

**2019 Pacific Seabird Group
46th Annual Meeting**



Kaua'i Beach Resort

Lihue, Kaua'i, Hawai'i

27 FEBRUARY – 3 MARCH 2019

SPONSORS

We acknowledge the generous support of the following sponsors and donors:

Financial Support



In-Kind Support



CONFERENCE SCHEDULE OVERVIEW

Tuesday 26 February 2019				
1600-1800	Early Registration (Conference Room Lobby)			
Wednesday 27 February 2019				
	Kaua'i Beach Resort			
	Jasmine 3	Orchid 1	Orchid 2	Ginger
0700-1700	Registration Desk open (Conference Room Lobby)			
0800-0900	Aleutian Tern Technical Committee	USFWS Pacific Seabird Program	Marbled Murrelet Technical Committee	PSG EXCO (coffee break for exco only at 10.00-10.30 and 3.00-3.30)
0900-1000		PSG Seabird Monitoring Committee		
1000-1100	Scripps's and Guadalupe Murrelet Technical Committee	Kittlitz's Murrelet Technical Committee		
1100-1200				
1200-1300		BREAK	BREAK	PSG EXCO boxed lunch pick-up Naupaka Terrace
1300-1600	Northeast Asian Seabird Conservation Committee	Tufted Puffin Technical Committee	Marbled Murrelet Technical Committee	PSG EXCO
1600-1800	Hotel Setup (some setup will occur as meetings are happening)			
	PLENARY 1: Sabra Kauka, Special Invitation Opening Ceremony HO'OKAHI KAKOU I KE ALOHA/ WE ARE MADE ONE THROUGH ALOHA			
1800-1900				
1900-2100	WELCOME RECEPTION (Jasmine 1 & 2)			
Thursday 28 February 2019				
	Jasmine			
0700-1700	Registration Desk open (Conference Room Lobby)			
0800-0830	Welcome and Opening Remarks. Special Message from Governor David Ige (by Carrice Gardner)			
	PLENARY 2: Dr. Mark Rauzon, Special Invitation THE PACIFIC PROJECT - SECRET MONITORING OF SEABIRDS AND BIOWARFARE TESTING (Jasmine 1 & 2 Ballroom)			
0830-0930				
0930-1000	Coffee Break			
	Jasmine 1 & 2	Jasmine 3	Orchid 1 & 2	Ginger
1000-1200	Plastic Ingestion in Seabirds and its Chemical Effects	Special Paper Session 1: Cultural	Behavior & Physiology	NPAWG -North Pacific Albatross Working Group
1200-1300	Lunch			
1200-1300	Predator Control Workshop		Early Career Scientist Panel	Former Chairs Lunch (invite only)
1330-1500	Restoration of Procellariform Seabirds	Human Dimensions of Seabird Conservation	Conservation	
1500-1530	Coffee Break			
1530-1630	Restoration of Procellariform Seabirds	Human Dimensions of Seabird Conservation	Conservation	NOAA Fisheries National Seabird Program - Interagency Working Group meeting
	PLENARY 3: Dr. David Duffy, Lifetime Achievement Award ONCE AND FUTURE SEABIRDS OF HAWAI'I. (Jasmine 1 & 2 Ballroom)			
1630-1730				
1730-1830		Wildlife Acoustics Workshop		
1830-2030	POSTER RECEPTION - Jasmine 1&2 Ballroom			

Friday 1 March 2019				
	Jasmine			
0700-0800	Yoga with Yuki - free on the beach (if fine) or in the Hale (if wet)			
0800-1700	Registration Desk open (Conference Room Lobby)			
0815-0830	Opening Remarks			
0830-0930	PLENARY 4: Dr. Helen James, Special Invitation MUSEUM SPECIMENS OF SEABIRDS AS ECOLOGICAL ARCHIVES (Jasmine 1 & 2 Ballroom)			
0930-1000	Coffee Break			
	Jasmine 1 & 2	Jasmine 3	Orchid 1 & 2	Ginger
1000-1200	Specimen-based Historical Research	Breeding Biology	Conservation	
1200-1300	Lunch			
1200-1300	Lunch (PSG Members' Meeting -- All Welcome)		Translocations - Roberta Swift Lunch Meeting	
1330-1500	Foraging Ecology	Breeding Biology	Tools & Techniques	
1500-1530	Coffee Break			
1530-1700	Management	Special Paper Session Hot Topics in the Eastern Pacific	Tools & Techniques	
1700-1800	Break			
1800-2000	STUDENT MENTORING RECEPTION - Jasmine 3			
1900-2100	Documentary Film Festival (Jasmine 1 & 2)			

Saturday 2 March 2019				
	Jasmine			
0800-1700	Registration Desk open (Conference Room Lobby)			
0815-0830	Opening Remarks and Special Message from Congresswoman Tulsi Gabbard (by Kaulana Finn)			
0830-0930	PLENARY 5: Dr. Tony Gaston SOME IMPORTANT AND UNRESOLVED PROBLEMS IN SEABIRD SCIENCE (Jasmine 1 & 2 Ballroom)			
0930-1000	Coffee Break			
	Jasmine 1 & 2	Jasmine 3	Orchid 1 & 2	Ginger
1000-1200	Climate Change	Population Biology	Tracking and Distribution	
1200-1300	Lunch			
1200-1300	Lunch (Conservation Committee Meeting)			
1330-1500	Genetics	Population Biology	Tracking and Distribution	
1500-1600	PLENARY 6: Dr. Beth Flint, Lifetime Achievement Award PINCH POINTS AND SCALE: IMAGINING BIOGEOGRAPHY FOR SEABIRDS OF THE CENTRAL PACIFIC (Jasmine 1 & 2 Ballroom)			
1600-1830	Free Time			
1700-1800	Pacific Seabird Connections: Outreach to Kaua'i Community College			
1900-2100	Vendor Displays and Shopping			
1900-2300	HUGE PARTY (Jasmine 1 & 2 & 3 Ballroom) Lots of Food & Drink, Soul Fire Dance Troupe, Fashion Show, & Roundhouse Ramblers Bluegrass Band			

TABLE OF CONTENTS

Sponsors	Inside Cover
Conference Schedule Overview	2
Acknowledgments	5
Local Committee Welcome	8
Greetings from the Scientific Program Chair	9
Venue and Event Maps and Information	10
Meeting Logistics	11
Conference Meetings	12
Social Events	13
Foraging Bouts	14
Documentary Festival	15
Sustainability at PSG2019	16
Field Trips	17
Special Sessions & Symposia	18
Workshops	20
Information for Presenters, Session Chairs, & Judges	21
Plenary Speakers	23
Special & Lifetime Achievement Awards	25
Detailed Schedule	27
Posters	33

ACKNOWLEDGEMENTS

We would like to thank the following people and organizations for all their hard work to make this meeting possible.

Audio Visuals: AV Kauai Inc. & Helen Raine with support from Forest Bird Recovery Project, Diegmann Science Services & Stephen Rossiter.

Conference Planning and Registration Desk: Helen Raine

Cultural Representation: Sabra Kauka, Hob Osterlund, Maka'ala Kaaumoana & André Raine

Documentaries: Hob Osterlund, Maka'ala Kaaumoana, Mike McFarlin, Ian Nelson, Johanna van de Woestijne, Kim Rogers, Bill Morris & André Raine.

Early Career Scientist Panel: Corey Clatterbuck, Janelle Lopez & Jeri Wisman

Education: Derek Harvey, Trinity Tippin & André Raine.

Field Trip Logistics: André Raine, Jennifer Rothe & Helen Raine in coordination with DOFAW

Field Trip Leaders: Jennifer Rothe, Chris Landreau (ancientkauai.com), Reggie David, Mele Khalsa & Lindsay Young

Fundraising: André Raine, Marc Travers, Jane Dolliver, Kirsten Bixler and all the generous sponsors!

Meeting Websites: Jane Dolliver, Anne Francis, Jenny Howard, Joanna Smith & Jill Tengeres

Merchandise: Katie Stoner, Stephen Rossiter & Megan Vynne

Party and Fashion Show: Yuki Reiss & Helen Raine

Poster Session: Megan Vynne

Program Setup: André Raine, David Craig, Jane Dolliver, Adrian Gall, Scott Driskill & Helen Raine

Roomshares and Rideshares: Corey Clatterbuck & Nicole Kleponis

Silent Auction: Corey Clatterbuck, Sonya Pastran, Marc Travers and all the generous donors who contributed items

Social Media: Stephanie Avery-Gomm, Laura Bliss, Jane Dolliver, Julia Gulka, Jacqueline Huard & Olivia Townsend

Student/Mentor Social: Corey Clatterbuck & Vivian Pattison

Sustainability: Brooke McFarland & Jessi Hallmann Behnke

Symposium & Special Paper Session Chairs: Helen James, Verónica López, Hannah Nevins, Jaime Ojeda, Peggy Ostrom, Cristián Suazo, Eric VanderWerf, Yutaka Watanuki & Lindsay Young

Vendors and Exhibitors: Yuki Reiss & André Raine

Volunteers: Laura Todd, Katherine Rubiano & Helen Raine

Yoga: Yukiogakauai.com

General Session Chairs:

Behavior and Physiology - Jean-Batiste Thiebot

Breeding Biology - Kathy Kuletz, Marc Romano

Climate Change - Gordon Wilson-Naranjo

Conservation - Caroline Fox, Don Lyons, Lindsay Young

Foraging Ecology - Daniel Barton

Genetics - Gordon Willson-Naranjo

Hot Topics Discussion - Adrian Gall

Management - Ed Melvin

Plastic Ingestion - Yutaka Watanuki

Population Biology - Dave Shutler, Casey Youngflesh

Special Session Chairs:

Special Session: Human Dimensions of Seabird Conservation - Hannah Nevins

Special Session: Restoration of Procellariiform Seabirds - Eric VanderWerf, Lindsay Young

Special Session: Seabirds and Indigenous Cultures - Jaime Ojeda, Cristián Suazo

Special Session: Specimen-based Historical Research - Helen James, Peggy Ostrom

Tools and Techniques - Rachael Orben, Peter Paton

Tracking and Distribution - Rob Suryan, Leigh Torres

About the Front Cover:

Thanks to Becky Williams for the awesome design of the conference logo. It depicts an endangered seabird that is very special to Kaua'i - the Newell's Shearwater *Puffinus newelli* - of which 90% of the World's population is found on our island. The flower is a *Cyanea kuhlhewa*, another Kaua'i endemic found in the mountains where the shearwater breeds.





Pacific Seabird Group

PACIFIC SEABIRD GROUP EXECUTIVE COUNCIL FOR 2018–2019

Officers

Chair	Adrian Gall
Chair-elect	David Craig
Past Chair	Kyra Mills
Vice-chair for Conservation	Mark Rauzon
Treasurer	Kirsten Bixler
Secretary	Jane Dolliver

Representatives

Alaska and Russia	Marc Romano
Washington and Oregon	Peter Hodum
Northern California	Kirsten Lindquist
Southern California, Latin America, & Hawai'i	André Raine
Non-Pacific USA	Samantha Richman
Canada	Trudy Chatwin
Asia and Oceania	Luke Einoder
Europe and Africa	Ross Wanless
Student Representative	Corey Clatterbuck

Local Organizing Committee for the 2019 Annual Meeting

André Raine -Local Committee Chair
Jessi Hallman-Behnke - Local Committee Co-Chair
Sabra Kauka, Hob Osterlund, Maka'ala Kaumona, Sheri Mann, Yuki Reiss, Marc Travers, Trinity Tippin, Derek Harvey, Jennifer Rothe, Stephen Rossiter, Scott Driskill, Katherine Rubiano, Brooke McFarland - Local Committee Members
David Craig - Chair of the Scientific Program
Adrian Gall - Chair
Jane Dolliver - Secretary
Kirsten Bixler - Treasurer
Kyra Mills - Chair of the Awards Committee
Helen Raine - Conference Planner

LOCAL COMMITTEE WELCOME

On behalf of the Local Committee of the 46th Annual Meeting of the Pacific Seabird Group, I would like to welcome you to beautiful Kaua'i, the Garden Island! We are honored to hold the PSG conference on Kaua'i and to welcome everyone from around the Pacific. This year we have over 285 registrants from 13 different countries, which really highlights both the strength of the Pacific Seabird Group in bringing seabird researchers together and the fine work being conducted by so many dedicated people on behalf of our favorite birds; the seabirds. PSG is a great opportunity for everyone in the Pacific to catch up with colleagues, learn about new advances and discoveries, talk about research techniques that might transfer well to other projects and learn about what worked and - equally importantly, what didn't work - in other projects.

