR, Khaled Hamdan, Maya Hammoud, Nina Jamal, Sarine Karajerjian, Taher Khadra, and Grace Rachid
5. Closing the loop: measuring the status of effective conservation of biodiversity within ecoregions as an adaptive management strategy
ERVIN, JAMISON
6. Conservation on the endemic owls at Lianhuashan in Gansu China
Fang, Yun, Yue-Hua Sun, and Yuan Gu
7. Effects of livestock grazing on plants and songbirds in Californian valley grasslands
GENNET, SASHA, James Bartolome, and Michele Hammond
8. Measuring mammal activity on decommissioned forest roads
GERMANN, SONYA
9. Sex differences in the physiologic response to acute off-highway vehicle exposure in the Northern Spotted Owl
HAYWARD, LISA, Samuel Wasser, Celia Fairbourn, Rebecca Nelson, and Matthew Stephens
10. Measuring conservation success
Kapos, Valerie, Rosalind Aveling, Philip Bubb, Peter Carey, Abigail Entwistle, John Hopkins, Teresa Mulliken, Roger Safford, Alison Sattersfield, MATTHEW WALPOLE, and Andrew Balmford
11. Survivorship of endangered *Sylvilagus bachmani riparius* (riparian brush rabbits) following wildfire and flooding
LLOYD, MATTHEW, Laurissa Hamilton, Patrick Kelly, Daniel Williams, Elizabeth Williams, and Douglas Kelt
12. Strengthening science-based conservation for Thailand’s World Heritage Site through tiger conservation and living landscape program
PATTANAVIBOOL, ANAK, Saksit Simcharoen, Chachawan Pisdamkham, Ullas Karanth, and Amy Vedder
13. A new software program for designing, managing, monitoring, and learning from conservation projects
SALZER, DANIEL, Sheila O’Connor, David Wilkie, Nick Salafsky, Jim Fruchterman, Dave Offen, Kevin Smith, and Charles LaPierre
14. Carnivore community response to a large wildfire in San Diego County, California
SCHUETTE, PAUL, Jay Diffendorfer, Douglas Deutschman, and Scott Tremor
15. Development and implementation of a rangewide conservation program for the relict leopard frog (*Rana onca*)
SJOBERG, JON, Ross Haley, Cristina Velez, and Michael Sredl
16. Effectiveness of protection strategies in Tanzania: assessing a decade of survey data for large herbivores
STONER, CHANTAL, Tim Caro, Simon Mduma, Charles Mlingwa, George Sabuni, and Markus Borner
17. Avian use of a managed pond: a case study in south San Francisco Bay and the implications for salt pond restoration
STRONG, CHERYL
18. Temporal activity patterns of the Santa Cruz Island fox: a newfound anti-predator defense for an endangered species?
SWARTS, HILARY and Kevin Crooks
19. Physiological measure validations for the southern resident killer whale
Wasser, Samuel, KATHERINE AYRES, Brad Hanson, Rebecca Nelson, and Kathleen Hunt

Inventory and Monitoring

20. Estimating Karner blue butterfly populations using distance sampling
CALKINS, MICHAEL, James Dunn, Yumiko Chattalinni, Karl Rowland, and Brett Shelagowski
21. Dispersal of Karner blue butterflies among lupine patches within a complex forested ecosystem
DUNN, JAMES, Michael Calkins, Yumiko Chattalinni, Karl Rowland, and Brett Shelagowski

Conservation Without Borders • Poster Presentations

22. Conservation status of the Araripe manakin (*Antilophia bokermanni*), a critically endangered bird from northeastern Brazil, 10 years after its discovery
CAMPOS, ALBERTO, Weber Girão, Péricles Sena, Thieres Pinto, and Ciro Albano
23. A database to track populations of endangered, threatened, proposed and candidate species in National Parks
JOHNSON, FAGAN, Peter Dratch, and Loyal Mehrhoff
24. The status of frogs in the Mount Gede Pangrango National Park, West Java, Indonesia
Kusrini, Mirza, ANISA FITRI, and Miguel Castrence
25. Mammal abundance and richness in a tropical forest of the southern Yucatan Peninsula
LOPEZ, MELISSA, Gerardo Ceballos, and Cuauhtémoc Chávez
26. Comparison of methods for estimating density of the endangered golden lion tamarin and the introduced marmoset in Brazil's Atlantic Coast forest fragments
MORAIS JR., MARCIO, Carlos Ruiz-Miranda, Andreia Martins, and Benjamin Beck
27. Rapid inventory, assessment, and status of aspen in a Sierra Nevada watershed
MORGAN, DARCA and Adam Rich
28. Identification and conservation of new Important Bird Areas (IBAs) in Lebanon
NAYLOR, CHRISTOPHER and Richard Prior
29. The conservation status of populations of the tropidurid *Liolaemus lutzae* along its geographical range: an endemic lizard threatened with extinction
ROCHA, CARLOS FREDERICO, Carla Siqueira, and Cristina Ariani
30. Study of status, distribution, and ecology of Bengal florican (*Houbaropsis bengalensis*) in the grasslands of Royal Chitwan National Park, Nepal
THAPALIYA, KAMAL, Sanjaya Nath Khanal, Sandeep Shrestha, and Shiv Raj Bhatta

