



Pacific Seabird Group

Fortieth Annual Meeting

Hilton Portland and Executive Tower
Portland, Oregon USA
20-24 February 2013



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Pacific Seabird Group

DEDICATED TO THE STUDY AND CONSERVATION OF PACIFIC SEABIRDS AND THEIR
ENVIRONMENT

Pacific Seabird Group Executive Council for 2012

Officers

<i>Chair</i>	Kim Rivera
<i>Chair-elect</i>	Doug Forsell
<i>Past Chair</i>	Pat Jodice
<i>Vice-chair for Conservation</i>	Craig Harrison
<i>Treasurer</i>	Lindsay Young
<i>Secretary</i>	Heather Major
<i>Editor</i>	Vivian Mendenhall

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<i>Alaska and Russia</i>	Adrian Gall
<i>Canada</i>	Ken Morgan
<i>Washington and Oregon</i>	Donald Lyons
<i>Northern California</i>	Hannahrose Nevins
<i>Southern California, Latin America and Hawai'i</i>	Jennifer Boyce
<i>United States (excluding AK, WA, OR, CA and HI)</i>	Iain Stenhouse
<i>Asia and Oceania</i>	Yutaka Watanuki
<i>Europe/Africa</i>	Steffen Oppel
<i>Student Representative</i>	Sarah Thomsen

Local Organizing Committee for the 2013 Annual Meeting

Holly Freifeld	Doug Forsell	Pat Jodice
<i>Chair</i>	<i>Scientific Program Chair</i>	<i>Awards Committee Chair</i>

Local Committee Members:

Jessica Adkins	Michelle Kappes	Don Lyons
Lindsay Adrean	Peter Kappes	Allison Mohoric
Kirsten Bixler	Tim Lawes	Kim Nelson
Amanda Gladics	Pete Loschl	

The Pacific Seabird Group acknowledges the generous support of the following sponsors and donors

Financial Support:



Special Acknowledgements:

In addition to the acknowledgements above, the following people and organizations contributed their assistance and expertise to making this meeting possible.

Audio-visual and poster wrangling:

Lindsay Adrean

A/V management during sessions:

Tim Lawes

Field trip organizing and logistics:

Peter Kappes, Amanda Gladics

Hilton Sales Department:

Jodi Cordova

Meeting website management:

Annette Henry

Music for dancing (and singing):

The Karaoke Kings

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Printing and Mailing Services

Registration desk:

Pete Loschl

Student-professional mentor session:

Sarah Thomsen

Sage advice: Verena Gill, Lora Leschner, Katie O'Reilly, Kim Rivera, & Lindsay Young

A/V equipment and set-up:

Audio Professionals Northwest

Conference logo and bling, entertainment:

Michelle Kappes

Fund-raising:

Kim Nelson

Menu and party planning:

Jessica Adkins, Allison Mohoric

On-line registration:

Lindsay Young, Don Lyons

Poster boards and set-up: DWA Trade Show
and Exposition Services

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Doug Forsell

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generous donors who contributed items

T-shirt artwork:

Sophie Webb

Vendor/exhibitor liaison:

Kirsten Bixler

Reg desk and paper session volunteers: Rachel Buxton, Stefanie Collar, Katharine Goodenough, Peter Kappas, Emma Kelsey, Jennifer Ma, Allison Mohoric, Adam Peck-Richardson, Catherine Pham, Yasuko Suzuki, Andréa Thiebault, and others whose names were not available prior to printing – Thank you!

Welcome to Portland!

On behalf of the Local Organizing Committee for the Pacific Seabird Group's 40th Annual Meeting, I am pleased to welcome you to beautiful Oregon and our fair city of Portland. From locations around the Pacific Northwest and beyond, the "Local" Committee has been working hard for the past year to plan what we hope is another excellent conference. This year is a milestone for PSG, and we join with everyone in celebrating forty years of distinguished research in the Pacific and around the world, important strides in seabird conservation, and a tradition of professional collaboration and mentorship that is part of our lives, whether we've been members for four years or four decades. Happy Birthday, PSG – here's to 40 more!

Holly Freifeld

Chair, Local Organizing Committee

Message from the Scientific Program Chair

We're glad to have you here with us in Portland to celebrate the 40th anniversary of the Pacific Seabird Group. Following a slow start on abstract submissions, we ended up with 115 oral presentations, 57 posters, and 3 plenary talks. The oral presentations are organized into three very full days, with two concurrent sessions. Posters presentations will be available for viewing from Wednesday 20 February through noon on Saturday 23 February; the poster reception will take place on 21 February from 1830 to 2130.

The PSG community always welcomes students, and fully one-third of our presentations this year are from students. Remarkably, over ten percent of the papers are being presented by our colleagues from Japan, showing both their increased seabird research efforts and participation in PSG. We have come a long way since the early 1980's when we were grateful that Ogi-san or Hasegawa-san were able to attend some of our meetings.

Oregon and especially Portland has been the center of Marbled Murrelet management for years. Gary Falxa led the team of Deanna Lynch, Kim Nelson, and Martin Raphael, to put together a comprehensive special paper session examining "Marbled Murrelets From Seas to Trees." Opening the meeting and the special paper session will be a plenary talk by Zach Peery summarizing the current status and future directions of Marbled Murrelet science and conservation.

On Friday, Daniel Roby will start the day with another plenary relevant to the Pacific Northwest seabirds by summarizing the work of his team over the past decade to understand the ecology of Caspian Terns and other salmon-eating waterbirds. Following the plenary, Jo Smith has organized a full day special paper session on 'Seabirds and Marine Spatial Planning.'

Saturday, we return to our theme of the meeting celebrating 40 years of seabird science and conservation with a plenary by Robert Risebrough summarizing a half-century of work on seabirds and contaminants and exploring future directions of research and conservation.

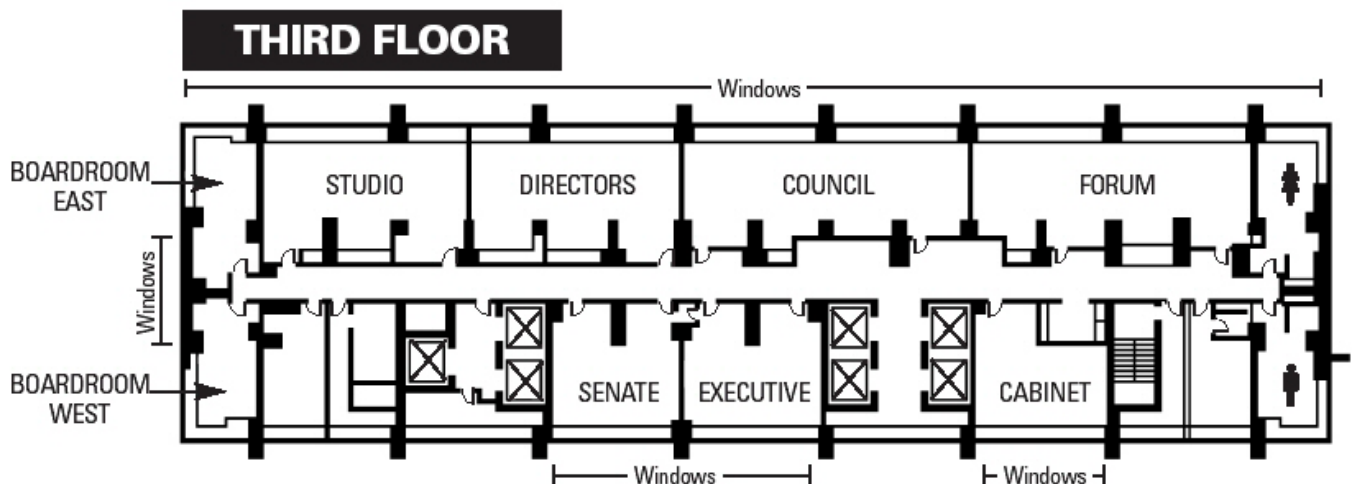
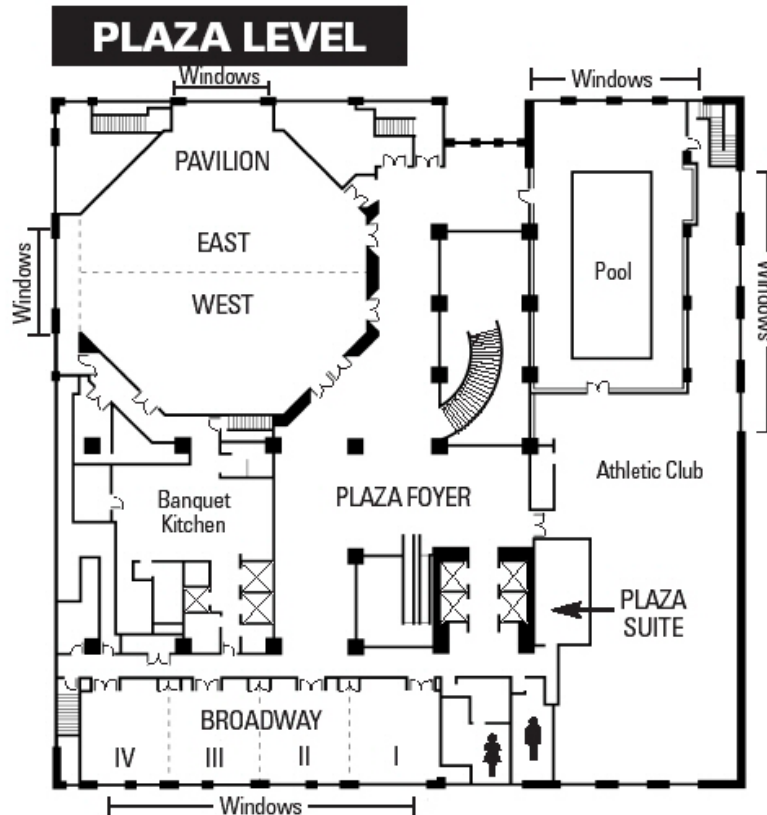
Throughout the three days there are general paper sessions in the broad categories of conservation, breeding biology, foraging ecology, contaminants, techniques, and distribution and threats at sea. I have tried to avoid conflicts of papers of similar species or subjects, and apologize if you really wanted to see two papers that occur at the same time, but that is always a problem at PSG, because there are so many interesting papers.