The Hawaiian Islands are an important refuge for seabirds in the Pacific, with internationally important breeding populations of many species and two endemics; the Newell's Shearwater and the Hawaiian Petrel. From the millions of breeding Laysan Albatross in the Northwestern Hawaiian Islands to Hawaiian Petrel colonies clustered around volcanic mountains and mist-enshrouded montane forests, Hawai'i has seabirds in spades! Kaua'i itself is a great example of the importance of Hawai'i to Pacific seabirds, with 90% of the World population of the endemic Newell's Shearwater. There are also multiple seabird management projects and internationally important seabird refuges such as Lehua Islet Bird Sanctuary and Kilauea Point National Wildlife Refuge.

The venue - Kaua'i Beach Resort - was chosen in part due to its seabird friendly lighting and lack of feral cat colonies (both issues for seabird conservation on Kaua'i). We have also worked hard to make this the most sustainable PSG conference yet by cutting down on plastic, waste and energy costs. New this year is a documentary festival and the first ever PSG seabird party. The idea was to get everyone at the conference to attend this closing party so we've lowered the price and brought in some of Kaua'i's best performers. You just need to pack your favorite bird outfit and practice your bird calls - there'll be prizes for both.

In this program, you will find everything you need to make this conference work best for you. If there is anything you need at all while you are here, feel free to ask the Local Committee - be it where a particular talk is being held, how to upload a presentation (there's a new Dropbox function for that) or even where the best spot is for a cold beer on the island! We are here to help.

Aloha!

André Raine (Local Committee Chair)



GREETINGS FROM THE PROGRAM CHAIR

Welcome to the 46th Annual Meeting of the Pacific Seabird Group! As Chair of the Scientific Program for the 2019 Annual Meeting of the Pacific Seabird Group it is my great pleasure to share a rich schedule of scientific and cultural events for our gathering in Kaua'i.

The theme of this year's meeting is "Seabirds in a Changing Pacific Ensuring a Future, Fighting the Plastic" and we are particularly excited about the six plenaries, five symposiums and at total of 145 oral presentations and 55 poster presentations given by scientists from at least 13 countries. More than half the talks include students and early career professionals which is encouraging as seabirds are going to need new generations dedicated to research and conservation.

We will start with a very special plenary and opening ceremony by Sabra Kauka. **Please make every effort to join us at this significant intersection of science and indigenous culture.** The special Invitation plenary will be given by Dr. Mark Rauzon who will continue the theme of science and cultural intersections in his talk "The Pacific Project - Secret Monitoring Of Seabirds And Biowarfare Testing". Dr. Helen James's Special Invitation talk draws on specimens collected in the Pacific Project and she will elaborate about the value of "Museum Specimens Of Seabirds As Ecological Archives." Dr. Tony Gaston's talk "Some Important and Unresolved Problems In Seabird Science" is a belated plenary acknowledging he was unable to make remarks in 2014 when he was recognized with a Life Time Achievement Award. This year, two new Life Time Achievement Awards are being awarded to Dr. David Duffy who will talk about "Once And Future Seabirds Of Hawai'i" and Dr. Beth Flint who will present "Pinch Points And Scale: Imagining Biogeography For Seabirds Of The Central Pacific."

The subjects of our plenaries are carried on in our in special paper sessions which include attention to Seabirds and Indigenous Cultures; Human Dimensions of Seabird Conservation: Challenges and Solutions; Specimen-based Historical Research; Plastic Ingestion in Seabirds and Its Chemical Effects; and the Restoration of Procellariiform Seabirds. There is a poster session Thursday evening and fantastic talks for three days straight before we finish on Saturday with a great big party and awards ceremony for exceptional presentations.

"Seabirds in a Changing Pacific Ensuring a Future, Fighting the Plastic" acknowledges that within the last 46 years the planet has been changing in ways that are bad for seabirds and that it will take everyone's creativity, intelligence, and persistence as scientists to do what we can to produce new knowledge and apply it to ensure seabird survival in a changing climate. Arguing to fight plastic is nothing new to PSG, but because the topic is newly popular in the public media, including it in our theme has helped us with fundraising and drawing public interest in our scientific research.

Many thanks to everyone who has contributed to the program, for those that are volunteering to help support the presenters, and for those who are attending to learn about the newest and best work of the Pacific Seabird Group. This is a great program sure to inspire us all to do even more.

David P. Craig (Scientific Program Chair)

MAP OF CONFERENCE LOCATION IN RELATION TO LIHUE AIRPORT, LIHUE AND KAPA'A



MEETING LOGISTICS

REGISTRATION

The registration desk will be in conference room lobby (outside Jasmine Ballroom) as follows: Tuesday afternoon 4-6pm, Wednesday 7am-5pm, Thursday 7am-5pm, Friday 7:30am-5pm and Saturday 7:30am-5pm. Please help us avoid the Thursday morning rush by stopping by the registration desk on Tuesday or Wednesday.

Transportation

There is a free hotel shuttle to and from the airport. It runs on a first come, first served basis. Once you have your luggage, call the hotel via the courtesy phone outside baggage claim. For your return, please make your arrangements at the hotel reception.

Lunch

Lunch is included in the conference registration cost and will be served in a compostable container every day in the Naupaka Terrace. You may eat it in the restaurant, at the beach, during a lunch meeting.... or wherever else you choose (except in presentations). It's really important for our sustainability effort that you put the used container in our two specially designated compost bins (any other compostable items can also go in there e.g. fruit and vegetable remains). Coffee will be served in the Naupaka restaurant after lunch - take your reusable mug!

Receptions

You will also be entitled to a free drink and pupus at the Welcome Reception and the Poster Session Reception. 'Pupus' are the Hawaiian word for 'light snacks' (we're talking 5 or 6 spanakopita, wontons or similar). Unless you're a light eater, you might still need dinner. You'll need to bring your drinks ticket if you want your free drink. There's a different color ticket for each reception, so make sure you bring the right one!

Party

We are really excited about our brand new party concept this year. Your party ticket will include a burger (veggie or meat) and a free drink, plus really fabulous entertainment (see the PSG website for details). We have tried to keep the cost down to make this accessible for everyone. Please book your tickets online. Bring your lanyard to the party.

Twitter

We encourage anyone with a Twitter handle to share updates from the meeting using the hashtag **#PSG2019**. You can also follow and mention @PacificSeabirds. Presenters, if you would like to encourage mentions of your work, please include your Twitter handle on your opening (and closing) slides. Conversely, if you prefer that your presentation not be tweeted, please say so at the beginning of your talk. PSG's own designated Tweeter Jenny Howard will be tweeting from the conference to keep members engaged with the events in Kaua'i.

Shopping

Our vendors will be in the ballroom area throughout the conference, but we have two special shopping times when everyone will be open. They are during the Poster Session, Thursday 6.30-8.30pm and during the party on Saturday night, both in the Jasmine Ballroom.

CONFERENCE MEETINGS

The following meetings will be held before and during the scientific program. All interested members are welcome to attend any of these meetings. In particular, please come to Friday's PSG Members' Meeting and Saturday's Conservation Committee meeting, where you can learn about PSG's activities during the year and make comments or raise issues that concern you.

Pacific Seabird Group Executive Council, *Wednesday, 08:00-17:00, Ginger*

Aleutian Tern Technical Committee, *Wednesday, 08:00-10:00, Jasmine 3*

Scripps' and Guadalupe Murrelets Technical Committee, *Wednesday, 10:00-13:00, Jasmine 3*

Northeast Asia Seabird Conservation Committee, *Wednesday, 13:00-16:00, Jasmine 3*

USFWS Pacific Seabird Program, *Wednesday, 08:00-09:00, Orchid 1*

PSG Seabird Monitoring Committee, *Wednesday, 09:00-11:00, Orchid 1*

Kittlitz's Murrelet Technical Committee, *Wednesday, 11:00-12:00, Orchid 1*

Tufted Puffin Technical Committee, *Wednesday, 13:00-16:00, Orchid 1*

Marbled Murrelet Technical Committee, *Wednesday, 08:00-16:00, Orchid 2*

North Pacific Albatross Working Group, *Thursday, 10:00-12:00, Ginger*

NOAA Fisheries National Seabird Program Interagency Working Group, *Thursday, 15:30-17:30, Ginger*

PSG Members' Meeting, *Friday, 12:00 – 13:00, Jasmine 1&2*

Translocations, *Friday, 12:00 – 13:00, Orchid 1&2*

Conservation Committee, *Saturday, 12:00 – 13:00, Jasmine 1&2*

Social Events

Welcome Reception, Wednesday, 18:00–21:00, Jasmine Ballroom

We are very honored to have Kumu Sabra Kauka open the conference for us. Kumu Sabra is a strong voice on Kaua'i both for Hawaiian values and conservation. As a cultural practitioner and teacher, she helps sustain and perpetuate Native Hawaiian traditions by sharing her knowledge with future generations. Kumu Sabra is also a tireless supporter of seabird conservation and has made a huge difference to the perception of native seabirds in the local community. She will start the conference with a sacred Hawaiian Kawaiola (water) ceremony. We have sent everyone an email with the details on how you can participate in this. This will be followed by a hula (the Pule *Ho'āla "O Nā Kumu Akua* with Kehaulani Kekua and Halau Palaihiwa O Kaipuwai) and then a presentation by Kumu Sabra entitled "*Ho'okahi kakou i ke aloha* (We are made one through aloha)". Afterwards there will be a free drink and pupus (light snacks). We highly recommend that you attend this opening ceremony to really understand the importance of seabirds in Hawaiian culture!

Poster session, Thursday, 18:30–20:30, Jasmine Ballroom

Poster boards will be in the Jasmine ballroom. Please put your poster up on Wednesday (all day) or Thursday (coffee breaks and lunch ONLY to avoid disturbing presenters). Boards are double sided and take TWO posters per side. Participants **must** hang their posters by 5.30pm on Thursday and remove them by the end of lunch on Saturday.

Student-Mentor Mixer, Friday, 18:00–20:00 Jasmine 3

Would you like to be sipping on a free drink and munching tasty pupus (snacks) while you hit up some conservation heavyweights for jobs or ideas? If so, reserve your spot online for the 12th Annual Student-Mentor Event, organized by PSG student representative Corey Clatterbuck and Vivian Pattison. This social event is an opportunity for students to meet and learn from PSG members representing academia, government, NGOs, and private consulting, and discuss careers in teaching, research, management, and policy. We encourage participation from all career stages and professions as mentors (e.g., early career scientists, mid or late career professionals).

Big Bad Seabird Party, Friday, 19:00–23:00, Jasmine Ballroom

Be there for the very first PSG Seabird PARTY! Party girl Yuki Reiss has organized an unforgettable night of entertainment. Have your photo taken with the goddesses from Soul Fire in their flamboyant bird costumes; shake your tail feathers to bluegrass band (and fellow conservationists) the Roundhouse Ramblers; strut your stuff in our bird fashion show (bring a costume or your best bird shirt/frock); take out the competition in the bird call contest (there'll be prizes); and enjoy a burger or mushroom burger with a free drink (there'll be a cash bar once the freebies run out). Book your ticket online at the bargain price of \$35 (or at the reception desk) and **you'll need to bring your lanyard to return to us.....** that way, they'll all get recycled.

Silent Auction, Thursday, 0930 – Saturday 24, 13:00, Jasmine Ballroom

The silent auction will be held from Thursday 28 February through Saturday 2 March at 13:00, after which all bids are closed. Please pay by 17:00 on Saturday 2 March at the registration desk - we have trackers primed to hunt you down if required. All proceeds support the student travel award program. Come and bid on some beautiful artwork, books, photographs, activities, gift sets, clothes, jewelry and other wonderful items that have been donated for the auction. Sheets will be placed next to each item; indicate your bid on the sheet. We will accept payment by cash, check or credit card for items won. If you brought items to donate (and everyone can surely find one item?), please drop them off at the registration desk when you first register.

