

HETERO-SPECIFIC GROUP FORAGING IN PYGOSELIS PENGUINS AT KING GEORGE ISLAND, ANTARCTICA

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Group foraging brings advantages for prey searching and catching, especially when the food source is heterogeneously distributed. Penguins are highly dependent on krill, which often form large swarms. Thus, penguin individuals can increase foraging efficiency in groups. Using animal-borne cameras on 23 gentoo penguins (*Pygoscelis papua*) and 24 chinstrap penguins (*Pygoscelis antarctica*), we recorded their foraging behavior during chick guarding in two breeding seasons (2014-2015 and 2015-2016). We found that *Pygoscelis* penguins, gentoo, and chinstrap penguins often form hetero-specific foraging groups. In five gentoo penguin videos, Adélie (*Pygoscelis adeliae*) or chinstrap penguins were observed in the foraging groups (totally 18 cases). In four chinstrap penguin videos, gentoo penguins were observed in the foraging groups (totally 7 cases). We did not observe any aggressive behavior towards different species in the groups. Our results suggest that *Pygoscelis* penguins in our population have hetero-specific group foraging strategies.

2018 Pacific Seabird Group

45th Annual Meeting



Hotel Araiza Palmira
La Paz, Baja California Sur, México
21-24 FEBRUARY 2018

SPONSORS

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

Financial Support

the David &
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FOUNDATION



In-kind Support



PSG 2018 DAILY SCHEDULE OVERVIEW

Tuesday 20 February 2018

1600-1800	Early registration (Hotel Perla Lobby)
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Wednesday 21 February 2018

	Hotel Perla			Centro Cultural La Paz	Punto México Conectado
	Salón El Mechudo	Salón Madre Perla	Sala Madre Perla	Sala de Reuniones	
0700-1700	Registration Desk open (Hotel Perla Lobby)				
0800-1100	PSG EXCO	Marbled Murrelet Technical Committee	Seabird Monitoring Committee		Scripps' and Guadalupe Murrelet Technical Committees
1100 - 1200				Kittlitz's Murrelet Technical Committee	
1200-1300	BREAK				
1300-1500	PSG EXCO	Tufted Puffin Technical Committee		Aleutian Tern Technical Committee	North Pacific Albatross Working Group
1500-1600			Northeast Asia Seabird Conservation Committee		
1600-1700		USFWS Pacific Seabird Program			
1800-1900	Public Presentation - Dr. Enriqueta Velarde (Teatro Juárez- in Spanish and with ticket)				
1830-2100	WELCOME RECEPTION (Museo de la Ballena)				

Thursday 22 February 2018

	Hotel Araiza			
	Comondú	Loreto I	Loreto II	San José
0700-1700	Registration Desk open (Centro de Convenciones Las Californias – Hotel Araiza)			
0800-0830	Welcome and Opening Remarks			
0830-0930	PLENARY 1 - Dr. Juan Esteban Martínez (Loreto I-II) <i>A 25 year perspective in the decline of the critically endangered Townsend’s Shearwater</i>			
0930-1000	Coffee Break			
1000-1200	Behavior	SPECIAL PAPER SESSION 1: Seabird Restoration	Conservation Biology	WORKSHOP: Drones
1200-1330	Lunch			
1330-1500	SYMPOSIUM 1: Conservation Needs in Northwestern Mexico	Climate Change; Genetics	Contaminants	
1500-1530	Coffee Break			
1530-1615	SYMPOSIUM 1: Conservation Needs in Northwestern Mexico	Non-Breeding Biology	Contaminants; Physiology	
1630-1730		PLENARY 2 - Dr. Michael Brooke (Loreto I-II) <i>Seabird conservation on the Pitcairn Islands: 25 years of delight and despair</i>		
1730-1830	WORKSHOP: Wildlife Acoustics			
1830-2200	POSTER RECEPTION - Centro Cultural La Paz			

Friday 23 February 2018			
	Hotel Araiza		
	Comondú	Loreto I	Loreto II
0730-1700	Registration Desk open (Hotel Araiza Lobby)		
0800-1000	Meeting: Coordinating research to understand seabird bycatch in the Gulf of California purse seine fishery (San José)		
0815-0830	Opening Remarks		
0830-0930	PLENARY 3 - Dr. Stephen Votier (Loreto I-II) <i>Tracking gannets: insights from 12 years of bio-logging</i>		
0930-1000	Coffee Break		
1000-1200	SPECIAL PAPER SESSION 2: Harry Carter's Legacy	SYMPOSIUM 2: Sternula Terns	Foraging Ecology
1200-1330	Lunch (PSG Members' Meeting -- All Welcome)		
1330-1500	Management, Policy, and Planning	SYMPOSIUM 2: Sternula Terns	Foraging Ecology
1500-1530	Coffee Break		
1530-1715	Conservation Biology	SPECIAL PAPER SESSION 3: Hot Topics in the Eastern Pacific	Foraging Ecology
1700-1830	STUDENT MENTORING RECEPTION - Hotel Araiza		
1830-2100	Special and Lifetime Achievement Awards Hotel Marina		BEACH PARTY
2100-2200			

Saturday 24 February 2018			
	Hotel Araiza		
	Comondú	Loreto I	Loreto II
0730-1700	Registration Desk open (Hotel Araiza Lobby)		
0815-0830	Opening Remarks		
0830-0930	PLENARY 4 - Dr. Enriqueta Velarde (Loreto I-II) <i>Teachings of the seabirds in the Vermillion Sea</i>		
0930-1000	Coffee Break; Live Photo Auction		
1000-1130	Fisheries	Breeding Biology	Tools and Techniques
1130-1200	SPECIAL PAPER SESSION 4: Impact of Purse-Seining		
1200-1330	Lunch (Conservation Committee Meeting--All Welcome)		
1330-1500	SPECIAL PAPER SESSION 4: Impact of Purse-Seining	Breeding Biology	Tracking and Distribution
1500-1530	Coffee Break		
1530-1630	SPECIAL PAPER SESSION 4: Impact of Purse-Seining	Population Biology	Tracking and Distribution
1645-1745		PLENARY 5 - Dr. Bob Pitman (Loreto I-II) <i>Clipperton Island: Life and death of a desert tropical isle</i>	
1830-2200	BANQUET & DANCE PARTY - Galería Galería garden		

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ACKNOWLEDGEMENTS

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

Audio Visuals: UABCS and Pronatura Noroeste

Conference Planning: Justine Miller with Luana Events

Field Trip Logistics: EcoMigrations and Victor Ayala (UABCS)

Meeting Websites: Kirsten Bixler, Jane Dolliver, Anne Francis, and Joanna Smith

Program Preparation: Yuri Albores, Adrian Gall, Juliet Lamb

Program Production: Zaira Guzmán – Pragma Colour

Registration Desk: Justine Miller

Silent Auction: Chris Tyson and all the generous donors who contributed items

Student/Mentor Social: Chris Tyson

Symposium & Special Paper Session Chairs: Yuri Albores, Yuliana Bedolla, David Bird, Adrian Gall, Nina Karnovsky, Tom Ryan, and Enriqueta Velarde

General Session Chairs:

Conservation Biology - Juan Serratosa

Behavior - Cecilia Soldatini

Special Session: Seabird Restoration - Yuliana Bedolla

Symposium: Conservation needs in NW Mexico - Yuri Albores

Climate Change/Genetics - Sarah Thomsen

Contaminants and Marine Debris - Juliet Lamb

Contaminants/Physiology - Sarah Schoen

Non-breeding Biology - Horacio De La Cueva

Special Session: Harry Carter - Nina Karnovsky

Symposium: Sternula terns - Tom Ryan

Foraging Ecology 1 - Daniel Rizzolo

Foraging Ecology 2 - Fiona McDuie

Foraging Ecology 3 - Josh Adams

Management, Policy, and Planning - Roberta Swift

Conservation Biology: Hawai'i - Jenni Learned

Population Biology - Daniel Barton

Breeding Biology 1 - Fernando Solis

Breeding Biology 2 - Federico Mendez

Tools and Techniques - Rachel Orben

Fisheries - TBA

Special Session: Purse-seine by-catch - Enriqueta Velarde

Tracking and Distribution - Takashi Yamamoto

About the Front Cover:

Thanks to Uli Martínez for the design of the logo. It represents local elements and the interactions among seabirds, fish, and the ocean.