Many thanks to Holly Freifeld and everyone on the Local Organizing Committee, Kim Rivera, Pat Jodice, Lindsay Young, all of the session chairs, volunteers, and Annette Henry (PSG webmaster extraordinaire). And of course, a huge thanks you to all of you that will be presenting your scientific work.

Doug Forsell
Chair, Scientific Program

Hotel map and conference events

All conference events will take place on Hilton's Plaza Level and in meeting rooms on the 3rd floor. The registration table is in the Plaza Foyer. The morning plenary and our two concurrent paper sessions will be held in the Pavilion Ballroom. Posters and silent auction and vendor tables will be in Broadway I/II and in the Plaza Foyer. Committee and other meetings and the mentor session will be held in the 3rd floor rooms and in Broadway III/IV – please see the schedule for details. Breaks and receptions will be in the Foyer and Pavilion, and the banquet, awards ceremony, and dance will be in the Pavilion, too.



Conference meetings, social events, and foraging strategy

Committee and other meetings

The following PSG committees and other groups will meet before and during the scientific program. All interested members are welcome to attend these meetings. In particular, please come to Friday's Conservation Committee and PSG Business meetings. You can learn about PSG's activities during the past year and make comments or raise issues that concern you.

Wednesday 20 February

900-1700	Marbled Murrelet Technical Committee	Broadway III/IV
		3rd Floor Conference Rooms:
900-1700	PSG Executive Council (EXCO)	Forum Suite
900-1200	Kittlitz's Murrelet Technical Committee	Council Suite
900-1200	Xantus' Murrelet Technical Committee	Executive Suite
900-1200	Seabird Monitoring Committee	Senate Suite

Thursday, 21 February

1515-1700	North Pacific Albatross Working Group	Forum Suite (3rd Floor)
1700-1830	Seabird Status Assessment with USFWS*	Forum Suite (3rd Floor)

Friday, 22 February

1200-1330	PSG Conservation Committee	Broadway III/IV
1700-1900	Japanese Seabird Conservation Committee	Forum Suite (3 rd Floor)
1730-1830	PSG Business Meeting	Pavilion West

***New meeting!** Status Assessment for Seabird Species with USFWS

Convener: Jennifer Wheeler, Waterbird Coordinator, USFWS

In 2013, the USFWS will be updating its Birds of Conservation Concern lists, the purpose of which is to identify migratory and non-migratory birds of the United States and its territories that are of conservation concern so as to stimulate coordinated and proactive conservation actions among Federal, State, Tribal, and private partners. In doing so, the USFWS will look to the status assessments conducted under the auspices of the Waterbird Conservation for Americas partnership. These assessments (continental-scale/2002; California Current/2005; Pacific Islands/2005 and Alaska/2007) benefited from consultations with PSG membership; updates would as well. All interested parties are invited to this session to weigh in on proposed process for updating assessments and maximizing their utility as a tool for conservation.

Events

Welcome reception - Wednesday 20 Feb., 1900, Pavilion Ballroom

Evening poster session and reception - Thursday, 21 Feb., 1830, Plaza Foyer and Broadway I/II

Both of these catered receptions are included in your registration fee, and a variety of meat and vegetarian appetizers will be served. No-host bars serving beer and wine will be tended both evenings; we have provided a complimentary drink ticket for each registered attendee.

Student-Professional Mentor session - Friday 22 Feb., 1830, Broadway III/IV

The PSG student / mentor mixer will take place on Friday evening. Students and junior researchers are invited to come and chat with senior biologist mentors from academia,

Federal/State government, non-profit organizations and private consulting firms. Mentors will be available to answer questions about different career paths and discuss research interests, how to network, or anything else you'd like to ask them. The mixer is concurrent with the Student Happy Hour in the Plaza Foyer so grab a beverage (no-host bar) and a snack and then meet us in the Broadway III/IV room!

Banquet, awards ceremony, and dance - Saturday 23 Feb., 1830, Pavilion Ballroom

The final conference event will take place on Saturday, beginning at 1830 with a reception in the Plaza Foyer. The reception is included in your registration fee.

If you would like to attend the banquet but did not purchase a ticket when you registered, you may do so until 1230 pm on Friday 22 February at the registration desk. Tickets are \$70.00. Please wear your name tag throughout the evening. The banquet menu is Cornish game hens or butternut squash ravioli. We have taken a head-count for each item for Hilton's kitchen; their ability to make last-minute substitutions is limited. A no-host bar serving beer and wine will be tended throughout the evening.

The awards ceremony will follow the banquet, and is open to all registered attendees, even if they did not purchase a banquet ticket. PSG's Lifetime Achievement Award will be presented, as will awards for best student papers and best student poster.

A dance with live music provided by the Karaoke Kings will follow the awards ceremony, and the dance too is open to all registered attendees. The Kings have their own singer, but they are ready to be your karaoke back-up band. May fond memories or wild stories from the karaoke night in Hakodate in 2009 inspire you to step up to the microphone!

Silent auction-

The silent auction will be held alongside the posters in Broadway I/II beginning on Thursday 21 February. All proceeds from the silent auction will be used to support our student travel award program. Come and bid on some beautiful artwork, books, photographs, and other unique items donated for the auction. Sheets will be placed next to each item; indicate your bid on the sheet. *Bidding will close at 9:45 am on Saturday, 23 February.* Successful bids will be posted at 1800 on Saturday, prior to the start of the banquet; you do not need to be present at the banquet to be eligible. We will accept payment by cash or check only for items won. If you would like to donate auction items, please drop them off at the registration desk.

Foraging Strategy

Venture forth! Portland is your oyster (or herb-crusted-polenta-&-chevre bocadito, as the case may be). Your registration packet includes maps and some tips about what lies within walking distance; also try consulting Yelp or Urban Spoon. A few suggestions (all very close by):

- **Habibi** (Lebanese) at 1012 SW Morrison St. or 221 SW Pine St.
- **Shigezo** (Izakaya Japanese) at 910 SW Salmon St.
- **Food carts:** Portland is loaded with tiny, portable take-out places serving every sort of food you can imagine at reasonable prices. Check out the "pods" of these carts at SW Alder between 9th and 11th and along 5th between Stark and Oak.

- **Hilton** has two nice restaurants/bars on the premises: Bistro 921 (Pacific Northwest; off the main lobby) and Porto Terra (Italian; in the Executive Tower). Both serve breakfast, too.

Breaks

The morning and afternoon breaks during the scientific session will include coffee, tea, juice, and light snacks for registered attendees.

Field trips

We have three field trips this year. If you have purchased a field trip ticket, you will have received information by email about what to wear and bring on the pelagic and Sauvie Island birding trips (no special attire or equipment required for beer-tasting), and where to meet at the appointed hour on Sunday. This information will be available at the registration desk as well. Additional tickets may be available; inquire at the registration desk.