FORAGING BOUTS

Breakfast

Breakfast is not included with your registration. If you wish to have breakfast at the hotel (it costs \$23pp plus taxes and service) you must purchase a breakfast coupon from the hotel reception the night before. Otherwise, the nearest local shops and restaurants are in Lihue. Kapa'a is a little further away but still accessible by car.

Lunches

Lunch will be provided for all conference participants (but not guests) on the 28th Feb, 1 Mar and 2 Mar in the Naupaka restaurant and is included in your registration. It will consist of a box lunch (e.g. sandwich, carrot sticks, cookie, bag of chips) and will be either meat or vegetarian. To keep with our overall theme of promoting sustainability in this conference, Thursday's lunch will only be vegetarian (two options still available) in a bid to reduce our carbon footprint. You can eat your lunch in the restaurant, on the beach, at a meeting... or wherever you choose (except at presentations). Coffee/tea will be served so please bring your reusable travel mug, generously provided by the State of Hawaii's Division of Forestry & Wildlife. If you need a special meal, please let us know well in advance; the hotel will keep it aside for you.

Breaks

Both the morning and afternoon breaks during the scientific session will have coffee (kindly sponsored by Kaua'i Coffee), tea, and light snacks for participants. Please wear your lanyard at all times.

Welcome reception - Jasmine Ballroom

Pupus (light snacks) and one free drink are included in registration for Participants and Guests. This will be followed by a cash bar.

Poster session - Jasmine Ballroom

Pupus (light snacks) and one free drink are included in registration for Participants and Guests. This will be followed by a cash bar.

Student Mentoring Session - Jasmine 3

To participate in the student mentoring session as a student or mentor, please sign up online beforehand. Pupus (light snacks) and one free drink will be included, followed by a cash bar (cash bar also available to film-festival goers). A limited number of walk-ins may be accepted at the student mentoring session, but we'd appreciate it if you could sign up at least 48 hours in advance.

Documentary Film Festival - Jasmine Ballroom

A cash bar will be available in Jasmine 3.

Party - Jasmine Ballroom

The party will include a burger (meat or veggie) and one free drink. A bar is available on site to purchase additional drinks.

Foraging further afield - There are lots of eating options within flapping distance from the conference. Spread your wings and head to Lihue or Kapa'a for great restaurants, bars and other eateries. Feel free to ask for choice spots at the Registration Desk.

DOCUMENTARY FESTIVAL

Come and join us for a documentary film festival on Friday March 1st between 19:00 and 21:30. We have a great line up for you, including a world premiere. Each documentary will be introduced by someone involved in the film and there will also be an opportunity for you to ask them questions after. Showings will be as follows:

19:00-19:20 – **“Kalama’s Journey”**. Written and produced by Hob Osterlund, presented by Maka’ala Kaaumoana and Hob Osterlund.

*“The Hawaiian people are a family, an ohana. This ohana includes all the things in our universe, some seen and some not. Each plant, animal, rock and place has meaning and these meanings provide guidance. In the past decade, we have observed major changes in our ohana. The 8-minute documentary “Kalama’s Journey” tells us the story of these changes. Because their world is changing, in some cases disappearing, Kaua’i is becoming a Noah’s Ark for the Laysan Albatross (*Phoebastria immutabilis*) and other Pacific seabirds. Our kuleana, or responsibility, is heavy and urgent. Please join me in “Kalama’s Journey”.*”

19:20-20:00 – **“Saving Kaua’i’s Seabirds”**. The Worldwide Premiere! A Coriolis Film Production, directed by Ian Nelson, Co-directed by Mike McFarlin and produced by Joahanna van de Woestijne. Presented by Mike McFarlin.

“This documentary considers the threats facing the endangered seabirds of Kaua’i and how conservation organizations across the island are helping them. Focusing on seabird monitoring, predator control, power line collisions, rehabilitation and translocation efforts, this piece showcases the passion and determination of ecologists and conservationists to preserve these species and the habitats they live in. The film will be released in wildlife film festivals, distributed through local platforms like public broadcast networks, and will be provided for educational purposes to the featured conservation partners.”

20:00-20:45 - **“Saving Ohia, Hawai’i’s Sacred Tree”**. A film by Club Sullivan, this documentary is about an incredible team of scientists, conservationists, and residents determined to protect the native forests of Hawai’i from the ravages of Rapid Ohia Death, which has the potential to be one of the biggest threats to Hawai’i’s forests in decades. Presented by Kim S Rogers, Kaua’i ROD Outreach Specialist (Kaua’i Invasive Species Committee).

20:45-21:30 – **“The Hunt to Save Beck’s Petrel”**. A documentary by New Zealand film maker Bill Morris, this documentary follows an expedition to Papua New Guinea to locate one of the World’s most elusive and rare seabirds; the Beck’s Petrel *Pseudobulweria becki*. The film maker followed the team over a two week period to the remote corners of New Ireland Island in their quest to deploy satellite tags on the petrels and locate their unknown breeding grounds. Presented by expedition member Dr. André Raine.

SUSTAINABILITY AT PSG2019

We are striving to make PSG 2019 our most sustainable meeting yet. The local committee has been focusing on reducing plastic and paper usage, cutting energy consumption and sustainable menu selection. We are pleased to have found a venue that has already implemented conservation measures and is willing to work with us on other initiatives. The Kaua'i Beach Resort has a commitment to providing seabird-friendly lighting and does not support feral cats on its property. The resort has also committed to eliminating straws completely and plastic cups everywhere except the pool area during the conference.

In keeping with the spirit and theme of the conference, please bring your own reusable water bottles and supply your own TSA appropriate toiletries (including reef-safe sunscreen; that means nothing with oxybenzone in it). Here are some of actions we are taking:

- The conference will provide coffee breaks and a lunch each day, as well as a drink and light pupus (snacks) at the welcome reception and poster session. Coffee will be served using china cups and plates, except after lunch when you will have the opportunity to use your reusable travel mug, generously provided by the State of Hawaii's Division of Forestry & Wildlife (DOFAW).
- There will be no plastic silverware, plates, cups, stirrers or straws. You will also notice that there are more vegetarian options available this year to reduce the carbon footprint of our food. The lunch on Thursday will be fully vegetarian (with two options). Lunches will be packaged in compostable boxes. **It's very important that you put these into the right receptacle, which will be located in the main conference ballroom and the restaurant.** Our sustainability coordinator will take them to a composting farm. Please kokua (cooperate) to make this work.
- There will be paper recycling bins in the main conference ballroom.
- Our main conference banner is printed on 100% cotton using eco-friendly inks. All other signage is paper-based and displayed using easels borrowed from the community.
- We are trying out a paper-free approach to the program (printed programs available for purchase on the Registration page). There will be no welcome packet or free swag bag as everything you need is online – we really want to cut down on waste. In keeping with the theme of sustainability, the swag this year will consist of a beautiful conference travel mug provided by DOFAW.
- We will be reusing lanyards from PSG 2018 and other conferences. You will need your lanyard to enter the conference area and access lunch, coffee, and to claim your free drink and pupus (snacks) at the receptions. You will also need to hand in your lanyard in its entirety at the party in exchange for your free drink... that will help us to pass the lanyards on to PSG2020.
- Please minimize energy use in your room and charge your devices during daylight hours when solar energy production is available.
- The Kaua'i Beach Resort is located on the beach and only 10 minutes from the airport, allowing attendees to use the free airport shuttle from the airport to the resort. With the PSG ride share option, a car rental may not be necessary for you.
- Please bring your own toiletries so that you do not have to use the hotel's tiny plastic bottles.
- Hang your towels so that they are not washed daily.
- Please let us know if you have other sustainable ideas for the next conference. We'll provide some post-its for ideas near our sustainability board, and feel free to pass on ideas at the registration desk as well.

FIELD TRIPS

The Kaua'i Local Committee are excited to welcome PSG delegates and we want to make sure you get a chance to explore the sights and sounds of our beautiful island. Here are the field trips we are offering for conference attendees.

Ancient Kaua'i Excursions. *Sunday March 3rd. 07:00-13:00.* Lead by a local archaeologist, this approx. 5-hour tour begins 10,000 years ago at the Makauwahi Cave Reserve, a rare limestone cave and sinkhole system where bones of the flightless duck (Moa Nalo) and other extinct bird species were found. You will see ancient volcanoes, endangered Hawaiian waterbirds and sweeping vistas of the untouched Maha'ulepu coast. There's also a chance to see rare native plants at the re-wilding project, which is mowed by giant tortoises.

Lowland Birding Tour. *Sunday March 3rd. 06:30-11:30.* Join us on this approx. 5-hour comprehensive tour of Kaua'i's lowland birds. Led by an expert birder, we will spend the day exploring the island in search of lowland endemics including the ae'o (Hawaiian Stilt) and koloa maoli (Hawaiian duck), as well as shorebirds and a host of introduced birds that call Kaua'i home. We might also spot the ilioholoikauaua - the Hawaiian Monk Seal – and green sea turtles.

Tour of Nihoku Translocation Site & Kilauea Point NWR. *Sunday March 3rd. 07:00-13:00.* Come see conservation in action on this private approx. 6-hour tour of the Nihoku predator-proof fence on Kilauea Point National Wildlife Refuge. This partnership project preserves safe nesting habitat for Newell's Shearwaters ('A'o) and Hawaiian Petrels ('Ua'u) which have been translocated to the site from montane colonies. After the tour, travel with us to the refuge lighthouse and catch glimpses of seabirds such as Laysan Albatross and Red-footed Boobies.

Lehua Islet & Seabird Combo Helicopter Tour. *Sunday March 3rd. 08:30-09:45.* This 1 hour plus helicopter tour gives you a birds-eye view of Lehua Islet, a very special place where an on-going rat eradication project is underway. Lehua is home to plethora of seabirds including Laysan and Black-footed Albatross, Bulwer's Petrel, Band-rumped Storm-petrel, Red-footed Booby, Wedge-tailed Shearwaters and more. From there we will fly to Kaua'i and view a number of seabird management sites including the beautiful Na Pali coastline, Upper Limahuli Preserve and Hono o Na Pali Natural Area Reserve.

Seabird Helicopter Tour. *Sunday March 3rd. 09:45-10:45.* Oh, this is a special one This helicopter ride will take you over endangered seabird management areas in the most rugged areas of the island, as well as gorgeous waterfalls, verdant valleys AND the beautiful Nā Pali coastline. Unless you are working on the seabird projects, it's impossible to get to our remote seabird sites, so this is the only chance to see where the action happens from the air.

Helicopter Day Trip to See Endemic Rarities. *Sunday March 3rd.* If you don't have the time to volunteer, this might be the trip for you. A helicopter will take you and a member of staff straight to the fieldcamp where you are most likely to see the highly endangered, endemic Puaiohi, 'Akikiki and 'Akeke'e. You will need to be able to walk several miles in difficult, muddy terrain.

Self-guided Tours

Kaua'i is a beautiful place to explore, replete with waterfalls, mist-enshrouded mountains, clear blue seas and a host of endemic birds. We would love to share our island with you, so feel free to come to the Registration Desk or track down members of the LOCO Committee to ask for insider information on those must-see places and things to do. We would be more than happy to tell you our favorite places to go to make your trip to Kaua'i even more memorable.

SPECIAL PAPER SESSIONS & SYMPOSIA

Restoration of procellariiform seabirds

Conveners: Lindsay Young lindsay@pacificrimconservation.org and Eric VanderWerf ewerf@hawaii.rr.com (Pacific Rim Conservation)

Seabird restoration in the tropical and south Pacific has been heavily focused on procellariiform seabirds in past decades. This is in part due to their susceptibility to predation when non-native mammals are introduced, as well as their high natal philopatry. The strong natal philopatry many procellariiformes seabirds exhibit makes natural colonization of ecologically damaged sites unlikely, or extremely slow. However, this philopatry can be also be used to increase the colonization rate by using passive and active seabird restoration techniques. Translocation (active) and social attraction (passive) are being increasingly used as tools to manage seabirds and help restore ecosystem function. Particularly with the recent development of large scale pest eradication and exclusion techniques, pest- free islands and fenced sanctuaries are being evaluated for their potential to serve as seabird breeding sites. Social attraction relies on passive methods including broadcast of acoustic signals such as courtship calls and visual signals such as decoys. Translocation is a more active approach that involves physically moving chicks or eggs, hand-rearing them at a new site, and relying on their inherent natal philopatry to ensure their return at the desired location. This session will present both case studies and reviews involving a variety of taxa from projects that utilize predator removal as well as both types of seabird restoration techniques from around the Pacific to facilitate information exchange across regions.