Pacific Seabird Group

PACIFIC SEABIRD GROUP EXECUTIVE COUNCIL FOR 2017–2018

Officers

Chair	Kyra Mills-Parker
Chair-elect	Adrian Gall
Past Chair	Nina Karnovsky
Vice-chair for Conservation	Mark Rauzon
Treasurer	Martin Renner
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Northern California	Anna Weinstein
Southern California, Latin America, and Hawaii	Andre Raine
Non-Pacific USA	Samantha Richman
Canada	Trudy Chatwin
Asia and Oceania	Kuniko Otsuki
Europe and Africa	Ross Wanless
Student Representative	Chris Tyson

Local Organizing Committee for the 2018 Annual Meeting

Yuri Albores-Barajas Local Committee Chair
Cecilia Soldatini, Christian Salvadeo, Horacio de la Cueva, Laura Treviño, Roberto Carmona and Sergio Flores Local Committee Co-Chairs
Adrian Gall, Chair of the Scientific Program
Kyra Mills-Parker, Chair
Martin Renner, Treasurer
Jane Dolliver, Secretary
Nina Karnovsky, Chair of the Awards Committee
Justine Miller, Conference Planner

LOCAL COMMITTEE WELCOME

The Local Committee of the 45th Annual Meeting of the Pacific Seabird Group welcomes all the participants back to Mexico, 14 years since the last meeting held here. Our intentions are to give you a taste of Mexican flavor and hospitality. The theme of this conference is “Seabirds without Borders”, and we have worked hard to bring as many people as possible from countries typically underrepresented in the annual meetings. Please take this opportunity to explore collaborations and to share experiences and results with people from different countries. This year we have approximately 250 people registered from 15 countries.

The social activities have been organized at different places throughout the city, so that people do not feel locked in a conference room all day.

Yuri Albores-Barajas

Local Committee Chair

BIENVENIDA DEL COMITÉ ORGANIZADOR LOCAL

El Comité Organizador Local de la 45 Reunión Annual del Pacific Seabird Group les da la bienvenida a México después de una ausencia de 14 años desde la conferencia anterior, que se llevó a cabo en La Paz en 2004. Nuestra intención es darles una muestra del sabor y hospitalidad de los Mexicanos. EL tema de ésta conferencia es “Aves Marinas Sin Fronteras”, y hemos trabajado arduamente para traer a investigadores y estudiantes de países normalmente subrepresentados en las reuniones anuales. Aprovechen esta oportunidad para explorar colaboraciones y compartir experiencias y resultados con personas de diferentes países.

Las actividades sociales fueron organizadas en diferentes sedes de la ciudad, para evitar estar “encerrados” en un solo lugar todo el día.

Yuri Albores.Barajas

Presidente del Comité Organizador Local



GREETINGS FROM THE PROGRAM CHAIR

Bienvenidos todos to the 45th Annual Meeting of the Pacific Seabird Group! At this year's meeting, we are celebrating the theme of **Seabirds Without Borders**, a clear statement that successful seabird research and conservation requires international collaboration. Our Scientific Program (156 oral and 42 poster presentations) is evidence that the participants at this meeting know how to reach across borders, and even across oceans, to work together.

A primary goal of this meeting is to foster the conversations that make conservation possible. To that end, several of our Special Sessions include time for discussion in addition to formal presentations, starting with Thursday's Symposium on the Conservation Needs in NW Mexico. On Friday, the Round Table Discussion will provide an opportunity to share breaking news and observations from the field. On Saturday, a Special Session on the Impacts of Purse-seining on Seabirds will be convened by organizers from Mexico, Chile, and the USA to bring together stakeholders from the fishing industry, government agencies, and community organizations. Whether you are attending your first PSG or your 41st, session chairs and moderators will welcome your participation as a speaker and an active listener.

The other two Special Sessions, both scheduled for Friday, also fit with the theme of the meeting. The first will honor the legacy of Lifetime Achievement Award recipient Harry Carter, who dedicated his career to seabird conservation on both sides of the Pacific. The second will bring together researchers from throughout the Americas to share experiences in community-based research and conservation of *Sternula* terns.

In addition to these focused sessions and our contributed paper sessions, 5 fantastic plenary speakers will be giving us the long view of seabird ecology from around the globe. We will start local on Thursday morning with Dr. Juan Esteban Martínez Gomez sharing the story of Townsend's Shearwaters that breed 600 km south of La Paz. Next, in the afternoon, we will travel 5,000 km farther south to hear Dr. Michael Brooke's tales of conservation and petrel chasing on the Pitcairn Islands. On Friday, Dr. Stephen Votier will enlighten us about the behavior of Northern Gannets in the North Atlantic. On Saturday morning, Lifetime Achievement Award recipient Dr. Enriqueta Velarde will give us a tour of the Gulf of California, also known as the Vermillion Sea. Lastly, Dr. Bob Pitman will close out the meeting by taking us 1,600 km south to consider how anthropogenic disturbance on a local and global scale are conspiring against Clipperton Island and its colonies of Masked and Brown boobies. And finally, we will collaborate over drinks, dinner, and dancing during the closing Banquet.

This meeting would not have been possible without the tireless work of Local Committee Chair Yuri Albores, Chair Kyra Parker, Past Chair Nina Karnovsky, and Secretary Jane Dolliver. I extend a special thanks to Juliet Lamb for helping to build the scientific program from the many excellent submissions. Thanks also to all of you who submitted abstracts through the new system and then graciously re-submitted them upon request. Let's get this party started!

Adrian Gall
Program Chair



SALUDOS DE LA DIRECTORA DEL PROGRAMA CIENTÍFICO

¡Bienvenidos todos a la 45ª reunión del Pacific Seabird Group! En esta reunión estamos celebrando el tema de **Aves Marinas Sin Fronteras**, demostrando que el éxito de investigación y conservación de aves marinas exige la cooperación internacional. Nuestro programa (156 ponencias orales y 42 carteles) son testimonio que los participantes en esta reunión saben colaborar a través de fronteras y hasta océanos.

Una meta principal de esta reunión es incentivar las conversaciones que hacen posible la conservación. Por esa razón, varias de nuestras sesiones incluyen tiempo para dialogar después de las presentaciones formales, empezando con el simposio del jueves sobre la Conservación en el noroeste de México. El viernes, el Round Table Discussion dará la oportunidad de compartir experiencias y observaciones del campo recientes. El sábado, la sesión sobre los Impactos de la Pesca será convocada por organizadores de México, Chile, y los EUA para reunir representantes de la industria pesquera, oficiales del gobierno, y biólogos. No importa si es su primera reunión de PSG o lleva décadas, los moderadores le darán la bienvenida a su participación.

Las otras dos sesiones especiales, ambas el viernes, también le siguen la corriente al tema de la reunión. La primera honrará el legado de Harry Carter, destinatario del premio de Logros de la Vida, quien dedicó su carrera a la conservación de aves marinas de ambos lados del mar Pacífico. La segunda reunirá a investigadores de las Américas para compartir sus experiencias en investigaciones y la conservación de los gaviotines *Sternula*.

Además de las sesiones, tenemos 5 ponentes magistrales fantásticos quienes nos presentarán la ecología de aves marinas a largo plazo y de varios rincones del mundo. Empezaremos el jueves por la mañana con el Dr. Juan Esteban Martínez Gómez quien nos compartirá el cuento de la Pardela de Revillagigedo que se reproducen a 600 km al sur de La Paz. Por la tarde, viajaremos 5,000 km más al sur para conocer los esfuerzos de conservación y estudio de los petreles de las Islas Pitcairn. El viernes, Dr. Stephen Votier nos contará del comportamiento de los Alcatraces comunes del mar Atlántico. El sábado por la mañana, la Dra. Enriqueta Velarde, premiada por sus Logros de la Vida, nos dará un tour ecológico del Golfo de California que tenemos aquí al lado, conocido también como el Mar Bermejo, o el acuario del mundo. Por la tarde, el Dr. Bob Pitman nos transportará 1,600 km al sur para considerar como es que las actividades humanas están afectando a la Isla Clipperton y sus colonias de Bobos Enmascarados y Cafés. Por último, vamos a colaborar todos con comida, bebida, y baile durante el banquete.