Student presentation judges

Several PSG members have volunteered to judge student oral and poster presentations for awards to be given at the Awards Ceremony after the Banquet on Friday evening. At the beginning of the conference, judges will meet to be assigned student talks and posters to view. After all the student presentations have been given, judges will again meet to deliberate. The time and location of each meeting will be announced and posted at the message board next to the registration desk.

Special paper sessions

Marbled Murrelets, From Seas to Trees - New Science on Ecology and Management of Marbled Murrelets Convener: Gary Falxa

The Pacific Seabird Group has been a leader in the conservation of the Marbled Murrelet (*Brachyramphus marmoratus*) since the early 1980's, and held the first Marbled Murrelet symposium in 1987. An ongoing conservation concern has been the large-scale loss of the old-growth forests in which the species nests across most of its range. Gillnets and oil spills have also posed risks to the species, as may changes in prey communities. As a result of these threats and population declines, the species has been listed as "threatened" both in Canada and in the United States south of Alaska. In this special paper session, presentations will focus on new knowledge about the species. Following the plenary talk on the state of Marbled Murrelet science and conservation, speakers in the session will provide up-to-date results from research and conservation work from Alaska to northern California. Topics span both terrestrial and marine habitats, and diverse aspects of murrelet biology, conservation status, and management. Several presentations discuss new monitoring and research tools, and initial efforts to actively enhance forest habitat for murrelets. The session will wrap up with presentations on the perspectives from the conservation community, and a recent evaluation

of the species' status and conservation needs at the southern end of its range in California, Oregon, and Washington.

Seabirds and Marine Spatial Planning Convener: Jo Smith

Marine spatial planning (MSP) is a public process to analyse and allocate the spatial and temporal distribution of human activities in a practical way, balancing the demands for development with protecting the marine environment. Marine spatial planning is usually specified through a political process to achieve multiple objectives and address ecological, economic and social values. Marine spatial planning is a well-described process that requires excellent spatial data sources for marine species, habitats and human activities. While the steps for MSP look great on paper, actual processes span years, if not decades, and a marine ornithologist's exposure to the full process is rare. Participation by scientists in MSP may be infrequent or disconnected from the governing authority, yet the desire to collect and contribute relevant data remains strong.

In this special paper session, presentations from marine policy experts and scientists will provide concrete examples for most of the steps in a marine spatial planning process. Speakers will begin the session by introducing the authority and need for spatial planning in the USA, Canada, and North Sea. Scientists will then use field studies, models, and innovative techniques to define and analyse current conditions, resolve spatial conflicts with human uses, discuss predictive approaches for future conditions, address monitoring issues, and develop marine bird indicators. With research from Japan to the Atlantic, and the Arctic to South America, this special paper session will increase understanding of MSP and the role that seabird biologists can play in ensuring high quality data are used to inform marine planning decisions.

Plenary speakers



Zach Peery received a B.Sc. from the University of California, San Diego in 1993, a M.Sc. in Wildlife Biology from Humboldt State University in 1996, and Ph.D. from the University of California, Berkeley in 2004. His Master's research involved studying the demography and habitat associations of Spotted Owls in the Southwestern United States. His Ph.D. research involved studying both the terrestrial and marine ecology of Marbled Murrelets in central California. This research involved a combination of radio-telemetry and mark-recapture methods to identify and monitor nests, estimate population trends, and understand demographic and environmental factors limiting the population. Following his PhD studies, Dr. Peery held joint post-doctoral research positions at the Museum of

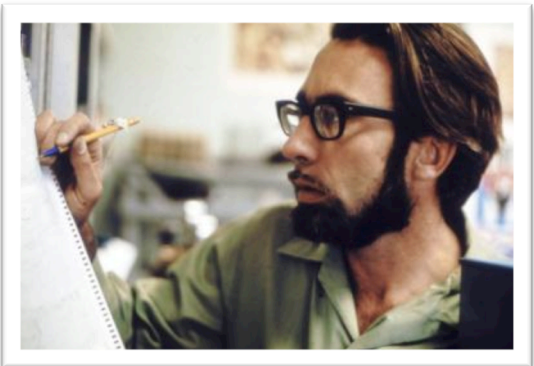
Vertebrate Zoology at UC Berkeley and Moss Landing Marine Laboratories from 2005 to 2008. During this time, he used genetic tools to characterize historic changes in connectivity among murrelet populations and understand factors influencing dispersal. In 2008, Dr. Peery joined

the faculty of the Department of Forest and Wildlife Ecology at the University of Wisconsin-Madison. At UW-Madison, his primary research interests include the study of endangered species and the development and integration of methods in demography and conservation genetics. He continues his population and genetic studies of marbled murrelets, and has initiated a study of Steller's Jays investigating the scale at which human-derived foods subsidize jay population and threaten Marbled Murrelets. He is also the principal investigator of a long-term demographic study of California Spotted Owls in the central Sierra Nevada, an NSF-funded study of the behavioral ecology of two- and three-toed sloths in Costa Rica, and freshwater turtles in Wisconsin. His teaching responsibilities at UW-Madison include a large undergraduate course titled *Extinction of Species* that covers biological and social issues responsible for the current biodiversity crisis, as well as graduate courses titled *Demographic Methods* and *Conservation Genetics*.



Dan Roby is the Unit Leader – Wildlife at the U.S. Geological Survey - Oregon Cooperative Fish and Wildlife Research Unit and Professor of Wildlife Ecology in the Department of Fisheries and Wildlife at Oregon State University. He received a B.A. (Biology) from Antioch College in 1974, a M.S. (Wildlife Management) from the University of Alaska Fairbanks in 1978, and a Ph.D. (Biology) from the University of Pennsylvania in 1986, where he worked under Professor Robert E. Ricklefs on the relationship of

diet to reproductive energetics in seabirds. In addition to his current position at Oregon State University, he has held faculty positions at Southern Illinois University – Carbondale (Assistant Professor of Zoology, 1988-1992) and the University of Alaska Fairbanks (Assistant Professor of Wildlife Ecology, 1992-1995). Dan has conducted research on the ecology of seabirds in Alaska, Hawaii, Greenland, Newfoundland, South Georgia, and Antarctica, as well as throughout the Pacific Northwest region of the U.S. His primary area of research interest is the physiological ecology and conservation biology of birds, with an emphasis on seabirds. His recent research includes impacts of avian predation on recovery of ESA-listed salmonids in the Columbia River Basin, effects of the Exxon Valdez oil spill on seabirds in Alaska, seabird/fisheries interactions, and effects of global climate change on seabird populations at high latitudes. He served as Chair of the Pacific Seabird Group during 2005-2006 and was elected a Fellow of the American Ornithologists' Union in 2008.



Bob Risebrough I grew up in southern Ontario, part bird-watcher, part academic nerd. I shed the academic nerd part, at least temporarily, by not finishing high school in order to follow the spring migration at Long Point and Point Pelee on the Lake Erie shoreline. I then hitchhiked to Michigan to see Kirtland's warblers, to Bonaventure Island for the first seabirds, and on to Nova Scotia. There, however, I signed an application to Cornell that my

mother had sent me. At that time Cornell had a don't ask – don't tell policy on high school diplomas.

At Cornell a friendship developed with Walter Bock that introduced me to the publications of Ernst Mayr, and that included many long discussions about evolution and a summer internship at the American Museum of Natural History. Interest in evolution broadened to include genetics and, in a graduate program at Harvard with Jim Watson, molecular biology. Those were exciting times – the discovery of messenger RNA. From Jim I learned to appreciate the beauty in, and respect for, the integrity of a scientific argument. He was disappointed when I did not go on to a post-doc and an academic career but instead drove off to South America in my Land Rover to spend six months on the Galapagos. But his influence remains deeply appreciated.

There were two expeditions of the Woods Hole Oceanographic Institution to the Indian Ocean on the R.V. Atlantis and the R.V. Atlantis II. The first stop was Bermuda, where David Wingate was beginning his program to rescue the Bermuda Petrel from extinction. Identification of the seabirds was the preoccupation during those many months at sea.

To return to Ecuador I needed some money. Berkeley seemed to be the place to earn some. By sheer chance, and sheer luck, I heard about a position at the University of California that required collection of marine fish and their analysis for DDT. Three years after *Silent Spring*, it was an opportunity for a conservation-oriented career. The fish from the Los Angeles area had much more DDT than the fish from anywhere else. I took advantage of the facilities to begin the analysis of seabird tissues. Highest DDE concentrations were in the breast muscle of a brown pelican. But sooty shearwaters and a short-tailed shearwater were also highly contaminated.