Specimen-based Historical Research

Conveners: Helen James (National Museum of Natural History) jamesh@si.edu and Peggy Ostrom (Michigan State University) ostrom@msu.edu

Recent PSG meetings have highlighted the value of long-term field studies, and with this session we plan to extend that perspective by discussing the longer timelines that can be developed by incorporating museum specimens and other archives in research. The emphasis will be on temporal datasets that integrate with, or contextualize, modern field studies. This is a fairly broad umbrella, encompassing for example, isotope ecology, ecological baselines, and ancient or antiquated DNA from specimens, in addition to more traditional museum subjects such as taxonomy, prior distributions, and molt. Integrating long-term data from museum specimens and archives with modern field studies.

Seabirds and Indigenous Cultures

Conveners: Jaime Ojeda (University of Victoria (BC) jaimeojedav@gmail.com and Cristián Suazo (Justus Liebig University-Giessen & ATF-Chile, BirdLife International) biosuazo@gmail.com

Current knowledge is experiencing a growing and frequent interaction of communities with people who are more involved with the once-isolated western science. Today, we can find a diverse and interactive seascape, including the revival of ecological and traditional knowledge from communities. In turn, people's wisdoms can help inform decisions to keep or change our experiences and habits with marine biodiversity, such as seabirds. However, linkages between biodiversity and cultural diversity (biocultural diversity) are being eroded with detrimental effects on unique sources of knowledge. Intangible cultural-spiritual links through people's experiences involve us with seabirds, thus facilitating a unique platform to learn from each other. A brief storytelling opportunity to communicate experiences from anyone who wants to share and learn

through a different way of knowledge and recognize how seabirds' impact on our interaction with the conservation and management of the marine realm.

Human Dimensions of Seabird Conservation: Challenges and Solutions

Conveners: Verónica López, Oikonos Ecosystem Knowledge, veronica@oikonos.org; Hannah Nevins, American Bird Conservancy, hnevins@abcbirds.org

Seabird conservationists often face challenges where human demands for resource extraction, energy infrastructure, fisheries, harvest, and recreation are in opposition to needs for the conservation of imperiled seabird populations. Today, increases in human populations and coastal development are driving global demand for fisheries resources and expanding renewable energy that are further impinging on seabird populations both on land and at sea. Speakers will present case studies from around the Pacific highlighting these situations and discussing resource conservation and anthropogenic development interactions that have resulted in positive conservation progress as well as those where outcomes were less than satisfactory. The panel will explore the question of how to engage all entities involved in these important issues (from businesses to local communities to conservationists) while avoiding the tragedy of the commons. Participants in this session include biologists and managers from the private sector, NGO community, indigenous peoples, state and federal regulators, and academics working to solve these complex problems and minimize conflict and identify workable solutions that benefit seabird populations. Examples come from case studies covering such diverse issues as fisheries extraction and bycatch, light attraction, recreational activities, power lines and collision minimization, renewable energy (wind and solar development), and harvest of seabirds as food.

Plastic ingestion in seabirds and its chemical effects

Convener: Yutaka Watanuki Graduate School of Fisheries Sciences, Hokkaido University, Minatocho 3-1-1, 041-8611, Japan: ywata@fish.hokudai.ac.jp

Marine plastics are recent public concern. Seabirds ingest plastics globally and thus can be under its influences. Among these, the extents and the effects of Persistent Organic Pollutants that are added during the manufacture processing of plastics and absorbed when these plastics were floating at the sea are least known. The paper of session will present how and what extent these plastic-derived chemicals are accumulated in the bird's tissue. Thus the session will help the understanding of potential effects of plastics on seabird physiology. Further the session discuss how we can use these chemicals as markers of plastic ingestion through non-invasive preen gland oil sampling instead of carcass examination or sampling stomach contents.

WORKSHOPS

WORKSHOP 1: Predator Control Workshop: Predator Control for Seabird Protection

Thursday, February 28th, 12:00-13:00pm

Moderators: Kyle Pias & Alex Dutcher

A guided discussion covering multiple predator control subjects, specifically for those interested in pursuing predator control for the protection of seabird populations. We will cover specifics of cat and rodent trapping, details on a few select trap types, and basics of trap setting. We will also discuss trap line development and tools for success in predator control management. The goal is to cover the basics of rodent and cat trapping in and around seabird colonies. Limited spaces are available and pre-registration is required.

WORKSHOP 2: Wildlife Acoustics Song Meter SM4 Workshop

Thursday, February 28th, 5:30-6:30pm

Convener: Ali Donargo

Acoustic recorders provide a non-invasive and cost-effective technique to assess species biodiversity within a region. This is especially true for seabird research, where study sites may be difficult to access, and timing and conditions make traditional methods of monitoring challenging. This hands-on workshop will teach participants the features and set up of the Song Meter SM4 recorder, how to create recording schedules, and how to use our configurator software to estimate battery and card space needed. We recommend you download the free Song Meter SM4 Configurator at <https://www.wildlifeacoustics.com/download/song-meter-configurators> in advance of the workshop. At the end of the workshop, a few prizes will be raffled to participants. Limited spaces are available and pre-registration is required.

WORKSHOP 3: Hot Topics Round Table, Friday, 15:30 – 17:00, Jasmine 3

Moderator: Adrian Gall

An open session to discuss the ocean conditions and observations from the field in 2018 which appeared to affect seabirds and the ocean food web. The goal is to provide an open forum where information/observations can be rapidly communicated, and suggestions for interesting research cooperation/collaboration outside the meeting can be identified.

INFORMATION FOR PRESENTERS, SESSION CHAIRS, AND JUDGES

POSTERS:

For all those submitting posters for the 2019 PSG Conference please see below for guidelines regarding poster board deadlines and setup. If you have any questions please email Megan at mvynne@hawaii.edu.

Poster size is 48 x 48 inches (approx. 120 x 120 cm) and TWO posters fit on each poster board side, so please leave room for colleagues. Posters will go up in Jasmine Ballroom (boards will be located behind pillars near windows). Please check in with the PSG registration desk for more detailed room location description. Please only put up posters on Wednesday (Feb. 27th) or during breaks (coffee and lunch) on Thursday (Feb. 28th) and NOT at other times to prevent disruption to ongoing presentations. Setup is using push pins (push pins will be provided by PSG).

Poster reception starts at 6:30 pm on Thursday (Feb. 28th). The poster reception includes pupus and a free drink, plus cash bar. Posters MUST be removed by the end of lunchtime on Saturday (March 2nd).

ORAL PRESENTATIONS:

All talks will be limited to a 15-min TOTAL time period. This does not mean that you can talk the full 15 minutes. Please plan on a 12-min presentation, allowing for 3 minutes for questions. Allowing time for questions helps with the networking aspect of this meeting and invites further discussions after the talk (among other benefits). Session chairs will be instructed to stick to a very strict schedule, so please make sure your talk is 12 minutes long. It is the responsibility of all presenters to make sure their PowerPoint or PDF works properly. If your presentation is saved on a Mac, please test that it is functioning properly in Windows ahead of time. If in doubt, save the .pptx as a .pdf file. If your presentation requires audio or video, we strongly recommend that you test this ahead of time as well.

Loading presentations: We have set up a Dropbox for people to upload their presentations ahead of time. Here is the link - Please use the upload link corresponding to the day you will give your presentation.

Thursday: <https://www.dropbox.com/request/2xzcZpgCVWumu4zN0ET2>
Friday: <https://www.dropbox.com/request/p9JVdLSMwOnpCLutgHk2>
Saturday: <https://www.dropbox.com/request/bkKmOF4PaOyxlyEITLZQ>

Please note the following:

- 1) Please do this at least two breaks ahead of your session to prevent delays. If you are speaking after the morning break, this means loading your talk before the plenaries or the afternoon before (preferable).
- 2) Please name your file with the room, time, and your name as follows:
e.g. Jasmine1_10am_Josie Bloggs.ppt"
- 3) If you encounter problems, call Stephen on (763) 213-2742.
- 4) In case of insurmountable problems with dropbox, we will still accept talks on pen drives at the registration desk. But again, if you do this you need to do it AT LEAST two breaks before your session.

Session Chairs

Thank you for your willingness to help manage the scientific program. You have a critical job in keeping presenters within the time allotted to their talk. At the break prior to your session, please verify that all talks are loaded, that you have a timer handy, and contact all speakers to confirm the presenter's name and pronunciation. At the beginning of the Session, please welcome the audience and presenters and announce the Session's title (e.g., Breeding Biology or Special Paper Session: Seabird Restoration). Explain to the speakers that they will be given 5- and 2-minute warnings near the end of their talk. At the 10-minute mark, please stand in a location visible to the speaker with the 5-min warning card as a notice to the speaker and the audience that it's time to wrap up. At the 13-minute mark, it's time to communicate a more forceful warning by waving the 2-minute warning card. At the 15-minute mark, thank the speaker, and begin your introduction of the next speaker. In the event of a last-minute cancellation, do not move the other talks up a slot and finish early. Instead, leave the cancelled speakers slot as time for discussion so that those in other sessions that have planned on attending specific talks later in the session do not get thrown off. If you have any questions, please ask David Craig, Scientific Program Chair.

Student Presentation Award Judges

Thank you, judges, for volunteering to give valuable feedback to students as they develop their scientific communication skills. At the beginning of the conference, judges will meet to be assigned student talks and posters to evaluate. Judges will be given their choice of electronic or paper score sheets. Please submit paper score sheets to the Registration Desk as soon as possible after you score a talk or poster. Awards for the best oral and poster presentations will be presented during the party on Saturday evening.

PLENARY SPEAKERS



Dr. Anthony J. Gaston was recognized in 2014 with a Lifetime Achievement Award for nearly thirty years of leadership and participation in the Pacific Seabird Group, for decades of research on the ecology of seabirds for Environment Canada and inspiring members young and old in the conservation and study of seabirds. Although Tony was able to accept his 2014 award by way of a video-conference this is the first time he has been available for plenary talk. Please read *Pacific Seabirds* 41:18-20 for a fuller account of Dr. Gaston's scientific contributions and a rich trove of stories, quotes, and acknowledgement of the extraordinary impact he has had on our community. In brief Tony and his co-authors have an impressive publication record, with 200 + peer-reviewed papers, the majority of which are on marine birds, and four books on marine birds including the scientific monographs *The Thick-billed Murres of Prince Leopold Island*, *The Ancient Murrelet: a Natural History in the Queen Charlotte Islands*, *Bird Families of the World - The Auks: Alcidae*, and a popular account of seabird biology *Seabirds: A Natural History*. Before retiring in 2014 Tony supervised or co-supervised 11 M.Sc. students and six Ph.D. students in Canada, plus three students overseas. From 1999-2015, Tony was the Editor-in-Chief or Managing Editor for *Marine Ornithology* and will present his perspective on "Some Important and Unresolved Problems in Seabird Science."



Dr. Helen F. James is a leading paleo-ornithologist, a fellow of American Academy for the Advancement of Science, and the Curator of Birds for the Smithsonian National Museum of Natural History where she oversees one of the largest collections of birds in the world. Among her collection are 640,000 modern specimens including the seabirds from historic Pacific Ocean Biological Survey Program as well as more than 80,000 bird fossils, many of which she helped dig up over the past four decades in dormant volcanoes of Hawai'i and other Pacific islands. Her 90+ peer-reviewed journal articles include many on seabirds with innovative work in the development of methods to analyze both evolutionary systematics and paleoecology. For example using millennial-scale isotope records of amino acids in bone collagen in the Hawaiian Petrel (*Pterodroma sandwichensis*), she and her colleague showed broad-scale trophic shifts in the pelagic North Pacific. Using ancient DNA she found genetic stability in the same petrel population over 3,000 years of population history despite demographic declines. In her plenary "Museum Specimens of Seabirds as Ecological Archives" James will draw attention to the unique potential of specimen-based seabird research to contribute to understanding needed to manage seabird resources in the Anthropocene.