Land Use Planning

31. Understanding the relationship between trail systems and forest use in the Kakamega Forest, Kenya
BOETCHER, AMY, Thomas Gehring, and Mark Lung
32. Multitemporal land use change study: a decision making tool at south of the Condor Bioreserve, Ecuador
Cardenas, Adriana, Franz Betancourt, Victor Bernis, and FRANCIS BAQUERO
33. Conservation beyond boundaries: high noon for New Zealand's rangelands?
DICKINSON, KATHARINE, Alan Mark, and Brian Patrick
34. Mixed outcomes for ecological interactions in fragmented maulino forests
GREZ, AUDREY, Javier Simonetti, and Ramiro Bustamante
35. Rural lands stewardship and species conservation in Collier County, Florida
JOHNSON, BRUCE, Joan Morrison, and Justin Styer
36. Nocturnal emergence and foraging of the western toad (*Bufo boreas boreas*)
LoBaugh, Dawn and Lisa Eby
37. Comparative ecology of two jaguar populations under different land tenure and human disturbance regimes in Mexico
LOPEZ GONZALEZ, CARLOS, Adriana Ortega Urrieta, Eduardo de Leon Orozco, Daniel Aceves Lara, Rosa Jimenez Maldonado, and Samia Carrillo Percastegui
38. Linking scientific research, education and promotion of sustainable activities to consolidate a biological corridor in the Atlantic forest of Argentina
MARTIN VARELA, DIEGO
39. Habitat management guidelines for amphibians and reptiles
MITCHELL, PRIYA NANJAPPA, Ernesto Garcia, Bruce Kingsbury, Joseph Mitchell, Kurt Buhlmann, and Peter Dratch
40. Biodiversity issues in United States Pacific Northwest managed forests
Molina, Randy, and DEANNA OLSON
41. Use and non-use values of the Yala Swamp, Kenya to the local community
OTIENO, NICKSON
42. Reserve networks in fragmented landscapes of south-central Chile: challenges and alternatives
PAUCHARD, ANIBAL, Cecilia Smith-Ramirez, Juan Ortiz, Lohengrin Cavieres, and Juan Arnesti
43. National ecosystem gap analysis for Paraguay
RODAS, OSCAR, Alberto Yanosky, Roger Sayre, and Andrea Grosse
44. Developing biological goals and objectives for protected area management: lessons learned From Canada, Mexico, and the United States
SCHROEDER, RICHARD, Ernesto Enkerlin-Hoeflich, Chris Pease, and Stephen Virc

45. Resource use relationship of sympatric large herbivores in the Wasgomuwa National Park, Sri Lanka
WEERASINGHE, UDAYANI, Palitha Jayasekara, and Seiki Takatsuki

Conservation on Private Lands

46. *Dendrophthora bermejae*: abundance, distribution, host availability, threats, and hopes for an endangered mistletoe
CARLO, TOMAS and Sheylda Diaz-Mendez
47. Conservation of nine species of threatened birds in the Colombian east Andes
Cortes-Herrera, Oswaldo, CATHERINE GAMBA-TRIMINO, Alejandro Hernandez-Jaramillo, Giovanni Chaves-Portilla, Milena Alarcon-Alarbe, Oscar Laverde, and Jose Sanabria
48. Diet and foraging ecology of a parrot community (family Psittacidae) in Costa Rica: implications for protected area design
MATUZAK, GREG and M. Bernadette Bezy
49. Partners in restoration and agriculture: agreements to reduce regulatory burdens on farmers and landowners while achieving restoration goals
STROHM, KRISTEN, Greg Golet, Gregg Werner, and Ron Unger
50. The impact of longleaf pine straw raking on native reptile and amphibian populations in the sandhills of North Carolina, USA
SUTHERLAND, RONALD

Urban Ecology

51. The dominance of exotic tree species in the urban environment of Rio de Janeiro, Brazil, and the need of a new gardening model
BERGALLO, HELENA, Adilson Santos, and Carlos Frederico Rocha
52. Nestling provisioning rates and potential affects on the endangered California Least Tern at Alameda Point, San Francisco Bay, California
ELLIOTT, MEREDITH, Jennifer Roth, and William Sydeman
53. Urban-nesting Cooper's Hawks monitored by citizen biologists in Berkeley, California
PERICOLI, RALPH, Allen Fish, and Aaron Haiman
54. Mountain lion conservation in a fragmented urban landscape in southern California
RILEY, SETH, Jeff Sikich, Eric York, and Ray Sauvajot
55. Do nest predators influence habitat selection and nest productivity of forest songbirds in an urbanizing environment?
WITHEY, JOHN, John Marzluff, Kara Whittaker, David Oleyar, Jack Delap, Thomas Unfried, and Stan Rullman