A period of scientific activism followed with the Environmental Defense Fund to end DDT use in the USA at hearings in Wisconsin and Washington, and meetings, conferences, lectures and testimony about the PCBs. All supported by scientific data generated in the lab. A rewarding time.

After 35 years in a research position at the University of California, I continue to work through the Bodega Bay Institute, a non-profit corporation. What next? Efforts to: 1) reduce the use of lead ammunition that kills California Condors when they feed on carcasses shot by hunters but not retrieved; and 2) clear Rachel Carson and organizations such as the Environmental Defense Fund of all those charges of "genocide".

Lifetime Achievement Award: Malcolm Coulter



The Pacific Seabird Group's Lifetime Achievement Award is presented posthumously to long-time member Malcolm Coulter, who passed away on January 2, 2013. Malcolm was born with a love of nature, nurturing garter snakes and having imaginary animal jungle friends. He discovered birds and ultimately studied seabirds on four continents. Malcolm graduated from Stanford University where he conducted research under Paul Ehrlich and Peter Raven. He received post-graduate degrees from Oxford University (Edward Grey Institute of Field Ornithology under Chris Perrins) and the University of Pennsylvania (under Robert Ricklefs). His Ph.D. dissertation was on the breeding biology and behavior of Western Gulls on the Farallons. During that era Malcolm helped to establish the

Farallon Biological Station and mapped its vegetation which he continued to monitor for 30 years.

From 1981 - 1983, Malcolm was the resident ornithologist at the Charles Darwin Research Station where he was instrumental in saving the Galapagos Petrel from extinction by training and inspiring local biologists to protect it. Felipe Cruz will graciously display Malcolm's award in the Charles Darwin Research Station to inspire others to conserve seabirds. Malcolm directed a wood stork research program for the Savanna River Ecology Lab from 1984 - 1992, branching out from seabirds into waterbirds. He was a co-chair of the IUCN Committee on Storks, Ibis, and Spoonbills and from 1992 until his death, traveled the world supporting bird conservation actions. He was the lead scientist in SAVE International's battles to bring the Black-faced Spoonbill in Asia back from the brink of extinction, from a low of several hundred spoonbills to almost 2,700 birds in 2012. Malcolm authored about 60 scientific publications.

Long a dedicated member of PSG, Malcolm served as editor of the Pacific Seabird Bulletin (1985-1991), Chair (1991); investing trustee of the Endowment Fund (1996 - 2013), delegate to the American Bird Conservancy (1995 - 2010), member of the small conservation grants committee (2007 - 2013) and founder of the Corresponding Member Committee. Malcolm dedicated his career to bringing biologists together to conserve birds and has been recognized numerous times for his achievements. Among these are PSG (Special Achievement Award, 2000), SAVE International (2002 and 2007), Korean Federation for Environmental Movements (2006), Linnaean Society of New York (2008) and PRBO Conservation Science (2012). Malcolm was a shy, quiet man whose love for animals included White Dog, a stray who became his beloved companion for 17 years. He was full of love for the natural world and affection for his friends with whom he could share a laugh at the absurdity of life.

Schedule-at-a-Glance

Tuesday, February 19th		
1300-1700	PSG EXCO Training	Council Suite (3rd Floor)
Wednesday February 20: Committee Meetings		
TIME	Committee	Location
900-1700	Marbled Murrelet Technical Committee	Broadway III/IV
	3rd Floor Conference Rooms:	
900-1700	Pacific Seabird Group Executive Council	Forum Suite
900-1200	Kittlitz's Murrelet Technical Committee	Council Suite
900-1200	Xantus' Murrelet Technical Committee	Executive Suite
900-1200	Seabird Monitoring Committee	Senate Suite
1200-1300	PSG Executive Council Members' Lunch	Cabinet Suite
1900-2100	Welcome Reception - Pavilion	
NOTE: Posters may be set up in Broadway I/II beginning on Wednesday morning, February 20		
Thursday, February 21, 2012		
	Silent Auction & Posters - Broadway I/II	
TIME	Pavilion East	Pavilion West
800-830	Introduction, program updates	
830-930	PLENARY: Current status and future directions of Marbled Murrelet science and conservation - Zach Peery	
930-1000	Coffee Break	
1000-1200	Marbled Murrelet Special Paper Session	Conservation
1200-1330	Lunch on your own	
1330-1500	Marbled Murrelet Special Paper Session	Conservation
1500-1530	Coffee Break	
1515-1700	North Pacific Albatross Working Group - Forum Suite (3rd Floor)	
1530-1700	Marbled Murrelet Special Paper Session	Conservation and Databases
1830-2130	Poster Session & Reception - Plaza Foyer & Broadway I/II	
Friday, February 22		
	Silent Auction & Posters - Broadway I/II	
TIME	Pavilion East	Pavilion West
815-830	Program Updates	
830-930	PLENARY: An interesting tern of events: Learning from caspian terns and other salmon-eating waterbirds about what matters most for coastal colonial seabirds - Daniel Roby et al.	
930-1000	Coffee Break	
1000-1145	Seabirds and Marine Spatial Planning Special Paper Session	Breeding Biology
1145-1330	Lunch on your own	
1200-1330	Conservation Committee - Broadway III/IV	

Schedule-at-a-Glance (continued)

Friday, February 22 (continued)		
1330-1500	Seabirds and Marine Spatial Planning Special Paper Session	Breeding Biology
1500-1530	Coffee Break	
1530-1700	Marine Spatial Planning and At-Sea Distribution	Breeding Biology
1700-1900	Japanese Seabird Conservation Committee - Forum Suite (3rd Floor)	
1730-1830		PSG Business Meeting
1830-2000	Student-Professional Mentor Session - Broadway III/IV	
1830-2100	Student Happy Hour - Plaza Foyer	
Saturday, February 23		
	Silent Auction & Posters - Broadway I/II	
TIME	Pavilion East	Pavilion West
815-830	Program Updates	
830-930	Plenary: Contaminants in seabirds: past, current, and future research and conservation priorities - Robert Risebrough	
930-1000	Coffee Break	
945	Silent Auction Ends - Broadway I/II	
1000-1145	Conservation Toxicology - Contaminants - Hazards	Foraging Ecology
1145-1315	Lunch on your own	
1200-1400	Posters Come Down - Broadway I/II	
1315-1500	Techniques	Foraging Ecology
1500-1530	Coffee Break	
1530-1700	Climate Change and Changing Seascape (until 16:30)	Bycatch and Seabirds at Sea
1800-1900	Banquet Reception - Plaza Foyer	
1900-2100	Banquet & Awards - Pavilion	
2100-2400	Dance Party - Pavilion Happy 40th, PSG!	
All Day	Sunday, February 24 - FIELD TRIPS	

ORAL PRESENTATIONS (* denotes presenter, + denotes student presentation)

ABSTRACTS may be downloaded here: <http://www.pacificseabirdgroup.org/2013mtg/PSG2013.Abstracts.pdf>

Several hard copies are available for viewing at the Registration Desk.