Sabra Kauka is a revered kumu (teacher) on Kauaʻi. A graduate of Kamehameha Schools and the University of Hawaiʻi at Manoa, she teaches Hawaiian Studies and Hula at Island School, and coordinates the Kauaʻi Department of Education Hawaiian Studies. She teaches kapa, lei making, lauhala weaving and feather work. Sabra was named a 2017 Na Wahine Alakaʻi O Kauaʻi (Women Leaders of Kauaʻi) by the YWCA of Kauaʻi. She's the immediate Past President of Napali Coast Ohana, which care takes the ancient village and valley of Nuʻalolo Kai. She's also a Past President and current board member of Garden Island Resource Conservation & Development, Inc. Sabra has a life-long fascination with native birds. She is also an integral part of the annual Shearwater Blessing Ceremony organized by the Kauaʻi Endangered Seabird Recovery Project and the Save Our Shearwaters Program, where she offers a pule (Hawaiian prayer) to rehabilitated endangered seabirds being released in front of local 4th grade school children.



Dr. Mark Rauzon is a geography professor at Laney College in Oakland, California, and wildlife biologist specializing in seabird conservation via vertebrate predator control and artificial habitat creation. He is currently Vice-Chair for Conservation of the Pacific Seabird Group, a past PSG Chair (1995), and recipient of the 2006 PSG Special Achievement Award for his contributions to island restoration and the conservation of seabird biodiversity. Mark works closely with Point Blue on San Francisco Bay cormorant issues. He is a bird photographer and writer, whose book *Isles of Amnesia: The History, Geography, and Restoration of America's Forgotten Pacific Islands*, published in 2017, is about island conservation in the American tropical Pacific. Rauzon's book draws attention to the Smithsonian's Pacific Ocean Biological Survey Program (POBSP) which ran from 1962 to 1969 in which seventy scientists and graduate students traveled to U.S. outlying islands in the Pacific Ocean to band birds, conduct surveys, inventory flora and fauna, and collect samples. Rauzon's research into the POBSP led to the release of many of the military's documents related to the project and his findings indicate some scientists may have been exposed to materials used in biowarfare research. A lot of the POBSP seabird data have never been fully analyzed and it is hoped Rauzon's talk "The Pacific Project - Secret Monitoring of Seabirds and Biowarfare Testing" may animate scientific interest in potentially re-creating some of the original surveys to assess how seabird communities have changed since the study.

PSG 2019 LIFETIME ACHIEVEMENT AWARD RECIPIENTS

Dr. David Cameron Duffy



Photo: © Pacific Rim Conservation

David Duffy is currently a professor of botany, and a graduate professor of zoology, ecology, evolution and conservation biology at the University of Hawaii at Mānoa. Dave currently directs the Pacific Cooperative Studies Unit, which manages over 300 employees and over \$14 million in projects to conserve the resources of Hawaii and other Pacific Islands. His research interests vary widely by ecosystem and organism, but his focus is on how natural environments

respond to perturbations, either natural or man-made, at scales ranging from the individual through the landscape. These responses can offer clues on how to manage or restore natural environments.

Duffy started his career helping at the Children's Science Center at the American Museum of Natural History in New York when he was 9, then graduated to field work at the Museum's Great Gull Island Project when he was 13. Field trips to Yucatán and Colombia as a Harvard undergraduate ignited his interest in tropical biology while stints in Galápagos, Costa Rica and Africa made it clear how fragile tropical ecosystems are. His work has included the effect of El Niño on seabirds in Peru, as well as fishery interactions with seabirds in Peru, South Africa, Galápagos and Hawaii. In Alaska, he examined the effects of the Exxon Valdez oil spill and climate shift on seabirds in Prince William Sound, and he led a group that examined why seabirds failed to recover from the oil spill. Most recently, he has become interested in how to shape management and science to respond to the problem of invasive alien species in Hawaii. He has continued to be involved in a study of the winter migration of Arctic and Aleutian Terns and their relation to oceanographic features.

Dave served on the PSG EXCO in 1996-97 as the Alaska representative and has been very supportive of all of PSG's conservation efforts in Alaska and Hawaii over the years. Dave has been a regular participant at many PSG annual meetings over the years and continues to keep us all informed about El Niño and La Niña predictions via the PSG Listserve.

In Hawaii, Dave has written several reviews of seabird management and conservation science. He has also been a prominent leader in the invasive species committees, a uniquely Hawaiian creation. He was also principal investigator of a biocomplexity project on avian malaria, examining whether new approaches to science might yield answers to the biggest threat to the islands' endangered forest birds.

In recognition of major contributions to seabird ecology and science-based efforts to conserve seabirds, the Pacific Seabird Group honors David Duffy with a Lifetime Achievement Award.

PSG 2019 LIFETIME ACHIEVEMENT AWARD RECIPIENTS

Dr. Elizabeth Nell Flint



Elizabeth (Beth) Flint is the Supervisory Wildlife Biologist for the U.S. Fish and Wildlife Service at the Pacific Remote Islands National Wildlife Refuge Complex, and the Seabird Coordinator for the Pacific Islands Refuges, a position she has held for the past 28 years. She is responsible for monitoring and protecting the millions of individuals of the 25 species of seabirds nesting at the refuges and planning and implementing the biological monitoring, research, recovery, restoration, and management programs in the Pacific Remote Islands complex. The region that Beth is responsible for is arguably the most important area for tropical seabirds worldwide and Beth has contributed immensely to their protection and conservation.

Beth received her Ph.D. in Biology from UCLA in 1985 where her work focused on Sooty Terns and she has authored dozens of scientific publications. But most importantly, she has served as a role model and mentor for hundreds of nascent seabird biologists over the years. You would be hard-pressed to find a seabird biologist in the Pacific who has not worked with, or benefited from, Beth's knowledge. She is a passionate advocate for habitat restoration and protection, particularly when it comes to the removal of invasive species and has led the charge on multiple complex eradication projects that collectively benefit millions of seabirds across the U.S. Tropical Pacific (Palmyra and Midway Atoll). Her knowledge of the life history of tropical seabirds and how to integrate management to benefit them, is unparalleled. Beth has been a long-time member of the Pacific Seabird Group and has dedicated her life and career to seabird conservation.

In recognition of mentorship to early career seabird biologists and unwavering dedication to protect and conserve seabirds across the tropical Pacific, the Pacific Seabird Group honors Beth Flint with a Lifetime Achievement Award.

DETAILED SCHEDULE

Thursday 28 February 2019			
0700-1700	Registration Desk open (Conference room lobby)		
800	Welcome		
	Special Message from Governor David Ige (by Carrice Gardner)		
	PLENARY 2: Dr. Mark Rauzon, Special Invitation		
815	THE PACIFIC PROJECT - SECRET MONITORING OF SEABIRDS AND BIOWARFARE TESTING		
	(Jasmine 1 & 2 Ballroom)		
0930-1000	Coffee Break		
	Jasmine 1 & 2	Jasmine 3	Orchid 1 & 2
	Plastic Ingestion in Seabirds and its Chemical Effects Chair: Yutaka Watanuki	Special Paper Session 1 Cultural Chair: Makaala Kaameana	Behavior & Physiology Chair: Jean-Baptiste Thiebot
1000	EXPERIMENTAL EVIDENCE OF ACCUMULATION OF PLASTIC-DERIVED CHEMICALS INTO SEABIRDS' TISSUE Kosuke Tanaka	LOCAL ECOLOGICAL KNOWLEDGE AND PERCEPTIONS OF SMALL-SCALE FISHERS ON NON-TARGET TAXA CONSERVATION IN CHILE Cristián G. Suazo	MOONLIGHT AFFECTS COLONY ATTENDANCE AND NOCTURNAL FORAGING BEHAVIOR OF THE WEDGE-TAILED SHEARWATER (ARDENA PACIFICA) Andreas Ravache
1015	DEVELOPING ECOSYSTEM METRICS OF PLASTIC INGESTION BY MAIN HAWAIIAN ISLAND SEABIRDS David Hyrenbach	ANCESTRAL AND CONTEMPORARY BIOCULTURAL INTERACTIONS BETWEEN ALBATROSSES AND HUMAN BEINGS IN THE SUB-ANTARCTIC REGION Jaime Ojeda	WHY DO ANCIENT MURRELETS FROM THE SAME COLONIES WINTER 8000 KM APART? Allison Patterson*
1030	POST-RELEASE SURVIVAL OF OILED AND NON-OILED AQUATIC BIRDS REHABILITATED IN CALIFORNIA 1997-2011 Rebecca Duerr	ETHNO-ORNITHOLOGY IN RAPA NUI (EASTER ISLAND): THE IMPORTANCE OF SEABIRDS FOR CONSERVATION AND LANGUAGE STRENGTHENING Marcelo Flores	QUANTIFYING THE PROSPECTING BEHAVIOR AND BREEDING NETWORKS OF TERNS NESTING IN EPHEMERAL HABITATS Don Lyons
1045	NESTLING OF SEAGULL AS AN INDICATOR OF RECENT CHEMICAL CONTAMINATION IN THE MARINE ENVIRONMENT Sang Hee Hong	COLLECTING FEATHERS AND CREATING KAHILI AS HAWAIIAN CULTURAL PRACTICE Shad Kane	POSITIVE TRENDS IN RECRUITMENT AND REPRODUCTIVE SUCCESS OF 'UA'U (PTERODROMA SANDWICHENSIS) ON LEEWARD HALEAKALĀ Martin Frye
1100	PLASTIC INGESTION IN NORTHERN FULMARS (FULMARUS GLACIALIS) CAPTURED IN FISHERIES Stacy Schuur	TRIBAL-FEDERAL COLLABORATION ON EXPERIMENTAL HARVESTS OF GULL EGGS IN GLACIER BAY NATIONAL PARK Tania Lewis	TEMPORAL DYNAMICS OF NUTRITIONAL STRESS AND DIET OF RHINOCEROS AUKLETS BREEDING ON TWO DISTANT COLONIES IN JAPAN Ui Shimabukuro*
1115	PARASITES AND MICROPLASTICS OF SEABIRDS FROM THE WESTERN ALEUTIAN ISLANDS, AK Kate Sheehan		MIGRATION ROUTES AND STOPOVER AREAS OF LEACH'S STORM PETRELS OCEANODROMA LEUCORHOA Ingrid Pollet (Dave Shutler)
1130	MICROPLASTIC INGESTION BY PACIFIC SAND LANCE (AMMODYTES PERSONATUS) IN AN IMPORTANT BIRD AREA AND MIGRATORY BIRD SANCTUARY IN THE SOUTHERN SALISH SEA Douglas Bertram	Human Dimensions of Seabird Conservation Chair: Hannah Nevins	A MODEL TO ESTIMATE SEABIRD FIELD METABOLIC RATES Ruth Dunn*
		CHALLENGES AT SEA: DO SUSTAINABILITY STANDARDS BENEFIT SEABIRDS? Hannah Nevins	
1145	USING AGE TO ASSESS RETENTION TIME OF INGESTED PLASTIC IN SEABIRDS Tessa Nania*	SEABIRDS, FERAL CATS, & PEOPLE - WORKING TOWARD BALANCE, STRIVING FOR HARMONY Jay Penniman	
1200-1300	Boxed lunch and coffee - pick up from Naupaka terrace		
1200-1300	Predator Control Workshop	Former Chairs Lunch (invite only, Ginger)	Early Career Scientist Panel
	Jasmine 1 & 2	Jasmine 3	Orchid 1 & 2
	Restoration of Procellariiform Seabirds Chairs: Young & VanderWerf	Human Dimensions of Seabird Conservation Chair: Hannah Nevins	Conservation Chair: Don Lyons
1330	SEABIRD RESPONSE TO AN ON-GOING RAT ERADICATION PROJECT ON LEHUA ISLET, KAUAI Andre Raine	LIVING WITH SEABIRDS IN A COMPLEX LANDSCAPE: JUAN FERNÁNDEZ ISLANDS, CHILE Michelle Hester	SEASONAL AND ANNUAL CHANGES IN MARBLED MURRELET ABUNDANCE AND DISTRIBUTION IN PUGET SOUND Scott Pearson
1345	TRANSLOCATION OF HAWAIIAN SEABIRDS TO HIGH ISLANDS TO MITIGATE THE EFFECTS OF CLIMATE CHANGE Eric VanderWerf	LASERS, DIVERTERS AND POWER LINE REMOVALS: COST EFFECTIVE SOLUTIONS TO KAUAI'S SEABIRD POWER LINE MORTALITY CRISIS Marc Travers	PIGEON GUILLEMOT'S REBOUND AS INTRODUCED MINK ARE REMOVED Sam Stark *
1400	ONE PETREL, ONE SHEARWATER, STORIES OF PROGRESS IN RESTORATION ON MAUI AND MOLOKAI Jay Penniman	CHALLENGES AND LESSONS LEARNED IN ADDRESSING HUMAN HARVEST OF PINK-FOOTED SHEARWATERS ON ISLA MOCHA, CHILE Verónica López	ENGAGING PILOTS TO PROTECT SEABIRD COLONIES ON THE CALIFORNIA COAST: LESSONS LEARNED FROM TEN YEARS OF OUTREACH AND EDUCATION Wendy Kordesch