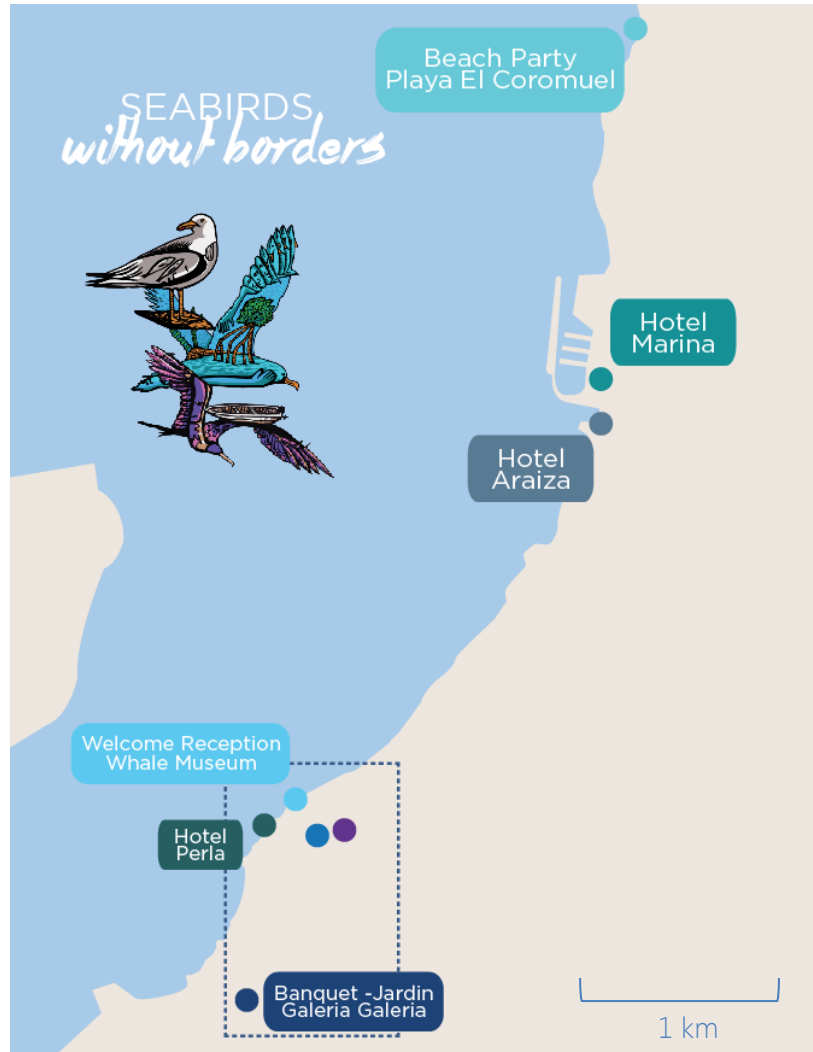
Esta reunión no hubiera sido posible sin el trabajo incansable del Comité Local, dirigido por Yuri Albores, Chair Kyra Parker, Past Chair Nina Karnovsky, y Secretaria Jane Dolliver. Le doy un agradecimiento especial a Juliet Lamb por su ayuda para organizar el programa de los muchos resúmenes excelentes. Gracias a ustedes quienes nos entregaron resúmenes por el sistema electrónico nuevo, y luego los volvieron a entregar cuando el sistema nos falló. ¡Adelante con la fiesta!

Adrian Gall
Program Chair



MAPS

Local Overview



Venue	Address
Playa El Coromuel	Carr Escénica 38
Hotel Marina	Highway to Pichilingue Km 2.5, Col. Lomas de Palmira
Hotel Araiza	Boulevard Alberto Alvarado Aramburo s/n, Col. Lomas de Palmira
Hotel Perla	Downtown (see next page)
Centro Cultural La Paz	Downtown (see next page)
Galería Galería Garden	Downtown (see next page)
Museo de la Ballena	Downtown (see next page)
Punto Mexico Conectado	Downtown (see next page)

Downtown La Paz Detail



Venue	Address
Centro Cultural La Paz	6 de Septiembre 120, Centro
Galería Galería Garden	Revolución de 1910, 595
Hotel Perla	Álvaro Obregón 1570, Centro
Juarez Theater	Belisario Domínguez, Zona Central
Museo de la Ballena	Paseo Álvaro Obregón 1
Punto Mexico Conectado	Francisco I. Madero and Independencia

MEETING LOGISTICS

Registration

The registration desk will be in the lobby of the Hotel Perla on Tuesday evening (16:00–18:00) and Wednesday (07:00–17:00) and then in the Hotel Araiza lobby for the rest of the conference (Thursday: 07:00–17:00; Friday – Saturday: 07:30 – 17:00).

Transportation

The Local Committee has arranged for shuttle buses to transport meeting participants from Hotel Perla to Hotel Araiza. They will depart from the bus station, two blocks from Hotel Perla, with the following schedules:

Date	Hotel Perla	Hotel Araiza
Thursday 22	7:30 and 7:50	17:45 and 18:30
Friday 23	7:30 and 7:50	17:30
	18:15 to Coromuel	21:30 and 22:00 to La Paz
Saturday 24	7:30 and 7:50	18:00 and 18:30
	18:30 to banquet	22:00 to Perla and Araiza

There are also a limited number of bicycles for use. Please check with the Registration desk for availability. Uber recently started operations in La Paz, and therefore the number of vehicles is still limited. There is a taxi station just outside Hotel Perla, and you can request one at your hotel reception if needed. Finally, the venues are a comfortable 20 min apart on foot. Feel free to enjoy the tropical breezes as you stroll along the malecón.

Interpretation

An interpreter will be available at selected session to translate the spoken English to Spanish. If you require headphones for following the conference in Spanish, please go to the desk outside the room and request your headphones. You need an ID to borrow the equipment and it will be returned once you return the headphones. There is no cost for this service.

Communication (Social Media)

We encourage anyone with a Twitter handle to share updates from the meeting using the hashtag **#PSG2018**. 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 Laura Bliss will be tweeting from the conference to keep members far and wide engaged with the events in La Paz.

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 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, Salón El Mechudo, Hotel Perla*

Marbled Murrelet Technical Committee, *Wednesday, 08:00-12:00, Salón Madre Perla, Hotel Perla*

Scripps' and Guadalupe Murrelets Technical Committee, *Wednesday, 08:00-12:00, Punto Mexico Conectado*

Seabird Monitoring Committee, *Wednesday, 08:00-12:00, Sala Madre Perla, Hotel Perla*

Kittlitz's Murrelet Technical Committee, *Wednesday, 11:00-12:00, Sala de Reuniones, Centro Cultural La Paz*

Aleutian Tern Technical Committee, *Wednesday, 13:00-17:00, Sala de Reuniones, Centro Cultural La Paz*

North Pacific Albatross Working Group, *Wednesday, 13:00-17:00, Punto Mexico Conectado*

Tufted Puffin Technical Committee, *Wednesday, 13:00-16:00, Salón Madre Perla, Hotel Perla*

Northeast Asia Seabird Conservation Committee, *Wednesday, 08:00-12:00, Sala Madre Perla, Hotel Perla*

USFWS Pacific Seabird Program, *Wednesday, 16:00-17:00, Salón Madre Perla, Hotel Perla*

Coordinating research to understand seabird bycatch in the Gulf of California purse seine fishery, *Friday, 08:00 – 10:00, San José, Hotel Araiza*

PSG Members' Meeting, *Friday, 12:00 – 13:30, Hotel Araiza*

Conservation Committee, *Saturday, 12:00 – 13:30, Hotel Araiza*

SOCIAL EVENTS

Welcome Reception, Wednesday, 19:00–21:00, Museo de la Ballena

The Whale Museum recently opened and provides information about the marine life of the area. During the event, drinks and appetizers will be served outside the museum, and people wanting to visit the museum can do so in guided groups.