Thursday 21 February		
Time	Pavilion East	Pavilion West
800	<i>Introduction, Program Updates</i>	
830	PLENARY: CURRENT STATUS AND FUTURE DIRECTIONS OF MARBLED MURRELET SCIENCE AND CONSERVATION - Zach Peery	
930-1000	<i>Coffee Break</i>	
	<i>Marbled Murrelets From to Seas to Trees - Gary Falxa</i>	<i>Conservation - Island Restoration - Mark Rauzon</i>
1000	CONSERVATION OF THE MARBLED MURRELET AND THE PACIFIC SEABIRD GROUP: HOW IT STARTED - Spencer G. Sealy*, Lora L. Leschner, Harry R. Carter, S. Kim Nelson, and Steven M. Speich	THE RESTORATION OF A SHORT-TAILED ALBATROSS COLONY ON MUKOJIMA, OGASAWARA ISLANDS GROUP - Tomohiro Deguchi*, Judy Jacobs, Fumio Sato, Robert Suryan, Lyndon Perriman, Noboru Nakamura, Shiro Kagawa, Greg Balogh and Kiyoaki Ozaki
1015	THE MURRELET IN WINTER – A REVIEW OF MARBLED MURRELET POST-BREEDING DISTRIBUTION WITH A FOCUS ON ALASKA - Kathy J. Kuletz*, Elizabeth A. Labunski, Martin Renner, and Mary Anne Bishop	POST-FLEDGING SURVIVAL, BEHAVIOR, AND MIGRATION OF HAND- VS. NATURALLY-REARED SHORT-TAILED ALBATROSSES - Robert M. Suryan*, Kiyoaki Ozaki, Fumio Sato, Tomohiro Deguchi, Noboru Nakamura, and Gregory R. Balogh
1030	DECADAL DECLINES IN MID-SUMMER ABUNDANCE OF BRACHYRAMPHUS MURRELETS IN PRINCE WILLIAM SOUND, ALASKA - Daniel A. Cushing*+, Daniel D. Roby, Kathy J. Kuletz, and David B. Irons	ALCID BREEDING HABITAT RESTORATION ON SANTA BARBARA ISLAND, CALIFORNIA - A. Laurie Harvey*, Sasha A. Auer, Kevin W. Barnes, David M. Mazurkiewicz, Sarah K. Thomsen, Andrew A. Yamagiwa, Marie-Eve Jacques, Renée E. Robison, Kris M. Robison, and Frank Gress
1045	RISKS TO TOP-LEVEL PREDATORS REVEAL COMMUNITY-LEVEL CHANGE IN A MARINE ECOSYSTEM - Nacho Vilchis*, Christine K. Johnson, Scott Pearson, Joe Evenson, Peter Davidson, Karen Barry, Marty Raphael, and Joe Gaydos	STATUS OF BREEDING SEABIRDS ON ANACAPA ISLAND, CALIFORNIA, IN 2011-2012 - A. Laurie Harvey*, David M. Mazurkiewicz, Matthew McKown, Mike W. Parker, Franklin Gress, Kevin W. Barnes, and Sasha A. Auer
1100	MARINE MICRO-HABITAT SELECTION BY FLEDGLING AND OLDER MARBLED MURRELETS IN OREGON AND NORTHERN CALIFORNIA COASTAL WATERS: WHERE ARE THE KIDS? - Craig S. Strong	SEABIRDS AND SHOREBIRDS OF SWAINS ISLAND, AMERICAN SAMOA - Andrew J. Titmus*+, N. Suzanne Dauphine, and Christopher A. Lepczyk
1115	RECENT RESEARCH AND ADVANCES IN RADAR TECHNOLOGY FOR THE STUDY OF MARBLED MURRELETS - Brian A. Cooper	FIVE YEARS OF SEABIRD RESTORATION ON ASUNCIÓN AND SAN ROQUE ISLANDS, OFF THE BAJA CALIFORNIA PENINSULA, MEXICO - María Félix-Lizárraga*, Alfonso Aguirre-Muñoz, Marlenne Rodríguez-Malagón, Karina Ramos-Rendón, Mariam Lafoski-Robles, Ana Cárdenas-Tapia, José Barredo-Barberena, Ana Marichal-González, Federico Méndez-Sánchez, Leonardo de la Rosa-Conroy, Humberto Berlanga-García, and Eduardo Íñigo-Elías
1130	NEW APPLICATIONS OF RADAR AND ACOUSTIC RECORDINGS FOR MONITORING BRACHYRAMPHUS MURRELETS - Jenna L. Cragg*+, Alan E. Burger, Robin M. Corcoran, and John F. Piatt	WAKE ATOLL ECOLOGICAL RESPONSES 8 YEARS AFTER CAT ERADICATION - Mark J. Rauzon* and Elizabeth Flint
1145	TEMPORAL TRENDS IN MARBLED MURRELET ABUNDANCE IN CANADA (1996-2011) BASED ON RADAR COUNTS - Doug Bertram*, M.C. Drever, B.K. Schroeder, D.J. Lindsay, and D. Faust	PREVENTING ISLAND EXTINCTIONS: KNOWLEDGE PRODUCTS IN SUPPORT OF INVASIVE VERTEBRATE REMOVAL FROM ISLANDS - Nick D. Holmes*, Brad Keitt, Dena Spatz, Kelly Newton, Don Croll, Bernie Tershy, Shyama Pagad and Stuart Butchart
1200 -1330	<i>Lunch</i>	

Thursday 21 February (continued)

Time	<i>Marbled Murrelets From to Seas to Trees (Cont.) - Kim Flotlin</i>	<i>Conservation - Beth Flint</i>
1330	RADAR STUDIES OF INLAND ACTIVITY PATTERNS OF THE MARBLED MURRELET ACROSS THE ANNUAL CYCLE IN NORTHERN CALIFORNIA - Peter M. Sanzenbacher*, Brian A. Cooper, and James Bond	IMPROVING BURROWING SEABIRD HABITAT WITH NATIVE PLANT RESTORATION AND SEA LION EXCLUSION: RESULTS FROM AÑO NUEVO ISLAND, CALIFORNIA - Ryan Carle*+, Michelle Hester, Jessie Beck, David Calleri, Dave Sands, and Matthew Passmore
1345	MODELING MARBLED MURRELET HABITAT USING LIDAR-DERIVED CANOPY DATA - Joan C. Hagar*, Bianca N.I. Eskelson, Patti Haggerty, S. Kim Nelson, David Vesely	USING ARTIFICIAL ISLANDS AND SOCIAL ATTRACTION TO ESTABLISH NEW CASPIAN TERN COLONIES IN THE UPPER KLAMATH BASIN, CALIFORNIA - Allison Patterson*+, Daniel D. Roby, Donald E. Lyons, and Ken Collis
1400	MARBLED MURRELET NEST-SITE CHARACTERISTICS IN ALASKA - S. Kim Nelson*, Michelle L. Kissling, Gus van Vliet, and Kathy J. Kuletz	CONSERVATION AND PUBLIC EDUCATION OF THE JAPANESE MURRELET (SYNTHLIBORAMPHUS WUMIZUSUME) AT BIROJIMA AND KADOGAWA-CHO, MIYAZAKI-KEN, JAPAN - Kuniko Otsuki * and Reiko Kubota
1415	CHARACTERIZING THE FORAGING AND POPULATION ECOLOGY OF STELLER'S JAYS IN REDWOOD FORESTS: IMPLICATIONS FOR THE CONSERVATION OF MARBLED MURRELETS - Elena Doucet-Beer*+ and M. Zach Peery	ENGAGING LOCAL COMMUNITIES TO ADVANCE SEABIRD CONSERVATION: CASE STUDY OF A THREATENED CHILEAN ENDEMIC - Valentina Colodro*, Peter Hodum and Verónica López
1430	EXPERIMENTAL ASSESSMENT OF TASTE AVERSION CONDITIONING ON STELLER'S JAYS TO PROVIDE SHORT-TERM REDUCTION IN EGG-PREDATION RISK FOR MARBLED MURRELETS IN NORTHERN CALIFORNIA - Pia O. Gabriel and Richard T. Golightly*	A BIOGEOGRAPHICAL ANALYSIS OF EXTIRPATION AND ENDANGERMENT ON SEABIRD BREEDING ISLANDS - Dena Spatz*+, Kelly Newton, Don Croll, Bernie Tershy, Nick Holmes, and Stuart Butchart
1445	SPACE USE AND BEHAVIOR OF STELLER'S JAY IN CAMPGROUND AND NON-CAMPGROUND SITES WITHIN REDWOOD NATIONAL AND STATE PARKS - Will Goldenberg*+, T. Luke George and Jeffrey M. Black	HUMAN DISTURBANCE TO COMMON MURRE (URIA AALGE) BREEDING COLONIES ON THE CENTRAL CALIFORNIA COAST - Allison R. Fuller*, Gerard J. McChesney, Richard T. Golightly, Lisa E. Eigner, Sandra J. Rhoades, and Sage Tezak
1500-1530	<i>Coffee Break</i>	
1515-1700	North Pacific Albatross Working Group - Forum Suite (3rd Floor)	
	<i>Marbled Murrelets From to Seas to Trees (Cont.) Gary Falxa</i>	<i>Conservation and Databases - Jennifer Boyce</i>
1530	ASSESSMENT OF THE EFFECTS OF ANTHROPOGENIC IMPULSIVE SOUND ON THE MARBLED MURRELET IN THE MARINE ENVIRONMENT - Emily J. Teachout	REEVALUATING THE CONSERVATION STATUS OF DE FILIPPI'S PETREL, A POORLY KNOWN CHILEAN ENDEMIC - Peter Hodum*, Paola González, and Christian López
1545	CAN CHAINSAWS BE A GOOD SOUND FOR MARBLED MURRELETS? - Tom Kollasch*, Kyle Smith, Liane Davis, and William Ritchie	TAKING A TERN FOR THE WORSE? WHEN DO WE RAISE A RED FLAG FOR O. ALEUTICUS? - Heather M. Renner*, Marc Romano, and Nora Rojek
1600	MARINE AND TERRESTRIAL INFLUENCES ON SPATIAL AND TEMPORAL DISTRIBUTION OF THE MARBLED MURRELET IN THE PACIFIC NORTHWEST - Martin G. Raphael*, Andrew Shirk, Gary A. Falxa, Thomas Bloxton, Jr., Monique Lance, Deanna Lynch, Sherri Miller, S. Kim Nelson, Scott F. Pearson, and Craig Strong	BASELINES AND WRECKS: DEFINING WHAT'S NORMAL - Julia K. Parrish*, Jane Dolliver, Charlie Wright, and Elizabeth Mack
1615	MARBLED MURRELET PROTECTION UNDER THE ENDANGERED SPECIES ACT - Shay G. Wolf* and Kristen L. Boyles	SEABIRD INFORMATION NETWORK: A PARTNERSHIP TO ARCHIVE AND VISUALIZE NORTH PACIFIC SEABIRD DATA - Robb Kaler*, David Irons, and Nora Rojek
1630	MARBLED MURRELET CONSERVATION EFFORTS: TOO LITTLE BUT NOT TOO LATE - Paul Engelmeyer* and Shay G. Wolf	THE IMPORTANCE OF SEABIRD COLONY DATABASES IN SEABIRD MANAGEMENT, RESEARCH, DAMAGE ASSESSMENT AND CONSERVATION - George J. Divoky
1645	MARBLED MURRELET RECOVERY IMPLEMENTATION TEAM MEETING AND STAKEHOLDER WORKSHOP REPORT - Deanna Lynch*, Lena Chang, Gary Falxa, Kim Flotlin, Kevin Maurice, Lynn Roberts, Emily Teachout, and Bridgette Tuerler	BROWN PELICAN MORTALITY PATTERNS IN THE U.S. PACIFIC NORTHWEST - Deborah L. Jaques* and Sharnelle Fee
1830-2130	<i>Poster Session & Reception - Broadway I/II & Plaza Foyer</i>	