Thursday 28 February 2019 (cont)			
	Jasmine 1 & 2	Jasmine 3	Orchid 1 & 2
	Restoration of Procellariiform Seabirds Chairs: Young & VanderWerf	Human Dimensions of Seabird Conservation Chair: Hannah Nevins	Conservation Chair: Don Lyons
1415	A CRITICALLY ENDANGERED SEABIRD SPECIES FAILS TO RESPOND TO ERADICATIONS OF MULTIPLE INVASIVE PREDATORS Johannes Fischer*	COOPERATIVE MONITORING AND OUTREACH EFFORTS LEAD TO DECLINING HUMAN DISTURBANCE TO SEABIRD NESTING COLONIES Cassie Bednar	SEABIRD RESPONSES TO INVASIVE MAMMAL REMOVAL AND THEIR INFLUENCE ON TERRESTRIAL AND NEARSHORE ISLAND ECOSYSTEM RECOVERY Holly Jones
1430	RESULTS OF A GAP ANALYSIS FOR SEABIRD MONITORING IN THE U.S. TROPICAL PACIFIC Lindsay Young	UNMANNED AIRCRAFT SYSTEMS AND SEABIRD INTERACTIONS Karen Reyna	ECOSYSTEM-LEVEL CHANGES IN THE NORTH AMERICAN TUFTED PUFFIN BREEDING POPULATION Scott Pearson
1445	CHANGES IN PREDATOR ACTIVITY AND HAWAIIAN PETREL REPRODUCTIVE SUCCESS IN RESPONSE TO LANDSCAPE-LEVEL PREDATOR CONTROL Rachel Sprague	HUMAN PRESENCE NEAR WEDGE-TAILED SHEARWATER BURROWS AND ITS IMPACT ON NESTING SUCCESS Jessica Idle*	MARINE PROTECTED AREAS (MPAs), OCEAN WILDERNESS AND SEABIRDS OFF NORTHERN PAPUA NEW GUINEA (PNG): MULTI-YEAR SURVEYS, SOCIO-ECONOMICS AND ECOLOGY Falk Huettmann
1500	Coffee Break		
	Jasmine 1 & 2	Jasmine 3	Orchid 1 & 2
	Restoration of Procellariiform Seabirds Chairs: Young & VanderWerf	Human Dimensions of Seabird Conservation Chair: Hannah Nevins	Conservation Chair: Caroline Fox
1530	ESTIMATES OF NEWELL'S SHEARWATER (PUFFINUS NEWELLI) AND HAWAIIAN PETREL (PTERODROMA SANDWICHENSIS) ABUNDANCE AND DISTRIBUTION BASED ON DATA COLLECTED AT SEA, 1998-2017 Trevor Joyce	SOLUTIONS TO PROTECT STORM-PETRELS BETWEEN MINING DEVELOPMENT, MILITARY EXERCISES AND AN ARTIFICIALLY ILLUMINATED LANDSCAPE Rodrigo Silva (Brad Keitt)	SO REALLY, WHAT ARE MAJOR THREATS TO SEABIRDS? COMPREHENSIVE GLOBAL ASSESSMENT Yasuko Suzuki
1545	DETERMINANTS OF POST-FLEDGING SURVIVAL IN TRANSLOCATED ALBATROSS CHICKS Tomohiro Deguchi	WRAP-UP: Human Dimensions	TO CATCH A KILLER: EFFECTIVELY TARGETING SEABIRD HUNTING CATS ON KAUA'I Kyle Pias
1600	WRAP-UP: Restoration	WRAP-UP: Human Dimensions	THE ALBATROSS DEMOGRAPHY PROGRAM: AN UPDATE Roberta Swift
1615	Break		
1630-1730	PLENARY 3: Dr. David Duffy, Lifetime Achievement Award ONCE AND FUTURE SEABIRDS OF HAWAI'I. (Jasmine 1 & 2 Ballroom)		
1730-1830			Wildlife Acoustics Workshop
1730 - 2030	Shopping Time with Vendors		
1830 - 2030	Poster Reception - Jasmine 1 & 2 Ballroom		

Friday 1 March 2019			
0730-1700	Registration Desk open (Conference room lobby)		
0700-0800	Yoga with Yuki - free on the beach (if fine) or in the Hale (if wet)		
815	Opening Remarks		
830	PLENARY 4: Dr. Helen James, Special Invitation MUSEUM SPECIMENS OF SEABIRDS AS ECOLOGICAL ARCHIVES (Jasmine 1 & 2 Ballroom)		
930	Coffee Break		
	Jasmine 1 & 2	Jasmine 3	Orchid 1 & 2
	Specimen-based Historical Research Chairs: James & Ostrom	Breeding Biology Chair: Kathy Kuletz	Conservation Biology Chair: Lindsay Young
1000	QUANTIFYING PATTERNS OF INTRASPECIFIC FORAGING VARIATION IN PELAGIC SEABIRDS PAST AND PRESENT Sam Rossman	A SEASON OF 'MURRE-TH': INCREASED REPRODUCTION OF COMMON MURRES (URIA AALGE) AT YAQUINA HEAD COLONY, OREGON, USA, FOLLOWING CONSECUTIVE FAILED BREEDING YEARS. Jessica Porquez	ENDANGERED PERUVIAN DIVING-PETREL BREEDING POPULATION INCREASING DRAMATICALLY ON ITS MAIN BREEDING SITE IN CHILE Coral Wolf
1015	ORNITHOGENIC SOILS AS A LONG-TERM 'BIOLOGICAL ARCHIVE' OF ADÉLIE PENGUIN (PYGOSCELIS ADELIAE) TISSUES IN ANTARCTICA Steve Emslie	SOME HARD-WORKING CASPIAN TERNS TAKE A SABBATICAL Kirsten Bixler	REPORT ON THE SEABIRD RECOVERY EFFORT ON DESECHEO ISLAND, PUERTO RICO Dena Spatz
1030	GENOME-WIDE DATA REVEAL THE DEEP EVOLUTIONARY HISTORY OF OCEANIC SEABIRDS (PROCELLARIIFORMES) Andrea Estandía*	FACTORS ASSOCIATED WITH MARBLED MURRELET (BRACHYRAMPHUS MARMORATUS) NESTING SUCCESS IN WESTERN OREGON Lindsay Adrean	GLOBAL META-POPULATION VIABILITY ANALYSIS DETERMINES RELATIVE EXTINCTION RISK AMONG THREATENED SEABIRDS Donald Croll
1045	DECADAL- AND MILLENIAL-SCALE FORAGING HABITS OF THREE HAWAIIAN SEABIRDS: AMINO ACID $\delta^{15}N$, $\delta^{13}C$, AND δD ANALYSES Kaycee Morra	WHAT'S GOING ON WITH SEABIRDS IN THE PRIBILOFS?: PUTTING RECENT POOR BREEDING PERFORMANCE INTO A BROADER TEMPORAL AND SPATIAL PERSPECTIVE Marc Romano	HOW DO SEABIRDS PERCEIVE LIGHT? SPECTRAL EFFECTS ON THE TEMPORAL SENSITIVITY OF HAWAIIAN SEABIRDS Hannah Moon*
1100	A COMPARISON OF THE ISOTOPIC NICHES OF TWO ALCIDS OVER ~1500 YEARS OF CHANGE IN THE CALIFORNIA CURRENT Sarah Thomsen	MALE STREAKED SHEARWATERS (CALONECTRIS LEUCOMELAS) ADJUSTED THEIR TRIP DURATIONS BASED ON PRESENCE OR ABSENCE OF PAIRED FEMALES Miho Sakao*	ALEUTIAN TERN SURVEYS ON SAKHALIN ISLAND, RUSSIA Heather Renner (Don Lyons)
1115	BYCATCH OF BANDED SEABIRDS IN THE PACIFIC OCEAN, 1945-2018 Autumn-Lynn Harrison	BREEDING COLONY PREDATION AND REPRODUCTIVE SUCCESS IN LEACH'S STORM-PETRELS (OCEANODROMA LEUCORHOA) Rielle Hoeg*	RESTORING OFFSHORE ISLANDS: LESSONS LEARNED FROM LEHUA, HAWAII Patricia Baiao (Mele Khalsa)
1130	RAT AND FERAL CAT DIETARY SPECIALIZATION ON ENDANGERED SEABIRDS: IMPLICATIONS FOR PROTECTING SEABIRD POPULATIONS ON KAUAI Ryan Trimboth*	TIME AFTER TIME: EARLY NEST INITIATION IS ASSOCIATED WITH HIGH REPRODUCTIVE SUCCESS AND PROBABILITY OF RE-NESTING BY CASPIAN TERNS IN THE COLUMBIA RIVER ESTUARY Olivia Bailey*	
1145	ENVIRONMENTAL VARIANCE AND DIET-DEPENDENT SEXUAL ORNAMENTS IN BROWN BOOBY POPULATIONS Nathan Michael *	PREY SWITCHING AND CHANGE OF PRODUCTIVITY OF RHINOCEROS AUKLETS: LINK WITH DECADAL CLIMATE REGIME SHIFT Yutaka Watanuki	
1200-1300	Lunch (PSG Members Meeting--All Welcome) - pick up boxed lunch from Naupaka Terrace		
	Jasmine 1 & 2	Jasmine 3	Orchid 1 & 2
	Foraging Ecology Chair: Dan Barton	Breeding Biology Chair: Marc Romano	Tools & Techniques Chair: Peter Paton
1330	PREDATION BY SEABIRDS ON SALMONIDS IN THE HUMBOLDT BAY REGION REVEALED BY COLONY RECOVERIES OF PIT TAGS Daniel Barton	UNRAVELING THE PACIFIC NORTHWEST RHINOCEROS AUKLET MORTALITY EVENT OF 2016 Tom Good	JOINING THE AIRSPACE ABOVE SEABIRD COLONIES - DRONE AERIAL PHOTOGRAPHY IN COASTAL OREGON Timothy Lawes
1345	DIVING IN! FIRST REPORT OF THE UNDERWATER BEHAVIOR OF CHRISTMAS SHEARWATERS (PUFFINUS NATIVITATIS) ON KURE ATOLL Ilana Nimz*	CLOSE COLONY MONITORING UNCOVERS NEW THREATS TO NESTING SUCCESS IN THE CRITICALLY ENDANGERED CHINESE CRESTED TERN Yiwei Lu	A NEW PROTOCOL FOR MONITORING TUFTED PUFFINS IN THE ALASKA MARITIME NATIONAL WILDLIFE REFUGE Aaron Christ
1400	TROPHIC ECOLOGY OF TWO SYMPATRIC ENDANGERED SEABIRDS: THE HEERMANN'S GULL (LARUS HEERMANNI) AND THE ELEGANT TERN (THALASSEUS ELEGANS) IN THE GULF OF CALIFORNIA Rigoberto Rosas-Luis	NEST SITE SELECTION AND REPRODUCTIVE SUCCESS IN A MIXED BREEDING COLONY OF CHINESE CRESTED TERNS AND GREATER CRESTED TERNS Zhongyong Fan	COLONIAL WATERBIRD MONITORING USING UAS IN THE COLUMBIA RIVER BASIN Aaron Turecek