Climate Change

56. The impact of global change on butterfly species richness in Canadian protected areas in the past century
KHAROUBA, HEATHER and Jeremy Kerr
57. Possible effects of El Niño on an endemic Sulawesi macaque: population trends in *Macaca nigrescens*
KOHLHAAS, ANN
58. Sea-level rise and the lower Keys marsh rabbit: impact of global climate change on an endangered species
LAFEVER, DAVID, Nova Silvy, Neil Perry, Craig Faulhaber, and Elizabeth Forys
59. Conservation planning for salmonids in a changing climate
MILLER, PETER, Tomas Carlo, and Sheylda Diaz-Mendez
60. Preparing to assess climate change effects on Australia's marine ecosystems
OKEY, THOMAS, Anthony Richardson, Alistair Hobday, Elvira Poloczanska, and Peter Rothlisberg
61. Synchrony between the nidification of Araripe manakin (*Antilophia bokermannii*) and the rains regime
PINTO, THIERES, Alberto Campos, Ciro Albano, and Pericles Sena
62. Elevational limits, climate change and avian extinctions
SEKERCIOGLU, CAGAN and Stephen Schneider

Wetland Ecology

63. Limnology of high-altitude rainforest streams along disturbance gradients in the Bwindi Impenetrable Forest of Uganda
KASANGAKI, AVENTINO, Lauren Chapman, and John Balirwa
64. Impact of human physical disturbance on nutrient dynamics during decay in a Kenyan mangrove forest
KIHIA MAINA, CHARLES, Jude Mathooko, and Renison Ruwa
65. Management options of Yala Papyrus Swamp for sustainable development and biodiversity conservation
MWAURA, FRANCIS, Esther Kagure, Milka Ngugi, Lucy Wanjohi, Jane Mbutia, Magdalene Makala, and Jacton Otieno
66. High prevalence of chytridiomycosis in wild populations of anurans
SCHLAEPFER, MARTIN, Phil Rosen, Michael Sredl, and Michael Ryan

Conservation Without Borders • Poster Presentations

Conservation at the Land–Water Interface

67. Occurrence and conservation of alluvial groundwater ecosystems in the western United States
REID, BRIAN, Jack Stanford, and F. Richard Hauer
68. Riparian areas in the fragmented landscape of southern Portugal: applications for conservation planning
SANTOS, MARIA, Hugo Matos, John Bissonette, and Margarida Santos-Reis
69. Population dynamics, habitat use, and trophic relations of the southeastern beach mouse in a complex coastal setting
STOUT, I. JACK, Angelique DeLong, Alexis Suazo, Megan Keserauskis, Jacob Degner, Kathryn Gillespie, Pedro Quintana-Ascencio, and James Roth

Marine Conservation Practice

70. Ecosystem-based management at nested spatial scales in North Carolina and the United States south Atlantic region
BOOMHOWER, JUDSON, Michelle Duval, Douglas Rader, Kenyon Lindeman, and Roger Pugliese
71. The allure and the reality of bottom-up ecosystem approaches to coastal resource management
EVANS, KIRSTEN and Terrie Klinger
72. Can ecosystem-based management better conserve the protected species of the northwestern Hawaiian islands?
Maresh, Jennifer, JENNIFER PALMER, Hannah Gillelan, and Lance Morgan
73. Population diagnostic of the seahorse *Hippocampus erectus* in the lagoon of La Restinga, Margarita Island, Venezuela
PADRON, MARIANA, Ernesto Ron, and Wallis Rodriguez

Marine Conservation Science

74. Conservation leasing and ownership of marine rights: leasing kelp beds to examine the nursery role of *Macrocystis* canopy
Beck, Mike, Mark Carr, and KENDRA KARR
75. Worldwide mass stranding of sperm whales: locations, numbers, composition, and causes
BROWNELL, ROBERT, Bernadette Allen, Alan Baker, Rosemary Gales, and James Mead
76. Survival rates for elasmobranches captured by a multispecies trawl fishery off Argentina
Chiaramonte, Gustavo, LEANDRO TAMINI, and Jorge Perez
77. Conservation and management needs of populations of a long-lived temperate coral under the effects of harvesting and climate change
GARRABOU, JOAQUIM, Didier Aurelle, Marc Bally, Olivier Bianchimani, Pierre Drap, Roland Graille, Jean Georges Harmelin, Christian Marschal, Jean Baptise Ledoux, Oriol Torrents, and Jean Vaclet
78. Benthic pelagic linkages in marine ecosystems and their relevance to vertical zoning in marine protected areas
Grober, Rikki, Lisa Wooninck, and Charles Wahle
79. Nutrient composition of diets consumed by threatened southern sea otters
Ofstedal, Olav, KATHERINE RALLS, M. Tim Tinker, Alice Green, Eric Heil, Rachel Harley, and James Estes
80. Chilean dolphin—aquaculture interactions in southern Chile: is aquaculture a threat for the conservation of this endemic species?
RIBEIRO, SANDRA and Francisco Viddi
81. Tourists feeding wildlife could physiologically condition animals to the wrong environment
SEMENIUK, CHRISTINA, Ben Speers-Roesch, and Kristina Rothley
82. Incidental capture of seabirds in coastal trawl fisheries
TAMINI, LEANDRO, Eugenio Coconier, Rubén Dellacasa, Matías Sidders, Jorge Perez, and Gustavo Chiaramonte
83. Implications of variability in the loggerhead sea turtle nest environment to hatchling quality, mortality, and production estimates
VAUGHAN, JASON, Jeanette Wyneken, and Selina Heppell
84. Analysis of the national inventory of MMAs: regional perspectives
WOONINCK, LISA, Rikki Grober-Dunsmore, Kelly Chapin, Sarah Fischer, Monica Diaz, and Charles Wahle