Friday 22 February		
	Pavilion East	Pavilion West
815	Program Updates	
830	PLENARY: AN INTERESTING TERN OF EVENTS: LEARNING FROM CASPIAN TERNS AND OTHER SALMON-EATING WATERBIRDS ABOUT WHAT MATTERS MOST FOR COASTAL COLONIAL SEABIRDS - Daniel D. Roby*, Donald E. Lyons, Ken Collis, Yasuko Suzuki, Allen F. Evans, Jessica Y. Adkins, Peter J. Loschl, Timothy J. Lawes, Kirsten S. Bixler, Allison Patterson, and Stefanie Collar	
930-1000	Coffee Break	
	Seabirds And Marine Spatial Planning - Jo Smith	Breeding Biology -Dan Anderson
1000	MARINE SPATIAL PLANNING IN THE US: FROM NATIONAL POLICY TO LOCAL PLANNING - Jena Carter	LONG-TERM VARIABILITY IN NESTING EFFORT AND REPRODUCTION OF THE CALIFORNIA BROWN PELICAN IN THE GULF OF CALIFORNIA: A FOUR-DECADE PERSPECTIVE - Daniel W. Anderson
1015	MARINE SPATIAL PLANNING FOR THE NORTH PACIFIC COAST OF CANADA - Steve Diggon, John Bones, Charlie Short, Matthew Justice and Joanna Smith*	SEA-SURFACE TEMPERATURE AFFECTS BREEDING DENSITY OF AN AVIAN ROCKY INTERTIDAL PREDATOR, THE BLACK OYSTERCATCHER - Mark Hipfner* and Bob Elnor
1030	SEABIRDS AND MARINE SPATIAL PLANNING: A NORTH SEA PERSPECTIVE - Stefan Garthe*, Bettina Mendel, and Philipp Schwemmer	NEST-HABITAT PARTITIONING AND SHARING AMONG BURROW-NESTING SEABIRD SPECIES ON RECENTLY RAT-FREE ISLANDS IN NEW ZEALAND - Rachel T. Buxton*+, Christopher J. Jones, and Philip O'B. Lyver
1045	SPATIAL ASSOCIATION AMONG ROSEATE AND COMMON TERNS, TUNAS AND CETACEANS IN THE NW ATLANTIC OCEAN - Holly F. Goyert, Lisa L. Manne, and Richard R. Veit*	CHANGES IN NEST AND INCUBATION TEMPERATURE OF CASSIN'S AUKLETS IN ARTIFICIAL NEST BOXES, SOUTHEAST FARALLON ISLAND - Emma C. Kelsey*+, Russell Bradley, Pete Warzybok, Jaime Jahncke, and Scott A. Shaffer
1100	HOTSPOTS OF SEABIRD AGGREGATIONS DURING SUMMER IN THE WESTERN NORTH PACIFIC - Bungo Nishizawa*+, Yutaka Watanuki, Sei-Ichi Saitoh, Daisuke Ochi, Yukiko Inoue, Sayaka Nakatsuka, Hiroshi Minami, and Kotaro Yokawa	EGG-LAYING BEHAVIOR IN GLAUCOUS-WINGED GULLS - Gordon Atkins*, Amanda Sandler, Mindy McLarty, Melissa McCormick, Shandelle Henson, and James Hayward
1115	FILLING THE VOID: USING SUPER HIGH-DEFINITION VIDEOGRAPHY TO GATHER BROAD-SCALE BASELINE DATA ON MARINE WILDLIFE - Iain J. Stenhouse*, Kathryn A. Williams, and Andy Webb	THE PERILS OF PERSISTENCE: PATTERNS OF DECLINE AT THE WORLD'S LARGEST CASPIAN TERN COLONY - Stefanie Collar*+, Daniel D. Roby, and Donald E. Lyons
1130	IMPORTANT MARINE HABITAT AREAS FOR MIGRATORY BIRDS IN EASTERN CANADA - Karel Allard*, Carina Gjerdrum, and Sabina Wilhelm	LIVING AT THE EDGE: COMMON MURRES AT CASTLE ROCK NATIONAL WILDLIFE REFUGE - Stephanie R. Schneider* and Richard T. Golightly
1145 -1330	Lunch	
1200-1330	PSG Conservation Committee - Broadway III/IV	

Friday 22 February (continued)

Time	<i>Seabirds And Marine Spatial Planning - Jo Smith</i>	<i>Breeding Biology - Lindsay Young</i>
1330	HOW MANY SEABIRDS DO WE NEED TO TRACK TO DEFINE HOME-RANGE AREA? Louise M. Soanes*+, John P.Y. Arnould, Stephen G. Dodd, Michael D. Sumner, and Jonathan A. Green	TEMPORAL AND ENVIRONMENTAL EFFECTS ON THE BEHAVIOR OF FLIGHTLESS CORMORANTS - James L. Hayward, Libby C. Megna, Brianna G. Payne, Susana R. Velastegui Chávez, and Shandelle M. Henson*
1345	SEASONAL VARIATION IN THE CROSS-SHELF DISTRIBUTION OF SEABIRDS IN THE SOUTHEASTERN BERING SEA - George L. Hunt, Jr.*+, Martin Renner, and Kathy Kuletz	HOW THE BREEDING ECOLOGY OF KITTLITZ'S MURRELET MAKES SENSE (SOMETIMES): THE BENEFITS OF HIGH-QUALITY FORAGE AND RAPID CHICK GROWTH ON NEST SURVIVAL AND ADULT FITNESS - James Lawonn*+, Daniel D. Roby, John F. Piatt, William H. Pyle, and Robin R. Corcoran
1400	SPATIAL ECOLOGY OF KRILL, MICRONEKTON AND TOP PREDATORS IN THE CENTRAL CALIFORNIA CURRENT: IMPLICATIONS FOR DEFINING ECOLOGICALLY IMPORTANT AREAS - Jarrod A. Santora*, John C. Field, Isaac D. Schroeder, Keith M. Sakuma, Brian K. Wells, William J. Sydeman	EGG CANNIBALISM IN GULLS INCREASES WITH SEA SURFACE TEMPERATURE - James L. Hayward*, Lynelle M. Weldon, Shandelle M. Henson, Libby C. Megna, Andre E. Moncrieff, and Brianna G. Payne
1415	MAPPING IMPORTANT AREAS FOR SEABIRDS: HOW TO DRAW THE BOUNDARY LINE Melanie A. Smith*, Nathan J. Walker, Matthew J. Kirchhoff, and Christopher M. Free	CASUES AND CONSEQUENCES OF MATE CHOICE PLASTICITY: IS SAME-SEX PAIRING IN LAYSAN ALBATROSS MAKING THE 'BEST OF A BAD JOB'? - Lindsay C. Young* and Eric A. VanderWerf
1430	MODELLING FORAGING RANGE FOR BREEDING COLONIES OF THICK-BILLED MURRES URIA LOMVIA Anthony J. Gaston*, Kyle H. Elliott, Yan Ropert-Coudert, Akiko Kato, Christie MacDonald, and H. Grant Gilchrist	INVESTIGATIONS ON WINTER CARRYOVER EFFECTS AND ONSET OF BREEDING IN RHINOCEROS AUKLETS (CERORHINCA MONOCERATA) - Jean-Baptiste Thiebot*, Akinori Takahashi, Motohiro Ito, Yuya Suzuki and Yutaka Watanuki
1445	RECENT ADVANCES IN PROTECTING THE SEABIRD FORAGE BASE IN THE SOUTHERN CALIFORNIA CURRENT - Anna Weinstein*, Geoff Shester, Myra Finkelstein, and Brad Keitt	INCUBATE OR EAT: PATTERNS IN DIFFERENTIAL NEST ATTENTIVENESS BY RED-NECKED PHALAROPES - Willow B. English*+, Brett K. Sandercock, and David B. Lank
1500-1530	<i>Coffee Break</i>	