Friday 1 March 2019 (cont)			
	Jasmine 1 & 2	Jasmine 3	Orchid 1 & 2
	Foraging Ecology Chair: Dan Barton	Breeding Biology Chair: Marc Romano	Tools & Techniques Chair: Peter Paton
1415	JELLY BELLIES: WHY DO MARINE ENDOTHERMS EAT JELLYFISH? Jean-Baptiste Thiebot	PELAGIC CORMORANT REPRODUCTIVE STATUS – 2018 Season Ron LeValley	UNMANNED AERIAL VEHICLE USE IN NEST SITE CENSUS OF GREATER CRESTED TERN AND CRITICALLY ENDANGERED CHINESE CRESTED TERN Hsiao-Wei Yuan
	Jasmine 1 & 2	Jasmine 3	Orchid 1 & 2
	Management Chair: Ed Melvin	Discussion Session Moderator: Adrian Gall	Tools & Techniques Chair: Rachael Orben
1530	THE IMPACTS OF LIGHT POLLUTION ON WEDGE-TAILED SHEARWATERS ALONG SOUTHEASTERN O’AHU Brooke Friswold*	HOT TOPICS IN THE EASTERN PACIFIC	USING UNMANNED AIRCRAFT SYTEMS FOR MONITORING CALIFORNIA LEAST TERN NESTING COLONIES AT NAVAL BASE VENTURA COUNTY Martin Ruane
1545	SEABIRD BYCATCH IN PURSE SEINE FISHERIES: THE CASE OF THE MODIFIED PURSE SEINE AS A NOVEL MITIGATION MEASURE Cristián Suazo		ACOUSTIC DETECTIONS OF ASHY STORM- PETREL ON SAN NICOLAS ISLAND, CALIFORNIA Martin Ruane
1600	MODELLING CANDIDATE MARINE CRITICAL HABITAT FOR MARBLED MURRELET (BRACHYRAMPHUS MARMORATUS) IN THE NORTHERN SALISH SEA Clifford Robinson (Douglas Bertram)		ACOUSTIC SURVEYS OF STORM-PETRELS IN THE CALIFORNIA COASTAL NATIONAL MONUMENT: DETECTION AND QUANTIFICATION OF VOCAL ACTIVITY Matthew McKown
1615	THE RESPONSE OF CASPIAN TERNS TO MANAGED REDUCTIONS IN NESTING HABITAT IN THE COLUMBIA PLATEAU REGION, WASHINGTON, USA Ethan Schniedermeier		USING DIGITAL VHF TELEMETRY TO MONITOR OFFSHORE MOVEMENTS OF TERNS AND PLOVERS ALONG THE ATLANTIC COAST Peter Paton
1630	PREDATOR CONTROL ON A NAVY INSTALLATION: KEEPING THE ENEMY AT BAY Marcus Collado		SAMPLING THEIR SURROUNDINGS: USING SEABIRDS AS OCEANOGRAPHIC SAMPLING PLATFORMS Rachael Orben
1645	THE EFFECTS OF RAPID DESTABILIZATION OF COASTAL MARINE ECOSYSTEMS Douglas Causey		USING LIFE HISTORY TO INFORM MARINE SPATIAL PLANNING FOR THE PROTECTION OF WIDE-RANGING PELAGIC SEABIRDS Melinda Conners
1700			MEASURING RELATIVE DISTURBANCE RISK TO MARINE WILDLIFE IN NORTHERN CALIFORNIA Claire Nasr*
1800-2000	STUDENT MENTORING RECEPTION - Jasmine 3		
1900-2100	Documentary Film Festival (Jasmine 1 & 2)		

Saturday 2 March 2019			
0730-1700	Registration Desk open (Conference room lobby)		
815	Opening Remarks & Special Message from Congresswoman Tulsi Gabbard (by Kaulana Finn)		
830	PLENARY 5: Dr. Tony Gaston SOME IMPORTANT AND UNRESOLVED PROBLEMS IN SEABIRD SCIENCE (Jasmine 1 & 2 Ballroom)		
930	Coffee Break		
	Jasmine 1 & 2	Jasmine 3	Orchid 1 & 2
	Climate Change Chair: Gordon Willson-Naranjo	Population Biology Chair: Casey Youngflesh	Tracking and Distribution Chair: Rob Suryan
1000	WHAT DO LARGE SCALE REGIME SHIFTS IN THE NORTH ATLANTIC MEAN FOR ICELANDIC SEABIRDS? Freydis Vigfusdottir	A (12-MINUTE) REVIEW OF NEARLY 5-DECADES OF CALIFORNIA BROWN PELICAN BREEDING PERFORMANCE AT CHANNEL ISLANDS NATIONAL PARK, 1969 - 2018 Michael Parker	HABITAT PREFERENCES OF CASSIN'S AUKLETS REVEALED THROUGH GPS TRACKING Alice Domalik
1015	INDIVIDUAL REPRODUCTIVE STRATEGIES OF HEERMANN'S GULL (LARUS HEERMANNI), NESTING IN RASA ISLAND, GULF OF CALIFORNIA, MEXICO Gabriela De la Cruz Pino*	DECOMPOSING AGE-SPECIFIC REPRODUCTIVE PERFORMANCE IN A META-POPULATION OF ADÉLIE PENGUINS: COLONY SIZE MATTERS Peter Kappes*	DOCUMENTATION OF ENDANGERED 'UA'U (PTERODROMA SANDWICHENSIS) ON MAUNAKEA, FIRST RECORD SINCE 1963 Bret Mossman*
1030	THE "NEW NORMAL" OF SEABIRD MASS MORTALITY EVENTS Jackie Lindsey	MULTI-DECADAL ASSESMENT OF PENGUIN DIET FROM SPACE - LINKING ANTARCTIC FOOD WEB DYNAMICS TO POPULATION CHANGE Casey Youngflesh	RED-THROATED LOON WINTER HABITAT CHARACTERISTICS Nicole Kleponis*
1045	THE ECTOTHERMIC VISE: REGULATION OF SEABIRDS BY FORAGE FISH IN HOT WATER John Piatt	PRELIMINARY EFFECTS OF THE 2016-2017 ERUPTIONS OF BOGOSLOF VOLCANO ON AT-SEA DENSITIES OF LOCAL SEABIRDS Gary Drew	A SPATIAL ASSESSMENT OF ALBATROSSES, FISHERIES, AND BYCATCH EVENTS IN COASTAL BRITISH COLUMBIA Caroline Fox
1100	SEABIRD DISTRIBUTION RELATIVE TO BIOPHYSICAL OCEANOGRAPHIC PROPERTIES IN NORTH PACIFIC ECOSYSTEMS Kathy Kuletz	IMPACTS OF THE DECEMBER 2016 TO AUGUST 2017 BOGOSLOF ISLAND ERUPTION EVENT ON A MAJOR ALASKAN SEABIRD COLONY Nora Rojek	MODELING AT-SEA DISTRIBUTIONS OF MARINE BIRDS ON THE U.S. PACIFIC OUTER CONTINENTAL SHELF Jeffery Leirness
1115	ECOSYSTEM RESPONSE TO A MARINE HEAT WAVE IN THE GULF OF ALASKA: SEABIRDS ARE THE TIP OF THE ICEBERG Rob Suryan	COMMON MURRE AND BLACK-LEGGED KITTIWAKE BREEDING FAILURES IN COOK INLET, ALASKA FOLLOWING THE NORTH PACIFIC MARINE HEAT WAVE Sarah Schoen	NON-BREEDING SEASON DISTRIBUTIONS AND THEIR RELATIONSHIP TO POPULATION GENETIC STRUCTURING IN THE RHINOCEROS AUKLET Mark Hipfner
1130	DIFFERENTIAL RESPONSE OF GULF OF MAINE SEABIRDS TO THE 2018 OCEAN HEAT WAVE Stephen Kress	EVALUATING CURRENT LIMITING FACTORS AND FUTURE THREATS TO RECOVERY OF ENDANGERED ROSEATE TERNS Jeff Spendelow	MODELING THE WINTER HABITAT USE AND MORTALITY RISKS OF CASSIN'S AUKLETS (PTYCHOORAMPHUS ALEUTICUS) AND PIGEON GUILLEMOTS (CEPPHUS COLUMBA) IN THE NORTH PACIFIC Michael Johns (Pete Warzybok)
1145	LONG-TERM TRENDS, AND POTENTIAL DRIVERS OF CHICK DIET IN FOUR TERN SPECIES IN THE GULF OF MAINE, USA Keenan Yakola*	A SPATIALLY AND LIFE-HISTORY EXPLICIT MODEL TO INFORM MANAGEMENT OF CASPIAN TERNS IN THE PACIFIC FLYWAY OF NORTH AMERICA Yasuko Suzuki	MAPPING CONSENSUS ON GLOBAL MARINE PRIORITY REGIONS: IMMEDIATE OPPORTUNITIES FOR FUTURE PROTECTION Natasha Gownaris
1200-1300	Lunch (Conservation Committee Meeting--All Welcome - pick up from naupaka terrace) Silent Auction bidding closes at 12:15!		
	Jasmine 1 & 2	Jasmine 3	Orchid 1 & 2
	Genetics Chair: Jordan Scheibe	Population Biology Chair: Casey Youngflesh	Tracking and Distribution Chair: Leigh Torres
1330	POPULATION GENETICS OF THE BAND-RUMPED STORM PETREL (OCEANODROMA CASTRO), AN ENDANGERED HAWAIIAN SEABIRD Carmen Antaky *	WHERE HAVE ALL THE BIRDS GONE?: CHANGES IN AT-SEA DENSITIES OF SEABIRDS IN KACHEMAK BAY, ALASKA FROM 1996 TO 2018 Caitlin Marsteller	DISTRIBUTION AND ABUNDANCE OF MARINE BIRDS IN AN INDUSTRIALIZED SEA: VESSEL-BASED SURVEYS IN THE GULF OF MEXICO Pamela Michael (Yvan Satgé)
1345	GENETIC ASSIGNMENT OF NORTHERN FULMAR BYCATCH REVEALS CONTRIBUTIONS FROM MAJOR BREEDING COLONIES Jessie Beck	EFFECTS OF AGING ON THE FORAGING BEHAVIOR OF A LONG-LIVED SEABIRD IN GALÁPAGOS Jennifer Howard*	INVESTIGATING ANCIENT MURRELET MOVEMENT DURING THE BREEDING SEASON USING GPS TAGS AT A COLONY IN HAIDA GWAIL, BRITISH COLUMBIA, CANADA Vivian Pattison*

Saturday 2 March 2019 (cont)			
	Jasmine 1 & 2	Jasmine 3	Orchid 1 & 2
	Genetics Chair: Jordan Scheibe	Population Biology Chair: Casey Youngflesh	Tracking and Distribution Chair: Leigh Torres
1400	PHYLOGEOGRAPHY OF A WIDESPREAD SEABIRD (ARDENNA PACIFICA) USING GENOME-WIDE MARKERS Rachael Herman *	TWENTY YEARS OF BANDING WEDGE-TAILED SHEARWATERS (ARDENNA PACIFICA, 'UA'U KANI) IN MAUI NUI Jennifer Learned	INDIVIDUAL TRACKING INFORMS EXPOSURE OF THE ENDANGERED BLACK-CAPPED PETREL TO MARINE THREATS DURING THE BREEDING SEASON Yvan Satgé
1415	USING SEQUENCE CAPTURE AND ILLUMINA SEQUENCING FOR POPULATION GENOMICS IN SEABIRDS Michael Harvey	UPDATE ON ALBATROSS POPULATION MONITORING AT MIDWAY ATOLL NWR Jonathan Plissner	BREEDING SEASON MOVEMENTS AND MARINE HABITAT USE BY THE MARBLED MURRELET (BRACHYRAMPHUS MARMORATUS) IN OREGON. Marie-Sophie Garcia-Heras
1430		INVESTIGATING ALEUTIAN TERN BREEDING ECOLOGY IN WESTERN ALASKA TO INFORM FUTURE STATEWIDE SURVEYS Kelly Nesvacil	
1445	No coffee break due to early finish		
1500 -1600	PLENARY 6: Dr. Beth Flint, Lifetime Achievement Award PINCH POINTS AND SCALE: IMAGINING BIOGEOGRAPHY FOR SEABIRDS OF THE CENTRAL PACIFIC (Jasmine 1 & 2 Ballroom)		
1600-1830	FREE TIME.		
1900 - 2100	Shopping Time with Vendors		
1900-2300	HUGE PARTY (Jasmine 1 & 2 & 3 Ballroom) Lots of Food & Drink, Soul Fire Dance Troupe, PSG Bird Fashion Show, & Roundhouse Ramblers Bluegrass Band		