Poster session, Thursday, 18:30–22:00, Centro Cultural La Paz

Centro Cultural La Paz is one of the oldest buildings in the city. The outdoor patio will host the poster session. Participants are encouraged to hang their posters by 14:00 on Thursday and remove them at the end of the session (22:00).

Student-Mentor Mixer, Friday, 17:00–18:30 Salón Coromuel, Hotel Araiza

Do you have questions about career opportunities in marine ornithology or the range of professional options available in seabird research and conservation? Please attend the 11th Annual Student-Mentor Event, organized by PSG student representative Chris Tyson. 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). Drinks will be provided and lively discussion is guaranteed.

Lifetime and Special Achievement Awards Dinner, Friday, 18:30–21:00, Hotel Marina

Come celebrate our Special and Lifetime Achievement awardees and hear about their invaluable contributions to seabird conservation and the Pacific Seabird Group. Dinner will be provided, along with unlimited juice and soda, one beer, and cash bar. Shuttle buses will be available after the dinner for those who want to join the Beach Party.

Beach Party, Friday, 18:30–22:00, Playa El Coromuel

El Coromuel is the closest beach where locals go on hot days. It has palapas, restrooms, a pier, zip lines, security, and a bar. The group Trio Ambéra will open with some local and traditional music before La Orden Sagrada, a rock group, will take you on a trip of 70's and 80's rock. Buses will depart from Hotel Perla at 18:15, with a stop at Hotel Araiza five minutes later. There will also be a bus from the Hotel Marina at 21:00 following the Special and Lifetime Achievement Awards. Return trips from the beach to the hotels will be at 21:30 and 22:00.

Banquet and Dance Party, Saturday, 18:30–22:00, Galería Galería Garden

The banquet will take place at Galería Galería Jardín, an open garden with trees. The menu will be BajaMed style. The evening meal will be accompanied by a Spanish guitar and after the awards the dance floor will open under the rhythm of La Orden Sagrada. A brief awards ceremony will follow the banquet and is open to all attendees, **even if you did not purchase a banquet ticket**. We will acknowledge Special and Lifetime Achievement recipients and present student oral and poster presentation awards.

Silent Auction, Thursday, 0930 – Saturday 24, 10:00, Hotel Araiza

The silent auction will be held from Thursday 22 February through Saturday 24 February and will end at 10:00 (end of coffee break) to allow time to pay for and claim items. 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 unique items that have been donated for the auction.

Sheets will be placed next to each item; indicate your bid on the sheet. Successful bidders should claim their item before the banquet at 18:30 on the 24th. We will accept payment by cash, check or credit card for items won. If you would like to donate items, please drop them off at the registration desk.

Printapalooza Live Photo Auction, Saturday, 09:30 – 10:00, Hotel Araiza

For the first time at a PSG conference, we will hold a live auction. We have requested amateur and professional photographers to donate a couple of images to be put up for auction. The photographs will be displayed during the talk intervals and the auction will take place during the coffee break following the Saturday morning plenary. If you would like to participate, please write your name at the registration desk and you will receive a bidding number that you should bring during the auction. The funds raised on this event will help to support the attendance of students and scientists to future annual meetings.

FORAGING BOUTS

Lunches

Lunch will be provided for all conference Participants on the 22nd, 23rd and 24th of February. It will consist of either a box lunch (sandwich and fruit) or sandwich and croissant trays. You can eat your lunch on site or cross the street and sit on the malecón. There is also one on-site restaurant serving international and local food, and more restaurants are located along the malecón.

Breaks

Both the morning and afternoon breaks during the scientific session will have coffee, tea, and light snacks for participants. Please wear your badge at all times.

Welcome reception

Appetizers and one drink are included in registration for Participants and Guests. Appetizers will take you on a culinary trip around Mexico, and you can sample a bit of everything. Of course, spiciness will be limited to avoid any suffering.

Poster session

Appetizers and one drink are included in registration for Participants and Guests. Appetizers will take you on a culinary trip around Mexico, with options different from the previous day.

Lifetime and Special Achievement Awards Dinner

A full sit-down dinner and two drinks are included with registration for Participants and Guests.

Beach party

The beach party will offer locally crafted appetizers. You will be given two coupons for alcoholic beverages during this event. Water (lemon, cucumber, mint) is unlimited. A bar is available on site to purchase additional drinks. Please bring cash in pesos.

Banquet

The closing banquet will serve a variety of BajaMed cuisine. There will be one hour of open bar before dinner is served and then there will be a cash bar available afterwards until the end of the banquet. Tickets can be purchased until Thursday 22nd at lunchtime on the webpage or the registration desk.

FIELD TRIPS

Whale watching at Bahia Magdalena, Wednesday 21 and Sunday 25 February, 06:00–19:30

Travel to Bahia Magdalena to watch whales. This lagoon is famous for close encounters with grey whales that have migrated 6,000 miles to this protected, relatively warm water to mate and give birth. Dolphins and turtles are frequently observed on this day trip and pelagic seabirds occasionally enter the lagoon. We will have the opportunity to disembark onto a barrier island to walk to a roosting site (formerly a colony) of magnificent frigatebirds. There are also double-crested cormorants, brown pelicans, reddish and white egrets, and a few bald eagles in the area.

Espiritu Santo Island, Wednesday 21 Feb or Sunday 25 Feb, 8:00–18:00

Take a one-hour ride in a covered boat from La Paz to Espiritu Santo to some of the most beautiful beaches in Mexico. Our first stop will be Los Islotes, to snorkel with gregarious sea lion pups and an impressive array of fish. We will then travel south and visit several stunning beaches and coral reefs along the way. Finally, we will kayak within a pristine archipelago, paddling within meters of the largest magnificent frigatebird colony in the Northwest of Mexico.

Swim with Whale Sharks, Wednesday 21 Feb or Sunday 25 Feb, 08:00–12:00 or 13:00–17:00

Swim with the largest fish on Earth! You will travel by boat into beautiful La Paz Bay, where juvenile whale sharks congregate during the winter to feed on plankton. The “Toad Fish”, as the whale shark is called by the fishermen of La Paz, is one of three filter-feeding species of sharks in the world.

Birdwatching in Sierra La Laguna, Sunday 25 Feb, 5:30–23:00

Travel to San Antonio de la Sierra to birdwatch inside the UNESCO Sierra La Laguna Biosphere Reserve. The flora of this vegetation “island” within the arid Peninsula has a remarkable level of diversity and spatial heterogeneity including the only oak-pine forest in the state and the only low elevation, dry forest on the peninsula. The fauna is likewise diverse, with 108 arthropod, two amphibian, 27 reptile and 30 mammal species reported. There have been 111 bird species observed here, either resident or migratory, of which 17 are protected and three are threatened. Three out of the four endemic species of the peninsula as well as up to 24 endemic subspecies can be found here.

Custom and Self-guided Tours

There are several great options for custom and self-guided tours of the area if you are interested in exploring the Baja California Sur or the Gulf of California. Please stop by the Registration Desk with information regarding your interest so that we can put you in contact with local tour operators.

SPECIAL PAPER SESSIONS AND SYMPOSIA

SPS 1: Seabird Restoration, Thursday, 10:00 – 12:00, Loreto I

Convener: Yuliana Bedoya

Seabird populations around the world have declined due to different threats such as invasive alien species, contaminants, oil spills, bycatch, fisheries, climate change, and ocean acidification. Conventional restoration actions –the eradication of invasive mammals, habitat restoration- alone are inadequate to effectively restore seabird colonies that were extirpated or decimated. Increasingly, restoration projects in the Pacific Ocean are supplemented with active seabird restoration to ensure the recolonization and recovery of breeding colonies. This special paper session will present a wide variety of ambitious projects that currently employ novel techniques to restore seabird populations (social attraction techniques, translocation). Papers will include case studies from the Channel Islands, Hawaiian Islands, Mexican Pacific islands, and others. Talks will present different methods, recent success histories, and the adaptive management to succeed.