Friday 22 February (continued)

	<i>Seabirds And Marine Spatial Planning - Jo Smith</i>	<i>Breeding Biology - Alexis Will</i>
1530	COMBINING MARINE BIRD DENSITY SURFACE MODELS USING SPATIAL CONSERVATION PRIORITIZATION SOFTWARE TO AID SITING OF OFFSHORE DEVELOPMENT - Kristopher J. Winiarski*, David L. Miller, Peter Paton, and Scott R. McWilliams	TEMPORAL CHANGES IN LIPID PLASMA METABOLITES DURING THE BREEDING SEASON OF BLUE-FOOTED BOOBIES - Miriam Lerma *+, José Alfredo Castillo-Guerrero , Guillermo Fernández, Auxiliadora Villegas, and Juan M. Sánchez-Guzmán
1545	USING AT-SEA DISTRIBUTION OF SEABIRDS TO SELECT THE AREA FOR THE PROPOSED SCOTT ISLANDS NATIONAL WILDLIFE AREA - Greg W. Jones*, Ken Morgan, and Angela Stadel	FEATHER CORTICOSTERONE AS AN INTEGRATIVE MEASURE OF NUTRITIONAL STRESS IN SEABIRDS: A 3 COLONY COMPARISON OF RHINOCEROS AUKLET CHICKS - Alexis P. Will*+, Yuya Suzuki, Kyle Elliott, Yutaka Watanuki, and Alexander S. Kitaysky
1600	CONSERVATION IMPLICATIONS OF PINK-FOOTED SHEARWATER (PUFFINUS CREATOPUS) MOVEMENTS AND FISHERY INTERACTIONS OFF SOUTH AMERICA ASSESSED USING MULTIPLE METHODS - Josh Adams*, Jeffrey C. Mangel, Joanna Alfaro-Shigueto, Peter Hodum, K. David Hyrenbach, Valentina Colodro, Paola Palavecino, Miguel Donoso, Jessica Hardesty Norris	THE INFLUENCE OF AGE, BREEDING STATUS, AND ENVIRONMENTAL VARIABILITY ON SURVIVAL OF BRANDT'S CORMORANT (PHALACROCORAX PENICILLATUS) ON SOUTHEAST FARALLON ISLAND - Annie E. Schmidt*+, Louis W. Botsford, John M. Eadie, Russell Bradley, and Jaime Jahncke
1615	PREDICTIVE MODELS OF MARINE BIRD DISTRIBUTION AS A SPATIAL PLANNING TOOL: A CASE STUDY IN THE U.S. MID-ATLANTIC - Brian P. Kinlan*, Robert Rankin, and Chris Caldwell	STATUS OF THE BREEDING POPULATION OF BRANDT'S CORMORANTS (PHALACROCORAX PENICILLATUS) IN CENTRAL CALIFORNIA Gerard J. McChesney*, Phillip J. Capitolo, Harry R. Carter, Michael W. Parker, Richard T. Golightly, Sandra J. Rhoades, Crystal A. Bechaver, Russell W. Bradley, and Pete Warzybok
1630	WINTERING AREA OF STREAKED SHEARWATERS AND MERCURY IN THEIR TAIL-FEATHERS: OCEANIC SCALE MONITORING OF MARINE POLLUTION - Yutaka Watanuki*, Ai Yamashita, Mayumi Ishizuka, Yoshinori Ikenaka, Shouta M.M. Nakayama, Chihiro Ishii, Takashi Yamamoto, Motohiro Ito, and Tomohiro Kuwae	SET-BACK DISTANCES TO PROTECT NESTING AND ROOSTING SEABIRDS ON VANCOUVER ISLAND FROM BOAT DISTURBANCE - Trudy A. Chatwin*, Ruth Joy and Alan E. Burger
1645	TAKING THE PULSE OF PUGET SOUND: DEVELOPING A MARINE BIRD INDICATOR FOR ASSESSING ECOSYSTEM HEALTH - Scott F. Pearson and Nathalie Hamel*	ACTIVE-SPECIFIC METABOLIC RATE AND ENERGY BUDGET DURING FORAGING TRIP IN STREAKED SHEARWATER CALONECTRIS LEUCOMELAS - Masaki Shirai*+, Maki Yamamoto, Ken Yoda, and Yasuaki Niizuma

Saturday 23 February		
Time	Pavilion East	Pavilion West
815	<i>Program Updates</i>	
830	PLENARY: CONTAMINANTS IN SEABIRDS: PAST, CURRENT, AND FUTURE RESEARCH AND CONSERVATION PRIORITIES Robert Risebrough	
930-1000	<i>Coffee Break</i>	
	<i>Conservation Toxicology - Contaminants - Hazards - Stacy S. Vander Pol</i>	<i>Foraging Ecology - Scott Shaffer</i>
1000	PATTERNS OF AT-SEA ANTHROPOGENIC THREATS TO SEABIRDS IN THE NORTH PACIFIC: A COMPARISON OF LAYSAN ALBATROSS (PHOEBASTRIA IMMUTABILIS) AND SOOTY SHEARWATER (PUFFINUS GRISEUS) - R. Cotton Rockwood*+, and Lisa T. Balance	EFFECTS OF INTER-ANNUAL VARIABILITY IN THE TRANSITION ZONE CHLOROPHYLL FRONT ON THE HABITAT USE AND REPRODUCTIVE SUCCESS OF LAYSAN AND BLACK-FOOTED ALBATROSSES - Scott A. Shaffer*, Lesley H. Thorne, Elliott L. Hazen, Steven J. Bograd, David G. Foley, Melinda G. Connors, Michelle A. Kappes, and Daniel P. Costa
1015	THE ALBATROSS ABOUT OUR NECK: THE STATE OF THE OCEANS REVEALED THROUGH THE FAMILY DIOMEDEIDAE - Stacy S. Vander Pol	SEABIRDS AS INDICATORS: PUFFIN DIETS LEND INSIGHT INTO ELUSIVE FORAGE FISH - Sarah Schoen*, John Piatt, Mayumi Arimitsu, Erica Madison, and Gary Drew
1030	IMPROVEMENTS IN OILED SEABIRD REHABILITATION - USE OF INFRARED THERMOGRAPHY - Hannah Nevins*, Stori Oates, and Colleen Young	STOCK-SPECIFIC PREDATION OF RHINOCEROS AUKLETS (CERORHINCA MONOCERATA) ON JUVENILE SALMON IN COASTAL BRITISH COLUMBIA - Strahan Tucker*, Mark Hipfner, John Candy, Collin Wallace, Terry Beacham and Marc Trudel
1045	CHRONIC (APERGILLUS) EXPOSURE AS AN UNDERLYING CAUSE OF GULL MORTALITY AT THE URBAN-WILDLIFE INTERFACE OF SAN FRANCISCO BAY, CALIFORNIA - Stori Oates, Julia Burco*, Mike Ziccardi, Laird Henkel, Asli Mete, and Melissa Miller	TEMPORAL VARIATION IN SEABIRD FORAGING WITH RESPECT TO PREY IN CATTLE PASS, SAN JUAN ISLAND, WA - Emily Runnells*+, George Hunt, and John Horne
1100	DIRTY BIRDS: UTILIZING A NOVEL ANALYTICAL APPROACH TO INVESTIGATE PERSISTENT CONTAMINANT EXPOSURE TO BLACK SKIMMERS (RYNCHOPS NIGER) IN SAN DIEGO BAY - Christopher Millow*+, Rebecca Lewison, and Eunha Hoh	THE USE OF CONSPECIFICS AS CUES TO LOCATE FOOD IN A SEABIRD FORAGING TRIP - Andréa Thiebault*+, Ralf Mullers, Pierre Pistorius, and Yann Tremblay
1115	SUBLETHAL EFFECTS OF MERCURY AND PCBS ON BREEDING LEAST TERNS (STERNULA ANTILLARUM) - Gabrielle Robinson*+, Gary Mills, Sara Schweitzer, Sonia Hernandez	MARINE PREDATOR DIETS AND VARIABLE OCEANOGRAPHIC CONDITIONS: IMPLICATIONS FOR FOOD WEB DYNAMICS AND ECOSYSTEM INDICATORS - Amanda J. Gladics*, Robert M. Suryan, Richard D. Brodeur, Leah M. Segui, and Laura Z. Filliger
1130	QUANTIFYING SEABIRD COLLISIONS WITH POWER LINES - Marc Travers*, Sam Theis, Britany Sung, and André F. Raine	FORAGING AT RESTRICTED AREAS: FORAGING SITE SELECTION OF ADELIE PENGUIN - Motohiro Ito*, Yuuki Watanabe, and Akinori Takahashi
1145-1315	<i>Lunch</i>	