Invasive Species

85. The impact of white-tailed deer on tree regeneration and plant invasions in an eastern North American forest fragment
FETY, LAUREN, Keefe Keeley, Bryan Lantz, Rachael Collins, Rachel Ann Merz, and Jose-Luis Machado
86. Bird population responses to removal of fuel loads comprised of exotic woody plants
FINCH, DEBORAH and David Hawksworth
87. Feral cats and wildlife on Santa Catalina Island, California: distribution, disease and their effects on management
GUTTILLA, DARCEE, Julie King, Frank Starkey, and Carlos de la Rosa
88. The effect of native forb abundance declines on invasion resistance in California grasslands
HULVEY, KRIS and Erika Zavaleta

89. Impact of invasive black rats on Bonin Islands, Japan
JAYASEKARA, PALITHA and Yuji Ide
90. What makes seabirds defenseless to invasive rats? An analysis of seabird characteristics affecting vulnerability
JONES, HOLLY, Bernie Tershy, Donald Croll, Bradford Keitt, Myra Finklestein, and Gregg Howald
91. Implementation of an integrated invasive species-led and site-led management plan on Catalina Island, California
KNAPP, JOHN, Denise Knapp, and Carlos de la Rosa
92. Impact of invasive *Spartina* on avian communities in San Francisco Bay tidal salt marshes
NORDBY, J. CULLY, Jennifer McBroom, and Andrew Cohen
93. Ungulate introductions in South Africa: the poor get richer than the rich
SPEAR, DIAN and Steven Chown
94. What's a century to a snail?: An old invader finally arrives in San Francisco Bay
WEISKEL, HEIDI and Basma Mohammad
95. Negative impact of invasive mongoose on amami rabbit and its conservation
YAMADA, FUMIO, Ken Sugimura, and Sintaro Abe

Conservation of Migratory Taxa

96. Extra-pair paternity in sandhill cranes (*Grus canadensis*) revealed using microsatellite DNA markers
HAYES, MATTHEW, Hugh Britten, and Jeb Barzen
97. A survey of cave dwelling bats of northern Mexico
MORENO, ARNULFO, David Lerma, Aldo Ortiz, and Regulo Salazar
98. Biological integrity and diversity: waterfowl and the National Wildlife Refuge system
PIDGORNA, ANNA and J. Michael Scott
99. Morphological and behavioral diversity suggest that breeding populations of Lark Sparrows should be considered important units of conservation
ROSS, JEREMY and Juan Bouzat
100. Cattle facilitation of Aleutian Cackling Goose foraging patterns in Humboldt Bay pastures
SPRAGENS, KYLE and Jeffrey Black
101. Identification of Priority Areas in Vietnam for bat conservation
VU DINH, THONG

Conservation of Wide Ranging Taxa

102. Status and conservation needs of the dugong: the most endangered marine mammal of Cambodia and Vietnam
Adulyanukosol, Kanjana, Phay Somany, Leng Sam Ath, Potchana Boonyanate, Nick Cox, and Tran Hien
103. Community field survey of the endangered African wild dog (*Lycaon pictus*) in southeastern Kenya
McCreery, Kim and ROBERT ROBBINS
104. Assessment of woody species diversity and the natural potential of its conservation: case study in Burkina Faso
OUEDRAOGO, AMADE
105. Human-leopard (*Panthera pardus*) encounters in Nepal
Shah, Karan, Tej Thapa, and Prem Budha
106. Who is your mama? Maternity testing in Asian elephant
SIRIPUNKAW, CHOMCHEUN, Chalita Kongrit, Warren Brockelman, Lori Eggert, and Varaporn Akkarapatumwong