SPS 2: Harry Carter's Legacy, Friday, 10:00 – 12:00, Loreto I

Conveners: Trudy Chatwin, Nina Karnovsky, and Kuniko Otsuki

The late Harry R. Carter designed, guided, and inspired seabird research and conservation efforts across the globe. In this Special Paper Session, co-authors, collaborators, and people whose work was influenced by Harry Carter will present the research that is part of his legacy. This collection of presentations and posters will celebrate the tremendous impact that he continues to have on the work of many members of the Pacific Seabird Group.

SPS 3: I Impact of purse-seine fisheries on seabird bycatch: in search of mitigation measures and industry involvement, Saturday, 11:30 – 17: 45, Comondú

Conveners: Enriqueta Velarde and Cristián Suazo

Purse seine fisheries are among the most widely distributed and abundant activities in industrial scale, both on a large scale for tuna, and small-scale targeting for forage fish in coastal areas worldwide. However, the impacts of these activities on non-target taxa such as seabirds are scarcely understood. At least 35 species of seabirds have been recorded as bycatch in this type of fishery. Chile using a variety of approaches focused on focal species and purse seine fleets to better address the issue, including the formulation of National Plans towards the reduction of discards and bycatch of local purse seine fisheries. In Mexico, at least 17 seabird species have been identified as bycatch in purse seine for small pelagic fish in the Gulf of California. This special paper session is a key opportunity to invite stakeholders in this region, share experiences, and start collaborative initiatives with the ongoing research and management actions towards the conservation of seabirds affected by purse seine fisheries in countries along the Pacific Rim of the American Continent and beyond.

SYMPOSIUM 1: Conservation needs in northwestern Mexico, Thursday, 13:30 – 17:45, Comondú

Conveners: Yuri Albores-Barajas and Gustavo Danemann

Many seabird experts that work in northwestern Mexico will be attending the PSG conference in La Paz, 2018. The objective of this symposium is to identify conservation needs in northwestern Mexico and to identify collaborations and alliances to address these conservation needs. This session will consist of oral presentations followed by a 2-hr roundtable discussion to identify and prioritize conservation objectives. The outcome of this session will be a manuscript (or manuscripts) reviewing seabird conservation issues and making recommendations for further actions in northwestern Mexico.

SYMPOSIUM 2: Conservation & research of *Sternula* terns in the Pacific, Friday, 10:00 – 15:00, Loreto I

Convener: Thomas Ryan

This symposium will bring together researchers working on all aspects of the biology, natural history, and conservation of the *Sternula* terns. We will focus on aspects of the conservation of two species of conservation concern, the Peruvian tern (*Sternula lorata*) and the least tern (*Sternula antillarum*). We wish to share experiences in community-based science and outreach, monitoring protocols, management of predators and habitat, and reduction of human disturbance at nesting sites. We also will share current research regarding movement and migration, and population ecology. In addition to publishing individual papers based on the presentations, we plan to create a manual in both Spanish and English with monitoring and capture methods, and sample data forms.

WORKSHOPS

WORKSHOP 1: Using Drones or UAVs to Study and Conserve Seabirds and Other Birds,

Thursday, 10:00 – 12:00, San José

Conveners: David Bird and Émile Brisson Curadeau

Small unmanned vehicle systems (UAVS; aka drones) are gaining in popularity among wildlife biologists and managers all over the world for conducting population surveys, tracking radio-tagged animals, sensing and observing animals in sequestered or dangerous places, mapping and monitoring wild habitats, and deterring poachers. Since 2006, Dr. David Bird and his students and collaborators have experimented with using a fixed-wing UAVS to monitor the abundance of nesting common terns (*Sterna hirundo*) and murrelets, to map breeding habitat, to find nests by detecting heat signatures, to radiotrack songbirds, and to disperse nuisance birds such as starlings from vineyards and blueberry crops. Compared to using manned light airplanes or helicopters, flying drones can be cheaper, greener, less obtrusive, and much safer. This workshop summarizes UAV-based research and discusses the positive and negative sides of using drones for avian research and management.

WORKSHOP 2: Passive Acoustic Monitoring Workshop, Thursday, 17:30 – 18:30, Comondú

Conveners: Ali Donargo and Nicole Wright

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 available and pre-registration is required.

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

Moderator: Adrian Gall

An open session to discuss the unusual nearshore ocean conditions in 2017 which appeared to affect seabirds and the ocean food web in the California Current ecosystem, and possibly to the north (Gulf of Alaska, Bering and Chukchi seas) and south (tropics/Peru Current) of it as well. 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

Oral Presentations

Oral presentation slots are 15 min long. This allows 12 min for the talk and 2-3 min for questions and the transition to the next speaker. Please be courteous to fellow speakers and practice your talk ahead of time so that you do not run over. Session chairs will be strict in enforcing time limits for each talk to ensure synchronous start times for each of the three concurrent sessions. All session rooms will be equipped with a laptop computer, an LCD projector, a microphone and speakers. The meeting venue is using Microsoft Windows 7 with Microsoft Office 2010; if your presentation is prepared on a Mac, it is your responsibility to test that it is functioning properly on a PC ahead of time. For presentations requiring audio or video, we also recommend testing things well in advance. If you have additional A/V needs, please contact volunteers at the registration desk and they will try to accommodate your request. Please save presentations to a USB drive and deliver them to the registration desk the day before (or at least 2 sessions before) you are scheduled to speak. Good luck!

Poster Presentations

The maximum dimensions for your poster are 120 cm high x 95 cm wide. Posters may be attached to the wall space via Velcro that will be provided on site. Your poster will be given a number (found in this program), and that corresponding number will appear on the wall of the poster session venue (Centro Cultural La Paz) to guide you to where you should hang your poster. The number should be on the left of your poster (i.e. hang your poster to the right of the number). Please hang your poster no later than 2pm on 22 February, and please take it down by the end of the poster session. Appetizers and drinks will be available throughout the reception. Presenting authors should attend their poster beginning at 18:30.

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 time-keeping device handy, and contact all speakers to confirm the presenter's name and pronunciation. You will be provided colored cue cards to assist you in your mission. 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 Yellow Card (Tarjeta Amarilla) in hand 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 Red Card (Tarjeta Roja). 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 Adrian Gall, Scientific Program Chair.

Student Presentation Award Judges

Thank you, judges, for volunteering to give valuable feedback to students as they develop their public speaking skills. At the beginning of the conference, judges will meet to be assigned student talks and posters to evaluate. All judges will be given score sheets. Please submit your score sheets to Justine at the Registration Desk as soon as possible after you score a talk or poster. Awards for the best oral and poster presentations will be given at the Awards Ceremony after the Banquet on Saturday evening.

PLENARY SPEAKERS



Dr. Juan Esteban Martínez Gómez

Instituto de Ecología (Inecol)

Thursday 22 Feb 2018

08:30–09:30

Juan Esteban Martínez Gómez, specialist in endemic and endangered species on islands, coordinates the reintroduction of the Socorro Dove, the founding director of Endémicos Insulares AC, former member of the Alliance for Zero Extinction (AZE) Executive Committee and first coordinator of AZE. Mexico. Currently, he is researcher at INECOL – CONACyT.

A 25-year perspective in the decline of the critically endangered Townsend's Shearwater: impacts of introduced mammal and human activities

This talk will present a retrospective tour on the breeding grounds of Townsend's Shearwater on Socorro and Clarion islands since 1993. After a brief historical introduction on the discovery of the species and its breeding grounds by early explorers, Juan Martinez reconstructs, through his field notes the distribution, habitat, activity patterns and main threats for the species on Socorro Island and the rediscovery of the species on Clarion Island. Juan concludes emphasizing on the importance of habitat integrity, reduced anthropogenic disturbance and responsible eradication protocols as the key factors to guarantee the recovery of this critically endangered species.