Saturday, 23 February (continued)

	<i>Techniques - Matthew McKown</i>	<i>Foraging Ecology and Distribution at Sea - Stephani Zador</i>
1315	A MODEL APPROACH FOR ESTIMATING BURROW NESTING SEABIRD COLONY SIZE, TRENDS, AND HABITAT ASSOCIATIONS - Scott F. Pearson, Peter J. Hodum, Thomas P. Good, Michael Schrimpf, and Shannon M. Knapp	INDIVIDUAL SPECIALIZATION IN THE DIVING BEHAVIOUR OF A WIDESPREAD NORTH PACIFIC MARINE PREDATOR - Jana Kotzerka*, S. A. Hatch, and S. Garthe
1330	PASSIVE ACOUSTIC MONITORING OF NOCTURNAL SEABIRD POPULATIONS - COMPUTER-ANALYZED MEAN CALL RATE CORRELATES WITH ABUNDANCE AT WEDGE-TAILED SHEARWATER BREEDING COLONIES - Matthew W. McKown*, Jay Penniman, Andre Raine, Eric VanderWerf, Marie VanZandt, Lindsay Young, Abraham Borker, Bernie R. Tershy and Donald A. Croll	THREE-DIMENSIONAL SPATIAL USE OF MARINE HABITATS PROVIDES INSIGHT INTO THE CONTRASTING POPULATION TRENDS OF A DEEP-DIVING SEABIRD IN THE BERING SEA - Rosana Paredes*, David B. Irons, Daniel D. Roby, Yann Tremblay, Rebecca Young, Ann M. A. Harding, Rachael A. Orben, Robert M. Suryan, Heather Renner, Alexis Will, and Alexander Kitaysky
1345	NOT JUST NOISE: EXPLORING SOUNDSCAPES OF SEABIRD COLONIES - Abraham Borker*+, Matthew W. McKown, Josh Adams, Bernie R. Tershy, and Donald A. Croll	EFFECTS OF TIDAL CURRENTS ON MARINE BIRD DISTRIBUTION IN GLACIER BAY, ALASKA - Gary S. Drew*, David F. Hill, and John F. Piatt
1400	RESTORING COMMON TERN NESTING HABITAT USING BURNING AND WEED BARRIERS - Juliet S. Lamb*+, C. Scott Hall, Stephen W. Kress, and Curtice R. Griffin	MOVEMENT OF SHORT-TAILED SHEARWATERS WITH ENVIRONMENTAL GRADIENT IN THE SUB-ARCTIC PACIFIC AND ARCTIC SEAS THROUGH SUMMER TO AUTUMN - Takashi Yamamoto*, Kenji Hoshina, Bungo Nishizawa, Catherine E. Meathrel, Richard. A. Phillips, and Yutaka Watanuki
1415	YEAR-ROUND SPATIAL AND TEMPORAL DISTRIBUTION OF A SMALL, DIVING SEABIRD, THE CRESTED AUKLET (AETHIA CRISTATELLA), ORIGINATING FROM A BREEDING SITE AT BULDIR ISLAND, ALEUTIAN ISLANDS - Jill L. Robinson*+ and Ian L. Jones	GULL-BILLED TERN-MEDIATED INTRAGUILD PREDATION IN SAN DIEGO BAY: USING RADIO TELEMTRY AND STABLE ISOTOPE ANALYSIS TO MEASURE CRYPTIC PREDATION EVENTS - Katharine Goodenough*, and Rebecca L. Lewison
1430	BETWEEN-POPULATION VARIABILITY IN BODY SIZE AND ACOUSTIC COMMUNICATION OF WHISKERED AUKLET (AETHIA PYGMAEA) - Anna V. Klenova*, Nikolay B. Konyukhov, Alexander V. Andreev, Sergei P. Kharitonov, Victor A. Zubakin and Alexander N. Shienok	RED FLAGS OR RED HERRINGS? USING SEABIRDS IN A SUITE OF ECOSYSTEM INDICATORS TO DETECT ANOMALOUS CONDITIONS IN THE GULF OF ALASKA IN 2011 - Stephani Zador* and Heather Renner
1445	USING REMOTE CAMERAS TO MONITOR MONTANE SEABIRD BURROWS IN KAUA'I - André F Raine*	FINE SCALE FORAGING BEHAVIOR OF THE FREE-RANGING RAZORBILL - Akiko Shoji*+, Ellie Owen, Mark Bolton, Holly Kirk, Ben Dean, Dave Boyle, Annette Fayet, Chris Perrins, Robin Freeman, Stéphane Aris-Brosou, and Tim Guilford
1500-1530	<i>Coffee Break</i>	<i>Coffee Break</i>
	<i>Climate change and Changing Seascape - Adrian Gall</i>	<i>Bycatch and Birds at Sea - Shannon Fitzgerald</i>
1530	ANNUAL SURVIVAL OF AN ARCTIC-WINTERING SEABIRD IN THE 21ST CENTURY: ARE RECENT DECREASES IN SUMMER ICE AFFECTING OVERWINTER SURVIVAL - Paul M. Lukacs and George J. Divoky*	THE MYSTERIOUSLY DISPERSIVE MIGRATION OF THE ATLANTIC PUFFIN - Annette Fayet*+, Akiko Shoji, and Tim Guilford
1545	NEW NEIGHBORS: CHANGES IN THE MARINE-BIRD COMMUNITY OVER THE PAST 35 YEARS - Adrian E. Gall*+, Tawna C. Morgan, Madeline Merck, and Robert H. Day	"STEPPING STONE" MIGRATION IN SOUTHWARD MIGRATING ARCTIC TERNS: THE APPARENT IMPORTANCE OF UPWELLING AREAS - Aly McKnight, Andrew J. Allyn, David C. Duffy, and David B. Irons*
1600	CHASING ICE: POST-BREEDING BLACK GUILLEMOTS PURSUE RETREATING ICE INTO THE ARCTIC BASIN - Iain J. Stenhouse and George J. Divoky*	MODEL-BASED ABUNDANCE ESTIMATES OF THE HAWAIIAN PETREL (PTERODROMA SANDWICHENSIS) AND NEWELL'S SHEARWATER (PUFFINUS NEWELLI) BASED ON DATA COLLECTED AT SEA, 1999-2011 - Trevor W. Joyce*+ and Lisa T. Ballance
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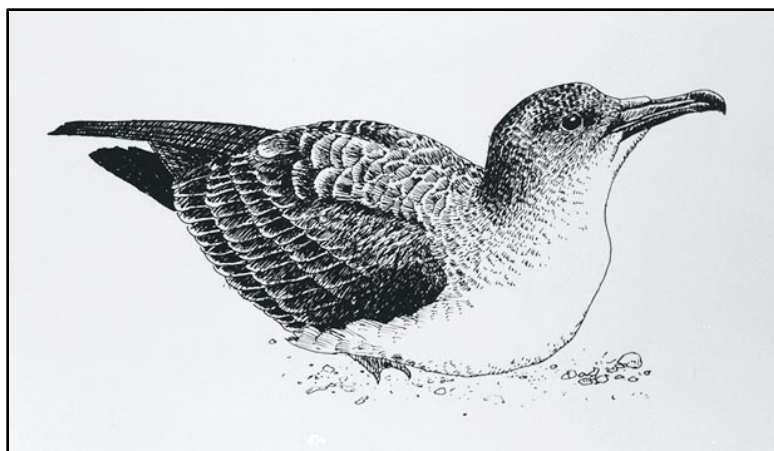
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