Protected Area Design

107. REBIOMA: A WCS initiative in madagascar for conservation planning
Cameron, Alison, Andry Rakotomanjaka, Aristide Andrianarimisa, and ANDRIAMANDIMBISOA RAZAIMPAHANANA
108. Using Marxan to evaluate marine protected area network designs along California's central coast
CUNDIFF, AMANDA
109. Marine protected areas along the Pacific coast of the United States: towards a regional conservation approach
FISCHER, SARAH, Rikki Grober-Dunsmore, Lisa Wooninck, and Charles Wahle
110. Natural reserves of Kazakhstan
JASHENKO, ROMAN and Irina Jashenko
111. Evaluation of conservation status of biodiversity and prioritization of areas in Cauca Valley, Colombia
MATALLANA-TOBON, CLARA LUCIA
112. Rapid biological and social inventories: protecting priority areas in Andean and Amazonian Peru
VRIESENDORP, CORINE, Bil Alverson, Robin Foster, Debra Moskovits, Andrea Nogues, Mario Pariona, Thomas Schulenberg, Douglas Stotz, and Alaka Wali

Conservation Without Borders • Poster Presentations

113. Scalling up for the conservation of the giant panda: from Pingwu ICDP to Minshan landscape
YU, CHANGQING

Transboundary Conservation

114. Ecology and conservation of Darevsky's viper (*Vipera darevskii*) in the Caucasus
AGHASYAN, LEVON and Aram Aghasyan
115. Dolphins for development—a pilot conservation project in the Mekong River
BEASLEY, ISABEL
116. Las Californias Binational Conservation Initiative: a vision for biodiversity conservation at the border of Alta and Baja California
MORRISON, SCOTT
117. Conservation status of the Nigerian chimpanzee (*Pan troglodytes vellerosus*) in Cameroon
NKU, MANASSEH ENO, Philip Forbuseh, and Terry Sunderland
118. Using MARXAN and CLUZ to produce a preliminary conservation assessment for Maputaland, South Africa
SMITH, ROBERT, Peter Goodman, and Wayne Matthews
119. The heart of Borneo: three countries, one transboundary conservation vision
TOMASEK, ADAM, Stuart Chapman, Mubariq Ahmad, and Dinoysius Sharma
120. Geographic information system assessment of fishery, tourism, and marine protected area dynamics on the border of Belize and Mexico
ZEGLER, MARK

Community-Driven Conservation

121. An assessment of the relationship between human elephant conflict and crop damage compensation methods in Bannerghatta National Park, southern India
ANAND, VIJAY, Surendra Varma, and Gopalakrishna SP
122. Developing a sea turtle recovery plan for a small scale community: a community-based conservation and management effort at Helen Atoll, Palau
BARR, JULIE, Selina Heppell, Wayne Andrew, Bryan Tilt, and Michael Guilbeaux
123. Persuading the punters: training boatmen and the conservation of the axolotl (*Ambystoma mexicanum*) and its remaining habitat, Lake Xochimilco, Mexico City
BRIDE, IAN, Richard Griffiths, and Alejandro Melendez Herrada
124. Institutionalization of Bat Count Philippines: towards a sustainable conservation program of endangered flying foxes
CARINO, APOLINARIO and Tammy Mildenstein
125. Stream restoration for coho salmon (*Oncorhynchus kisutch*) in the Little Campbell River, British Columbia, Canada
CARLSON, GLEN and Markku Kostamo
126. The role of local communities in conservation of threatened bird species in the Caspian region
DZHAMIRZOEV, GADZHIBEK, Mikhail Banik, and Sergey Bukreev
127. Community forestry and community based ecotourism: combining two challenging policy instruments to conserve spiny forests in southern Madagascar
FERGUSON, BARRY
128. Voluntary village reocation in India's Bhadra Wildlife Sanctuary: addressing people's livelihood needs while protecting a park's future
KARANTH, KRITHI
129. Community based conservation as a tool for birds and biodiversity conservation: the role of site support groups in Important Bird Areas (IBA)
KURIA, DAVID
130. Characterization of rare plant taxa in vernal pool ecosystems
LAZAR, KRISTI, Jennifer Buck, Ayzik Solomesheh, and Michael Barbour
131. Can forest management model the way for wildlife conservation on communal lands in southern Mexico?
LECHUGA, JENNIFER and Sophie Calme
132. Market driven change could improve the conservation role of trophy hunting in Africa: external accreditation of hunting operators
LINDSEY, PETER, Laurence Frank, Stephanie Romanach, Rosie Woodroffe, and Alayne Mathieson
133. Effects of habitat fragmentation on big and medium-sized mammal community in Sao Paulo state (Brazil)
LYRA-JORGE, MARIA CAROLINA, Giordano Ciocheti, and Vânia Regina Pivello
134. Participatory action research: a strategy for genetic conservation in Mt. Kitanglad natural park
VALMORES, CECILIA

135. Rediscovering the guanacos of the Paraguayan chaco
Villalba, Laura, CRISTIAN BONACIC, and Jerry Laker

Conservation Psychology

136. Human dimensions of the conflict between people and jaguars in the Amazon, Brazil
MARCHINI, SILVIO
137. The effects of warnings about depleting resources on resource consumption: a laboratory study
POSEY, DONELLE, Jeff Joireman, and Craig Parks
138. Environmentalism without resistance
RIEBEL, LINDA