Dr. Michael Brooke

Department of Zoology, University of Cambridge, UK

Thursday 22 Feb 2018

16:30–17:30

Michael Brooke started his ornithological career as the warden of the Skokholm Bird Observatory in Wales, where he earned his PhD studying the Manx shearwater. His shearwater research achieved the first demonstration of vocal differences between the sexes of these nocturnal birds, a finding that has proved immensely useful in surveying colonies of allied species around the world. Over the past 4 decades, he has studied birds and other aspects of natural history in 60 countries and co-authored 150 academic papers. Currently, he is the Curator of Birds in the University Museum of Zoology, Cambridge.



Seabird conservation and research in the Pitcairn Islands: 25 years of delight and despair

This presentation offers a 25-year overview of seabird research and conservation efforts in the four Pitcairn Islands, both aspects hugely facilitated by the technical advances of recent decades. Following the 1991-1992 discovery that introduced Pacific rats were severely reducing breeding success of gadfly petrels in this South Pacific archipelago, successful rat eradication was achieved on the small atolls of Ducie and Oeno in 1997, and there is now evidence of petrel recovery on Oeno. However, two attempts on inhabited Pitcairn failed. By the early 2000s technical developments placed an operation on the fourth and largest island, Henderson, within reach. RSPB expertise secured the necessary £1.5 million, and 75 tonnes of brodifacoum-containing bait were dropped in August 2011. Unfortunately, a rat was sighted in March 2012 and numbers have returned to pre-operational levels. While the Henderson operation was above all driven by the conservation needs of the endemic Henderson Petrel (*Pterodroma atrata*), Murphy's Petrel (*P. ultima*) probably suffers the greater impact on breeding success. The logistics of the conservation work enabled GLS and GPS tracking of the latter, which proved to have an extraordinary annual cycle.



Dr. Stephen Votier

University of Exeter

Friday 23 Feb 2018

08:30–09:30

Steve developed a love of ornithology through being a keen birder but has also somehow managed to carve out a career as an academic. Following a BSc in Zoology & Botany at the University of Newcastle, he completed his PhD and first post-doctoral position on foraging in great skuas with Bob Furness at the University of Glasgow. He has since worked at the University of Sheffield (studying common murre response to climate change and pollution with Tim Birkhead), IMEDEA, Spain and the University of Plymouth, before moving to the University of Exeter in 2013. Much of his current seabird research revolves around the themes of climate and fisheries impacts, involving collaborations in Europe, South Africa, the Southern Ocean and the Tropics. He is currently Chairman of the *Seabird Group*.

Tracking gannets: insights from 12 years of bio-logging

Understanding biological responses to global change requires insight into processes from individuals to populations. Marine biomes are changing with great rapidity and for long-lived species like seabirds, behavioural adjustments may provide a more sensitive barometer than changes at the population-level. The bio-logging revolution has enabled us to study animal behaviour in great detail and potentially understand better responses to a changing world. Here I provide insight into how 12 years of tracking has improved our knowledge of behaviour and distribution of northern gannets *Morus bassanus* in the North Atlantic. I outline research on individual, sex-specific and colony-specific differences in habitat use and how social information, oceanography and fisheries shape these. I also discuss the value of long-term single species studies and whether they have a place in science today or in the future.

Dr. Enriqueta Velarde

Universidad Veracruzana

**Saturday 24 Feb 2018
08:30–09:30**

Dr. Velarde earned her undergraduate degree from the University of Tennessee at Knoxville studying the behavior and ecology of primates. She completed M.S. and Ph D degrees at the prestigious Instituto de Biología at the Universidad Nacional Autónoma de México (UNAM) for research on the biology of Heermann's Gull, under the renowned naturalist Bernardo Villa-Ramirez. She has been an effective advocate for seabird protection from human predation, introduced mammals, and overfishing of food stocks. She also teaches undergraduate and graduate courses in seabird biology and conservation at the University of Veracruz.



Teachings of the seabirds in the Vermillion Sea

The Gulf of California is a very productive sea located at the boundary between temperate and tropical Pacific waters. Its complex bathymetry, presence of multitude of islands, and strong winds and tidal currents provide this marine area with a variety of environments that allow the presence of a rich array of seabird species, excellent conditions for their reproduction and the presence of quasi-endemic species. This relatively small and young section of ocean harbors a rich species diversity, some of them visiting from across the globe, and large nesting populations of several seabird species. Past and recent human direct and indirect threats pose risks to this valuable natural capital. The study and conservation of this priceless region of our planet is one of our most important tasks as scientists and members of the human society.

El Golfo de California es un mar muy productivo ubicado en el límite entre las aguas tropicales y templadas del Pacífico. Su complejo relieve submarino, multitud de islas, y fuertes vientos y corrientes de mareas que lo caracterizan, le proveen de una multiplicidad de ambientes que permiten la presencia de una rica variedad de especies de aves marinas, algunas visitándolo desde el otro extremo del mundo, excelentes condiciones para su reproducción, y presencia de especies cuasi-endémicas. Esta porción de mar, relativamente pequeña y joven alberga una alta diversidad de especies de aves marinas y grandes poblaciones reproductivas de varias de ellas. Efectos directos o inducidos por la actividad humana en el pasado y en tiempos recientes constituyen un riesgo para este valioso capital natural. El estudio y conservación de esta invaluable región de nuestro planeta es uno de nuestros más importantes quehaceres, como científicos y miembros de la sociedad humana.



Dr. Robert Pitman

NOAA Fisheries Southwest Science Center

Saturday 24 Feb 2018

16:30–17:30

Bob Pitman has worked at NOAA Fisheries, Southwest Fisheries Science Center, in La Jolla, CA, as a marine ecologist for over 40 y. He has conducted research on marine birds and mammals, sea turtles, and flying fish during years at sea, in all of the oceans of the world. For the past 10 years, he has worked almost exclusively on killer whale ecology in Antarctica and Western Australia.

Clipperton Island: Life and Death of a Desert Tropical Isle

Tiny, uninhabited, and French-owned, Clipperton Island lies half-way between the tip of Baja California and the equator. One of the most isolated islands in the world, its barren, 1.6 sq. km is teeming with raucous bird-life: home to perhaps half of the world's Masked Boobies (*Sula dactylatra*, 100,000+ individuals), the world's second largest Brown Booby colony (*Sula leucogaster*, ca. 25,000), and various other nesting seabirds. This talk will present a tour of the island, introduce its inhabitants, and discuss our research on Masked Booby feeding ecology conducted during a French scientific expedition to the island in 2005. Historically, Clipperton has suffered a predictable sequence of anthropogenic disasters as a result of guano mining, military occupation, and shipwrecks, respectively. Although the introductions of pigs, plants, and rats at various times have whip-sawed the terrestrial ecology, to date most of the damage from these events has been reversible. However, with an average elevation of only 2-3 m, sea-level rise and increased hurricane intensity, both consequences of a warming planet, are currently on course to swallow up one of the most important booby colonies on Earth. Future generations may have to content themselves with a ppt.

PSG 2018 SPECIAL AND LIFETIME ACHIEVEMENT AWARD RECIPIENTS

Special Achievement Award Recipient **Alfonso Aguirre-Muñoz**

Alfonso Aguirre-Muñoz has an interdisciplinary background and a wide range of expertise. He is an Oceanographer and holds a Ph.D. in Regional Studies and Sustainable Development from El Colegio de la Frontera Norte (COLEF), where he graduated with highest honors (*Suma cum laude*). His PhD Thesis—Sustainable Development and Lifeworld—was directed by Dr. Jorge Bustamante (National Science Award) and Dr. Enrique Leff (National Autonomous University Professor and author on ecological theory). He also completed a graduate course in Mollusk Aquaculture at Kagoshima University, Japan. He speaks five languages. His 40-year trajectory has been in the conservation and sustainable development of coastal, marine, and island ecosystems. From 2002–2017, Alfonso was the Executive Director of Grupo de Ecología y Conservación de Islas (GECI), a successful science-based non-profit Mexican organization. GECI is involved with scientific research, professional development, environmental education with local communities, and public policy. Under his leadership, the organization has restored more than 55 thousand hectares of exceptional islands—critical habitats for marine birds. Thanks to these enduring efforts, seabird populations are dramatically recovering, particularly along the unique Baja California Islands. In the beginning of his career, Alfonso served as NW Regional Manager of the Mexican Government Fisheries Bank (Banpesca), where he pioneered Mexico's mollusk aquaculture in harmony with coastal conservation. He has served as consultant to the Mexican government, private companies, and international agencies. His publications include interdisciplinary approaches on natural resources and conservation. He works enthusiastically for conservation and environmental rights, linking local interests with science, and international and legal arenas. Alfonso has been married to Joana Bielschowsky-Gottlieb—an Industrial and Graphic Designer—for 38 years. They have two daughters: Ikerne, who lives in Brussels, is an Environmental Geographer, working on climate change subjects; and Julene, a Strategic Industrial Designer working in the financial sector in London.