DETAILS OF POSTERS

	First & Last Name	Title
1	Karel Allard	A CONSERVATION ROADMAP FOR OCEAN WANDERERS
2	Lisa Ballance	NOAA'S NATIONAL SEABIRD PROGRAM: ADVANCING CONSERVATION, SUSTAINABLE FISHERIES, AND ECOSYSTEM-BASED MANAGEMENT THROUGH A FIVE-YEAR STRATEGIC PLAN
3	Joachim Bertrands*	SEASONAL FOOD DEPLETION IN SHOREBIRD HABITATS
4	Kylee Butler	SEA BIRDS IN MAKAH CULTURE
5	Dustin Carl	POPULATION GENETIC STRUCTURE OF RED-FACED AND PELAGIC CORMORANTS IN THE ALEUTIAN AND PRIBILOF ISLANDS
6	Lauren Chamberlain	SEABIRDS SAMPLE PLASTIC POLLUTION: BONIN PETRELS (<i>PTERODROMA HYPOLEUCA</i>) AS BIOINDICATORS OF PLASTIC IN THE NORTH PACIFIC
7	Shuihua Chen	THE PHYLOGENETIC POSITION AND GENETIC EVIDENCE OF HYBRIDIZATION OF THE CRITICALLY ENDANGERED CHINESE CRESTED TERN
8	Terry Chesser	TOWARD A COMPLETE PHYLOGENY OF THE PROCELLARIIFORMES
9	Corey Clatterbuck*	CONTAMINANTS AS ECOLOGICAL TRACERS: DOES MERCURY LOAD REFLECT FORAGING HABITS OF A GENERALIST SEABIRD?
10	Robin Corcoran	STATUS AND NEST SURVIVAL OF ALEUTIAN AND ARCTIC TERNS BREEDING IN THE KODIAK ARCHIPELAGO, 2016-2018
11	Jenna Cragg	SEASONAL PATTERNS AND METRICS OF MARBLED MURRELET (<i>BRACHYRAMPHUS MARMORATUS</i>) VOCAL ACTIVITY FROM AUTONOMOUS RECORDING UNITS
12	David Craig	CALCULATING CARBON-AWARE CONFERENCE LOCATIONS FOR ANNUAL MEETINGS OF THE PACIFIC SEABIRD GROUP
13	Shannon Fitzgerald	PRELIMINARY FINDINGS ON THE DIET OF LAYSAN ALBATROSSES, <i>PHOEBASTRIA IMMUTABILIS</i> , IN THE EASTERN BERING SEA AND ALEUTIAN ISLANDS REGION
14	Clare Flynn*	DIVING DEPTHS OF CASSIN'S AUKLETS IN A CHANGING CLIMATE
15	Aran Garrod*	BEHAVIOURAL CLASSIFICATION IN SHALLOW DIVING SEABIRDS INDICATES NEW SEARCH BEHAVIOUR
16	Natasha Gownaris	SEX RATIO IS VARIABLE AND INCREASINGLY MALE-BIASED AT TWO COLONIES OF MAGELLANIC PENGUINS
17	Gi Myung Han	ASSESSMENT OF PERSISTENT, BIOACCUMULATIVE AND TOXIC SUBSTANCES (PBTS) IN BLACK-TAILED GULL EGGS FROM SOUTH KOREA
18	Haruka Hayashi*	AT-SEA FLOCK SIZE OF SEABIRDS IN THE NORTHERN BERING SEA
19	Brielle Heflin	NORTH PACIFIC PELAGIC SEABIRD DATABASE V3 – DATA COMPILATION EFFORT TO FACILITATE SPATIAL AND TEMPORAL ANALYSES OF AT-SEA MARINE BIRD SURVEYS IN THE NORTH PACIFIC
20	Elizabeth Kain	USE OF ACOUSTIC RECORDING DEVICES TO DIRECT SEABIRD MONITORING AND CONSERVATION EFFORTS ON THE ISLAND OF LĀNA'I, HAWAII
21	Joseph Krieger	SEABIRD BYCATCH AND MITIGATION EFFORTS IN ALASKA FISHERIES SUMMARY REPORT: 2007 THROUGH 2017
22	Caitlin Kroeger*	AT-SEA ENERGETICS OF CAMPBELL AND GREY-HEADED ALBATROSSES IN RELATION TO SOUTHERN OCEAN WIND VARIABILITY
23	Max Levy*	CONSTRUCTING THE COMPLETE PROCELLARIIFORM TREE OF LIFE USING GENOME-SCALE DATA
24	Kirsten Lindquist	ASSOCIATIONS AMONG MASS MORTALITY EVENTS, SEABIRD DEMOGRAPHY, AND OCEAN CLIMATE TRENDS IN CENTRAL CALIFORNIA
25	Janelle Lopez	SEASONAL CHANGES IN TERN COLONY ATTENDANCE AND LOCATION AT A PREDATOR-RICH MAINLAND AREA IN SOUTHEAST ALASKA
26	Jessie McIntyre*	NOVEL USE OF MINK FARMS AND CONTAMINANT BIOTRANSPORT BY GULLS IN SOUTHWESTERN NOVA SCOTIA, CANADA
27	Edward Melvin	LESSONS FROM SEABIRD CONSERVATION IN ALASKA LONGLINE FISHERIES
28	Avery Nagy-MacArthur*	FORAGING MOVEMENT AND DIET OF TWO SYMPATRICALLY-BREEDING TERN SPECIES ON COUNTRY ISLAND, NS

	First & Last Name	Title
29	Ki-Baek Nam	POPULATION TRENDS OF STREAKED SHEARWATERS IN SASU ISLAND, UNDER HIGH PREDATION RISK
30	Alyssa Nelson*	QUANTIFYING TOP DOWN EFFECTS OF BALD EAGLE (<i>HALIAEETUS LEUCOCEPHALUS</i>) DISTURBANCES ON A COMMON MURRE (<i>URIA AALGE</i>) COLONY
31	Karen Oakden	WHAT'S IN A PELLET? A DIET ANALYSIS OF DOUBLE-CRESTED CORMORANTS USING PELLETS IN SOUTH HUMBOLDT BAY, CA
32	Veronica Padula*	PHTHALATE EXPOSURE IN BERING SEA SEABIRDS
33	Sonya Pastran*	HABITAT UTILIZATION OF MARBLED MURRELETS IN HAIDA GWAII, BC: USING LONG-TERM AND ADDITIONAL DATA FROM LASKEEK BAY
34	Adam Peck-Richardson	CASPIAN TERN POPULATION MONITORING:2018 UPDATE FOR THE PACIFIC COAST REGION
35	Andreas Ravache*	TAHITI PETREL (<i>PSEUDOBULWERIA ROSTRATA</i>): TRYING TO LIFTING THE VEIL ON A MYSTERIOUS AND THREATENED PACIFIC SEABIRD
36	Yvan Satgé	USING PREDICTIVE HABITAT MODELLING TO LOCATE UNKNOWN NESTING AREAS OF THE ENDANGERED BLACK-CAPPED PETREL IN THE DOMINICAN REPUBLIC
37	Matthew Saunter	ADAPTING MANAGEMENT PRIORITIES TO BUFFER AFFECTS OF CLIMATE CHANGE AT KURE ATOLL, HAWAII
38	Jordan Scheibe	NESTING ATTEMPTS AND POST-BREEDING ROOST SITE USE OF CALIFORNIA BROWN PELICANS ON EAST SAND ISLAND, OREGON
39	Susan Schubel	LEACH'S STORM-PETRELS IN THE GULF OF MAINE: CURRENT POPULATION ESTIMATES FOR THE REGION'S TWO LARGEST COLONIES
40	Stacy Schuur	POTENTIAL TO TRACE CHEMICALS IN LAYSAN ALBATROSS (<i>PHOEBASTRIA IMMUTABILIS</i>) SIBLING EGGS
41	Paula Shannon	CONTRIBUTIONS OF DIET COMPOSITION AND DAILY PROVISIONING RATES TO THE GROWTH AND SURVIVAL OF ATLANTIC PUFFIN CHICKS
42	Ui Shimabukuro*	DIVING AND FLYING ACTIVITY OF RHINOCEROS AUKLETS (<i>CERORHINCA MONOCERATA</i>) DURING THE NON-BREEDING PERIOD
43	Julie Skoglund	SURVIVAL AND NEST-SITE FIDELITY OF REHABILITATED CASPIAN TERNS IN SOUTHERN CALIFORNIA
44	Dena Spatz	CREATING A GLOBAL DATABASE OF ACTIVE SEABIRD RESTORATION PROJECTS
45	Katelyn Stoner	INFLUENCE OF BODY CONDITION AND ARRIVAL DATE ON BREEDING SUCCESS OF THE ADÉLIE PENGUIN (<i>PYGOSCELIS ADELIAE</i>)
46	Jill Tengeres*	PASSIVE MONITORING TO INVESTIGATE PREDATION PRESSURE AT ALEUTIAN TERN COLONIES IN COASTAL ALASKA
47	Jean Baptiste Thiebot	NO FLUFFY CAKES: ST. LAWRENCE ISLAND SEABIRDS RESPOND TO HISTORIC LOW WINTER SEA ICE
48	Jean Baptiste Thiebot	MULTI-YEAR TRACKING FROM TWO COLONIES HIGHLIGHTS KEY MARINE HABITATS FOR THE CONSERVATION OF RHINOCEROS AUKLETS (<i>CERORHINCA MONOCERATA</i>)
49	Karla Trigueros*	HABITAT RESTORATION FOR SEABIRDS AND NATIVE HAWAIIAN SPECIES AT HO'OKIPA - MAUI
50	Jannelle Trowbridge*	QUANTIFYING THE ABUNDANCE AND IDENTITY OF MICROPLASTICS IN BREEDING BIRDS OF THE BERING SEA
51	Makenzie Weber*	VARIATION IN PHENOLOGY AND REPRODUCTIVE SUCCESS OF THREE CORMORANT SPECIES IN CENTRAL OREGON
52	Anne Wiley	FORAGING BEHAVIOR AND REPRODUCTIVE SUCCESS OF BROWN BOOBIES (<i>SULA LEUCOGASTER</i>) ACROSS AN ENVIRONMENTAL GRADIENT
53	Rei Yamashita	OCCURRENCE OF WIDE-RANGE OF ADDITIVES IN MARINE PLATICS AND THEIR EXPOSURE TO SEABIRDS

New tools for seabird research.



Song Meter SM4 Acoustic Recorder and Kaleidoscope Pro Analysis Software

The distinct sounds emitted by wildlife provide powerful clues into species presence, populations and behaviors. The Song Meter SM4 recorder combined with the Kaleidoscope Pro Analysis software helps you interpret those clues into meaningful data for your project.

The Song Meter SM4 Acoustic Recorder

The Song Meter SM4 records wildlife sounds in any environment over long periods of time. It is compact and lightweight with multiple units easily fitting into a backpack. Its rugged polycarbonate case and integrated, lockable security cover ensure that your recorders – and your data – are always kept safe and dry.

Programming the SM4 is fast and easy. Its two integrated, low-noise microphones create recordings of exceptionally high-quality.



In addition, the SM4 can record up to 400 hours using standard alkaline batteries, reducing your number of trips to the field.

**Learn more at
wildlifeacoustics.com**

**Join us for the FREE
Song Meter SM4 Workshop:**

Thursday, 28 Feb, 5:30-6:30pm
Orchid 1 Room, Kaua'i Beach Resort



Kaleidoscope Pro analysis software



Kaleidoscope Pro can quickly analyze thousands of ultrasonic or acoustic recording files. The software detects similar vocalizations, and groups them into Clusters. This innovative feature eliminates hours of tedious listening, making it much easier to examine vocalizations and label recordings.