Environmental Anthropology

139. Effects of disturbance on the fitness of cavity nesting birds in oak savannas
JOHNSTON, CHRISTINE, Paul Moore, and Karen Root
140. Conservation or idealization? The essence of nature dilemma and the efforts to integrate environmental politics and local knowledge in protected areas
PIERMATTEI, SANDRO

Environmental Economics

141. Economic growth, biodiversity conservation, and SCB
Dietz, Robert and William Bridgeland

Environmental Geography

142. Floristic comparison between a preserved and a disturbed cerrado physiognomy in Brasília, Brazil: a study of human impacts in the vegetation composition
PINAGÉ, EKENA and Ruth Laranja

Environmental Politics and Policy

143. Science in the Everglades: the interface of scientists and managers
FLING, HOLLY, Frank Mazzotti, and Kathi Beratan
144. International legal issues related to the implementation of a transboundary network of MPAs in eastern Africa
GRILO, CATARINA, Catarina Fonseca, Cristina Rebelo, and Jose Guerreiro
145. Governing for conservation: a diversity of governance models from southern Mexico
HAENN, NORA
146. Transboundary poaching: a case study of policies and practices
ILLES, ZOLTAN and Magdolna Rozs
147. Bolstering conservation benefits of the clean development mechanism: can non-state certification systems facilitate state-centered efforts?
LEVIN, KELLY
148. Reducing transaction costs of the clean development mechanism
LEVINE, ELIOT
149. Prioritization of U.S. National Wildlife Refuge land acquisitions for biodiversity protection
MATSON, NOAH

Environmental Sociology

150. DNA barcoding: a valuable technique for 21st century conservation?
LARSON, BRENDON
151. The effects of personal experience on public attitudes for or against the management of *Ursus americanus* in New Jersey, USA
PAULIN, JOSEPH, David Drake, David Ehrenfeld, Patrick Carr, and Kelcey Burgess

Communications and Outreach

152. Communicating for conservation: perspectives on the science-religion dialogue
GARNER, ALISSE
153. Tracking albatross and trash across borders: a tool for integrated ocean, coastal, and watershed conservation
KEIPER, CAROL, Hannah Nevins, David Hyrenbach, Michelle Hester, Cheryl Baduini, Josh Adams, Charles Moore, Jennifer Stock

Conservation Without Borders • Poster Presentations

154. The importance of carnivores in the printed media in Chile and its relevance to conservation practice
SILVA, EDUARDO, Jaime Jimenez, Roberto Schlatter, and Gabriel Ortega
155. The NSF GK-12 teaching fellowship: sixth graders examining the effects of controlled burns in Sunkhaze National Wildlife Refuge
Veverka, David and RON BOONE

Conservation Education

156. Linking undergraduate training and conservation outcomes using rapid biodiversity assessment methods
AUDET, DORIS and David Larson
157. Ecology and conservation of the maned sloth (*Bradypus torquatus*) in the cocoa region of southern Bahia, Brazil
CASSANO, CAMILA and Maria Cecilia Kierulff
158. Professionalizing the conservation sector: project management training conservation graduate programs
Godoy, Fabiano, VINAYA SWAMINATHAN, and Sara Zeigler
159. Kazakhstan Red Data Book of animals
Jashenko, Roman and IRINA JASHENKO
160. A habitat-specific education program to increase awareness of the role of introduced predators in native species decline
JONES, LAURA, Tyler Watters, Silas Dudley, Gloria Van Dragt, Randall Van Dragt, and Lee Kats
161. Love thy frogs: increasing awareness through frog conservation education in Indonesia
KUSRINI, MIRZA, Anisa Fitri, and Ani Mardiasuti
162. A holistic approach to master planning for conservation and interpretation: Catalina Island Conservancy's interpretive programming
MOREHOUSE, AARON and Ann Muscat
163. Bringing research into K-12 classrooms
SCHWIGAN, KATHY, Nathan Wilke, and Lee Birmingham
164. Chelonian research, education and conservation in southwest Cambodia
SUN, YOEUING, Sitha Som, David Emmett, and Koulang Chey

Sustainable Agriculture

165. Effects of grazing on population size and predation risk for rodents in a coastal California grassland
JOHNSON, MATTHEW, Christa Horn, and James Irvine
166. Can shade trees and birds help Jamaican coffee farmers with insect pests?
Johnson, Matthew, JHERIME KELLERMANN, Amy Stercho, Robert Fowler, and Dwight Robinson
167. Solitary bee communities in a vineyard landscape
LEBUHN, GRETCHEN, Erin Rentz, and Robert Brooks
168. Landscape factors and community composition in a native parasitoid guild: a case study in conservation biological control
INERNEY, CATERINA and Stephen Welter

Remote Sensing

169. Losing the sanctuary: dry forest loss in the last Eld's deer stronghold
Songer, Melissa, Peter Leimgruber, Daniel Kelly, Briony Senior, and Briony Senior