The Pacific Seabird Group awards Alfonso Aguirre Muñoz with a Special Achievement Award in recognition of his dedication and leadership prompting the conservation and restoration of seabird populations and their nesting habitat, and inspiring young professionals around the world.

Lifetime Achievement Award Recipient
Dr. Enriqueta Velarde



Photo: Fulvio Eccardi

For 37 years Dr. Enriqueta Velarde has implemented her broad vision of seabird ecological science in the service of biological conservation, marine ecosystem management and local and international human communities through her research in the Gulf of California, México.

Since her first visit to Isla Rasa in 1979, she has undertaken fieldwork, often alone, on this jewel among the 240 islands that make up the UNESCO 'Islas del Golfo de California' Biosphere Reserve, created in 1995. Enriqueta has published over 40 influential research papers, a number in international journals, and including book chapters, plus innumerable reports for Mexican government agencies and others - not only on the seabirds of Rasa & other islands - but especially on the impacts and management of pelagic fisheries in western México.

She has actively promoted the exceptional character of these islands and adjacent marine systems through educational videos, popular articles and digital productions, as well as personal community engagement.

By analyzing breeding frequency and productivity in the near-endemic Heermann's Gull (*Larus heermanni*), Enriqueta & co-workers identified rapidly-changing environmental factors impacting on this population, especially fisheries and climatic events – even in advance. She's shown here with an Elegant Tern (*Thalasseus elegans*), one of several species of seabirds that she's studied, including Californian Brown Pelicans (*Pelecanus occidentalis*) since 1983.

In recognition of being a pioneer seabird ecologist in Mexico and an inspirational model for conservation biologists everywhere, the Pacific Seabird Group honors Enriqueta Velarde with a Lifetime Achievement Award.

Lifetime Achievement Award Recipient **Harry Carter (1956–2017)**

Harry's passion for seabirds began in the 1970s while as an undergraduate student he worked for the British Columbia Provincial Museum on the first comprehensive survey of seabird colonies in British Columbia. Harry completed his M.S. degree from the University of Manitoba in 1984 under the guidance of Dr. Spencer Sealy, a founding member of PSG. His thesis, "At-sea biology of the Marbled Murrelet (*Brachyramphus marmoratus*)," was one of the first detailed studies of the species and served as a catalyst for many research and conservation



efforts. Harry then took a position as seabird biologist on the Farallon Islands for Point Reyes Bird Observatory until 1988. In 1989, Harry began working for Humboldt State University where he led a daunting 3-year survey effort of seabird colonies along the entire coast of California.

The decades that followed saw Harry lead or collaborate on a myriad of studies examining the status and ecology of seabirds in California and beyond. Harry led efforts to develop a long-term population monitoring program for Common Murres, Brandt's Cormorants and Double-crested Cormorants throughout California. He played a pivotal role in documenting the rapid decline of murres in central California and efforts to restore them, including the first successful social attraction project for murres on Devil's Slide Rock. Harry was particularly active in the California Channel Islands where he conducted the first region-wide surveys for the rare Ashy Storm-Petrel and Scripps's Murrelet. In 1993, Harry began collaborating with Japanese researchers to survey Japanese Crested Murrelet colonies and help conservation efforts for the species. His interest in Marbled Murrelets never waned, as he collaborated on many studies in California, Oregon, and Alaska.

In 2003, Harry returned home to British Columbia and started Carter Biological Consulting. While continuing with many of his previous studies, Harry expanded his geographic scope to the west coast of Baja California, Mexico, conducting the first comprehensive surveys of *Synthliboramphus* murrelets in the region. These studies led to recognition of Scripps's and Guadalupe murrelets (former subspecies of the Xantus's Murrelet) as separate species.

Harry left a body of over 100 published articles. A tireless conservationist, Harry applied his influence on management and policy efforts for seabirds throughout the North Pacific. But perhaps Harry's most lasting legacy will be the influence he had on the many people with whom he collaborated and mentored around the world.

In recognition of his 40+ years of distinguished contributions to the knowledge and conservation of Pacific seabirds and his cherished encouragement and mentoring of seabird biologists around the world, the Pacific Seabird Group honors Harry Carter posthumously with a Lifetime Achievement Award.

800	Welcome
830	PLENARY: Dr. Juan Esteban Martinez <i>A 25 year perspective in the decline of the critically endangered Townsend's Shearwater</i>
930	Coffee Break

	Comondú	Loreto I	Loreto II	San José
	Behavior Chair: Cecilia Soldatini	Special Paper Session Seabird Restoration Chair: Yuliana Bedolla-Guzmán	Conservation Biology Chair: Juan Serratos	
1000	EXAMINING THE BEHAVIORAL BENEFITS OF LONG-TERM PAIR BONDS IN A SMALL AUKLET Christopher Tyson* , Russell Bradley, Pete Warzybok, & Josh Hull	THE TRILATERAL ISLAND INITIATIVE: INTERNATIONAL COLLABORATIVE EFFORTS FOR THE CONSERVATION AND RESTORATION OF SEABIRDS IN NORTH AMERICA Gregg Howald, Annie Little, Alfonso Aguirre-Muñoz, Gilles Seutin, Patrick Nantel, Laurie Wein, Humberto Berlanga-García, Eduardo Iñigo-Elías, & Federico Méndez-Sánchez	RESULTS OF SEABIRD SURVEY AT SERIBAUT ARCHIPELAGO, JOHOR, MALAYSIA Abdulmaula Hamza , Ismail Bin Hj. Mamat, & Mohd Tajuddin Bin Abdullah	
1015	ARE STREAKED SHEARWATERS FAITHFUL TO THEIR PARTNERS? Miho Sakao* , Akinori Takahashi, & Katsufumi Sato	SEABIRD RESTORATION ON THE BAJA CALIFORNIA PACIFIC ISLANDS, MEXICO: A FIVE-YEAR BINATIONAL AND MULTINSTITUTIONAL EXPERIENCE Yuliana Bedolla-Guzmán , María Félix-Lizárraga, Alejandra Fabila-Blanco, Esmeralda Bravo-Hernández, Alfonso Hernández-Ríos, Miguel Corrales-Sauceda, Alicia Aztorga-Ornelas, Alejandro Aguilar-Vargas, Alfonso Aguirre-Muñoz, Annie Little, Jennifer Boyce, Eduardo Iñigo-Elías, Stephen Kress, & Federico Méndez-Sánchez	THE PUGET SOUND SEABIRD SURVEY: DOCUMENTING LIVE SEABIRD ASSEMBLAGES IN THE PUGET SOUND, WASHINGTON USA USING CITIZEN SCIENCE Jennifer Lang , Timothy Jones, & Toby Ross	
1030	THE SEABIRD PHILOPATRY PARADOX: PROBABILITY, WING LOAD, OR COLONY ATTRIBUTES? Carmen Antaky* , Lindsay Young, Jeremy Ringma, & Melissa Price	LAYSAN ALBATROSS (<i>Phoebastria immutabilis</i>) ON GUADALUPE ISLAND, MEXICO: POPULATION STATUS, DISTRIBUTION, SOCIAL ATTRACTION AND ADVANCES TOWARDS THE ERADICATION OF FERAL CAT Julio Hernández-Montoya , Luciana Luna-Mendoza, Ángel Méndez-Rosas, Zayra Peña-Moreno, Ariana Duarte-Canizales, Yuliana Bedolla-Guzmán, & Federico Méndez-Sánchez	THE PRESENCE OF BIRDS AS INDICATORS OF SUCCESS OF MANGROVE REHABILITATION IN SISAL, YUCATAN, MEXICO Luis Salinas-Peba , Maribel Badillo-Alemán, Adriana Vallarino-Moncada, & Xavier Chiappa-Carrara	
1045	AERIAL ROOSTING NEAR TERRESTRIAL ROOSTS IN MAGNIFICENT FRIGATEBIRDS Niels Rattenborg , Yuri Albores-Barajas, & Cecilia Soldatini	TERNs RETURN TO SAN ROQUE ISLAND, MEXICO AFTER 90 YEARS OF EXTIRPATION THANKS TO SOCIAL ATTRACTION TECHNIQUES AND PERSEVERANCE María Félix-Lizárraga, Alejandra Fabila-Blanco , Alfonso Hernández-Ríos, Esmeralda Bravo-Hernández, Yuliana Bedolla-Guzmán, Miguel Corrales-Sauceda, Alfonso Aguirre-Muñoz, Annie Little, Jennifer Boyce, Eduardo Iñigo-Elías, Federico Méndez-Sánchez, Alicia Aztorga-Ornelas, Alejandro Aguilar-Vargas, & Stephen Kress	SOUNDSCAPES TO MEASURE SEABIRD RESTORATION OUTCOMES IN THE WESTERN ALEUTIAN ISLANDS Abraham Borker* , Rachel Buxton, Ian Jones, Jeff Williams, Bernie Tershly, & Donald Croll	Drone Workshop David Bird
1100	BEHAVIORAL RESPONSES OF EASTERN BROWN PELICANS TO THE PASSAGE OF HURRICANE IRMA ALONG THE ATLANTIC COAST Bradley Wilkinson* , Yvan Satgé, Juliet Lamb, & Patrick Jodice	SEABIRD SOCIAL ATTRACTION PROJECTS AT CHANNEL ISLANDS NATIONAL PARK: LESSONS LEARNED 2008-2017 Amelia DuVall , William McIver, Harry Carter, David Mazurkiewicz, A. Laurie Harvey, Michelle Hester, Annie Little, & Jim Howard	LIGHT ATTRACTION IN STREAKED SHEARWATER FLEDGLINGS: THE EFFECTS OF TURNING EXTERNAL LIGHTS OFF Masaki Shirai , Kazuhiko Hirata, Sakiko Matsumoto, & Maki Yamamoto	