Conservation GIS

170. Linking multivariate habitat modeling into ArcGIS with the ArcRstats Toolbox
BEST, BENJAMIN, Patrick Halpin, Dean Urban, and Song Qian
171. Island conservation planning: managing challenging priorities through integrative GIS-based analyses
DE LA ROSA, CARLOS, Denise Knapp, John Knapp, Darcee Guttilla, and Frank Starkey
172. Using GIS to identify potential corridors utilized by North American badgers in the San Francisco Bay area and Monterey County
DIAMOND, TANYA and Shannon Bros
173. Predicting changes in habitat availability due to management decisions regarding artificial water sources: a case study of bighorn sheep
LONGSHORE, KATHLEEN, Chris Lowrey, and Daniel Thompson
174. Server based tools and geodatabase to support disparate users involved with marine planning in California
MCCLINTOCK, WILL, Mary Gleason, Paulo Serpa, Chris Ball, Chad King, Bob Sherwood, and Brad Pfefferle
175. Enhancing expert opinion on Oregon coast coho salmon (*Oncorhynchus kisutch*) critical habitat with a decision support system
MILLS, JUSTIN and Peter Lawson

Conservation Biogeography

176. Landscape assessment of tree communities in the moist karst region of Puerto Rico: using existing data sets as a scaling tool in ecoregional planning
AUKEMA, JULIANN, Jaime Collazo, Maarten Kappelle, and Tomás Carlo
177. Terrestrial characteristics of Steller sea lion haulouts and rookeries
BAN, STEPHEN and Andrew Trites
178. Is taxonomic diversity important for the performance of species indicator groups for identification of areas for species conservation?
Bladt, Jesper, Frank Wugt Larsen, and Carsten Rahbek
179. Improving the performance of indicator groups for the identification of important areas for conservation of species
BLADT, JESPER, Frank Wugt Larsen, and Carsten Rahbek
180. Floristic surveys and plant biogeography on small islands in the San Juan Archipelago, Washington
DUNWIDDIE, PETER, David Giblin, Katherine Glew, and Judith Harpel
181. Amphibian chytridiomycosis and conservation in Oregon and Venezuela
HAN, BARBARA, Margarita Lampo, Dinora Sanchez, and Andrew Blaustein
182. Using biogeography to target conservation research efforts in Vietnam
HURLEY, MARTHA and Eleanor Sterling
183. Seeking biologically representative regions: a new method for quantifying and comparing species composition
JENNINGS, MICHAEL, Jonathan Hoekstra, Jonathan Higgins, and Timothy Boucher
184. Exploring the biogeographical implications of seasonal-mosaic fire regimes in the humanized savanna landscape of southern Mali
LARIS, PAUL
185. Impacts of human recreation on mammalian carnivores in protected California oak woodlands
REED, SARAH and Adina Merenlender

Spatial Ecology and Conservation

186. Proposal of a biological corridor between two protected areas in Ecuador using the least cost path analysis for the Andean Bear
BOADA, CARLOS
187. Sustainable bat conservation in Caucasus mountain regions
GHAZARYAN, ASTGHIK, Zoltan Nagy, Tomasz Postawa, Eduard Yavruyan, George Papov, Alexandr Bukhnikashvili, and Ioseb Natradze
188. Spatial ecology of translocated riparian brush rabbits
HAMILTON, LAURISSA, Matthew Lloyd, Patrick Kelly, Daniel Williams, Elizabeth Williams, and Douglas Kelt
189. Correlating areas delivering important hydrological services with key biodiversity areas in Madagascar
Honzak, Miroslav, KEITH ALGER, Marc Steininger, David Knox, Zo Rokotobe, Harison Randrianasolo, Harison Rabarison, and Luciano Andriamaro
190. Causes of mortality to the endangered southern cassowary in Queensland, Australia
KOFRON, CHRISTOPHER and Angela Chapman
191. Spatial use of territories by Whooping Cranes wintering on the Texas Gulf coast
LAFEVER, KRISTIN and R. Douglas Slack
192. Spatial ecology and abundance of Mexican bobcats in northwestern Mexico to assess its conservation status
MORENO ARZATE, CLAUDIA, Adriana Rodriguez Martinez, Ruby Gonzales Sierra, and Carlos Lopez Gonzales
193. Effects of wild grape vines on understory and mid-story vegetation in a northern hardwood forest
QUINBY, PETER
194. Badger behavior in a fragmented landscape: implications for conservation planning in California
QUINN, JESSIE
195. Is survival dependent on patch size? Survival of forest birds in southwestern Costa Rica
RUIZ-GUTIERREZ, VIVIANA and Thomas Gavin
196. Conservation in agricultural landscapes: a demographic study of a forest herb, *Trillium grandiflorum*, within hedgerows and forest patches
SCHMUCKI, RETO and Sylvie de Blois
197. Testing an abiotic freshwater classification system in the Hudson River watershed—do fish see what conservationists see?
SHIRER, REBECCA and Colin Apse
198. Multi-scale spatio-temporal analysis of road network in the Land Between ecotone
SHRESTHA, NAMRATA

Conservation Without Borders • Poster Presentations

199. Distribution and abundance of endangered marine turtles at Palmyra Atoll, central Pacific
STERLING, ELEANOR and Eugenia Naro-Maciel
200. Edge effects and fragmentation: conserving bat biodiversity
Vázquez-Domínguez, Guillermo and JORGE GALINDO-GONZÁLEZ
201. Comparing a spatially and a non-spatially explicit population viability analysis model in the context of a golden-headed lion tamarin metapopulation
ZEIGLER, SARA, Jon Ballou, Peter Leimgruber, and Becky Raboy
202. Chronological and spatial analysis of western juniper (*Juniperus occidentalis* var. *occidentalis*) in central Oregon
ZOPHY, KELLEY

Predictive Conservation Ecology

203. A Bayesian approach for estimating demographic parameters from a time series of size distributions
DAMIANI, CHRISTINE, Danny Lee, and Dana Weigel
204. Evaluating effects of habitat loss, hunting, and El Niño events on a threatened species
DUNHAM, AMY, Elizabeth Erhart, Deborah Overdorff, and Patricia Wright
205. Risk assessment of zoo populations: a new paradigm
EARNHARDT, JOANNE, Lisa Faust, Steven Thompson, Adrian Lin, and Carrie Schloss
206. Individual-based modeling of the Tarangire National Park elephants: future projections for a rapidly increasing population
FAUST, LISA and Charles Foley
207. An approach to integrate behavioral information into population models
GONZALEZ-SUAREZ, MANUELA, Claudia Hernandez-Camacho, and Leah Gerber
208. Species coextinctions and the biodiversity crisis
KOH, LIAN PIN, Robert Dunn, Navjot Sodhi, Robert Colwell, Heather Proctor, and Vincent Smith
209. Conservation of the endangered Florida Grasshopper Sparrow (*Ammodramus savannarum floridanus*) using home range delineation based on radiotelemetry
KOROSY, MARIANNE, Robin Bjork, and Reed Noss
210. Multi-scale features for identifying individuals in large biological databases
RAVELA, SAI, Lloyd Gamble, and Kevin McGarigal

Conservation Genetics

211. Conservation implications of the genetic, morphological, and phylogenetic variation of the blunt-nosed leopard lizard (*Gambelia sila*)
CORRIGAN, GWYNNE and Ammon Corl
212. Inbreeding and genetic restoration in Mexican wolves
FREDRICKSON, RICHARD, Phillip Hedrick, and Peter Siminski
213. High prevalence of sylvatic plague in fleas collected from black-tailed prairie dog burrows in north-central Montana
Hanson, David, HUGH BRITTEN, Marco Restani, and Leigh Washburn
214. Population changes and genetics of chum salmon in the southern portion of their range (California, Oregon, and Columbia River) and possible impacts of climate and other changes
JOHNSON, ORLAY, Anna Elz, and Jeffrey Hard
215. Genetic structure of Grauer's Rush Warbler (*Bradypterus graueri*), an endangered Albertine Fift endemic
Kahindo Muzusa Ngabo, Charles, John Bates, and Rauri Bowie
216. Conservation and management of swamp deer (*Cervus duvaceli branderi*) in Kanha National Park
KANOJE, RAVI SHANKER
217. Genetic identification of fish hosts of freshwater mussels in Maine
KNEELAND, STEPHEN and Judith Rhymer
218. Clinal and biogeographical genetic variation of the Dungeness crab (*Cancer magister*): implications for marine reserve design
LARDY, CORINNE and Leslee Parr
219. Relict plant populations: maintaining species diversity in small, isolated patches
STROH, ESTHER
220. Microsatellite variation in two Sichuan Jay (*Perisoreus internigrans*) populations in west China
Sun, Yue-Hua, Ting Ji, Yu Jing, and Yun Fang
221. Mortality of first born mammals: implications for demographic analyses of wild populations
THOMPSON, STEVEN, Joanne Earnhardt, and Nilla Fogelberg
222. Assessment of genetic diversity in populations of *Sanguinaria canadensis* using AFLP analysis
ULRICH, ERIN and David Danehower

223. Identifying the contribution of directional hybridization between two toad species (Genus: Bufo) to the decline of a parental species
VOGEL, LAURA

Ecological Restoration

224. Demographics of *Drosera intermedia*: comparing a recently recruited population to an older population with a different habitat
DAVIS, CHRISTOPHER
225. The impact of fire on the forest tree dynamics in Bwindi Impenetrable National Park, southwestern Uganda
MUSINGUZI, JAMES and Dominic Byarugaba
226. Original old-growth forest composition for Lyell Island, Haida Gwaii (Queen Charlotte Islands), British Columbia
PEARSON, AUDREY and Sarah Gergel
227. Meeting the challenges of Canada's Species at Risk Act: Parks Canada's West Coast Species at Risk program
SHEPHERD, PIPPA and Brian Reader
228. The habitat delineation and restoration of Sacramento perch using conservation physiology
WOODLEY, CHRISTA

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