1115	<p>THE PERFUME OF PETREL PLUMAGE: INDIVIDUAL-SPECIFIC ODOR SIGNATURES IN LEACH'S STORM-PETRELS (OCEANODROMA LEUCORHOA)</p> <p>Sarah Jennings*, Gabrielle Nevitt, & Susan Ebeler</p>	<p>RESTORING THE NATIVE PLANT COMMUNITY ON SCORPION ROCK TO ENHANCE NESTING HABITAT FOR BURROW AND SHRUB-NESTING SEABIRDS IN THE CALIFORNIA CHANNEL ISLANDS: LESSONS LEARNED OVER A DECADE 2007-2017</p> <p>David Mazurkiewicz*, Josh Adams, Catherine Carter, Amelia DuVall, Jim Howard, Peter Larramendy, Andrew Yamagiwa, Annie Little, & A. Laurie Harvey</p>	<p>FORTY YEARS AND COUNTING: ECOLOGY AND CONSERVATION OF THE CRITICALLY ENDANGERED WAVED ALBATROSS</p> <p>Kathryn Huyvaert, Phillip Street, & David Anderson</p>	
1130	<p>OLFACTORY FORAGING IN A CHANGING ENVIRONMENT</p> <p>Benjamin Pitcher & Gemma Carroll</p>	<p>PRODUCTIVITY RESPONSE BY ENDANGERED HAWAIIAN PETRELS TO ECOSYSTEM-LEVEL PREDATOR CONTROL ON THE ISLAND OF LANA'I</p> <p>Rachel Sprague, Tyler Bogardus, & Andre Raine</p>	<p>A NEW GLOBAL BIOGEOGRAPHIC SCHEME FOR SEABIRDS: THE IMPORTANCE OF SEA SURFACE TEMPERATURE AND SALINITY IN STRUCTURING SEABIRD ASSEMBLAGES</p> <p>Juan Serratos-Lopez*, Marcelo Rivadeneira, & Guillermo Luna-Jorquera</p>	
1145	<p>NON-BREEDING SHEARWATER INTERACTIONS AND RESPONSES TO SUPPLEMENTAL FOOD DURING VARYING PREY AVAILABILITY</p> <p>Paloma Calabria Carvalho*, Laurie Maynard, & Gail Davoren</p>	<p>RESTORATION PROJECT FOR SWINHOE'S STORM PETRELS IN KOREA NATIONAL PARK</p> <p>Miran Kim, Chang-uk Park, Yang-mo Kim, Ha-song Kim, Kyeong-gyu Lee, & Do-jin Song</p>	<p>RECOLONIZATION OF GUADALUPE ISLAND BY THE GUADALUPE MURRELET (SYNTHLIBORAMPHUS HYPOLEUCUS) AND UPDATE ON ITS POPULATION STATUS</p> <p>Julio Hernández Montoya, Ariana Duarte-Canizales, Ángel Méndez-Rosas, Yuliana Bedolla-Guzman, Luciana Luna-Mendoza, & Federico Méndez-Sánchez</p>	
1200	Lunch		Past chairs meeting (private)	

	Comondú	Loreto I	Loreto II
	Symposium Conservation Needs in NW Mexico Chair: Yuri Albores	Climate Change Chair: Sarah Thomsen	Contaminants and Marine Debris Chair: Juliet Lamb
1330	<p>CONSERVATION NEEDS IN NORTHWESTERN MEXICO: THE SEABIRDS ISSUE</p> <p>Enriqueta Velarde, Daniel Anderson, & Exequiel Ezcurra</p>	<p>BAILING ON THE CALIFORNIA CURRENT: MARBLED MURRELET AND OTHER SEABIRD RESPONSE TO UNUSUAL CONDITIONS IN OREGON AND NORTHERN CALIFORNIA</p> <p>Craig Strong, Richard Golightly, Stephanie Schneider, Kim Nelson, Cheryl Horton, Lindsay Adrean, James Rivers, Dan Roby, & Matthew Betts</p>	<p>MIGRATORY SEABIRDS ARE RESPONSIBLE FOR MERCURY BIOTRANSFER FROM MARINE TO TERRESTRIAL ECOSYSTEMS</p> <p>Akiko Shoji, Kyle Elliott, Stéphane Aris-Brosou, Hazuki Mizukawa, Shota Nakayama, Yoshinori Ikenaka, Mayumi Ishizuka, Tomohiro Kuwae, Kenta Watanabe, Jordi Gonzalez, & Yutaka Watanuki</p>
1345	<p>SCALING UP SEABIRD CONSERVATION IN MEXICO THROUGH A COMPREHENSIVE APPROACH</p> <p>Federico Méndez-Sánchez, Yuliana Bedolla-Guzmán, Julio Hernández-Montoya, Evaristo Rojas-Mayoral, Antonio Ortiz-Alcaraz, Humberto Berlanga-García, José Bernal-Stoopen, Annie Little, Jennifer Boyce, Eduardo Iñigo-Elias, Scott Hall, Stephen Kress, Hannah Nevins, Petra Quillfeldt, Concepción Molina-Islas, Jorge Rickards-Guevara, Alfredo Ortega-Rubio, & Alfonso Aguirre-Muñoz</p>	<p>INCREASED SEA ICE LOSS IS TURNING A COLONY DECLINE INTO A COLLAPSE: WAS 2017 A TIPPING POINT FOR MANDT'S BLACK GUILLEMOT IN THE WESTERN ARCTIC?</p> <p>George Divoky & Erin Brown</p>	<p>HARMFUL ALGAL BLOOMS, SEABIRDS, AND FORAGE FISH: ASSESSMENT OF TOXINS DURING AND AFTER THE 2015-2016 COMMON MURRE DIE-OFF</p> <p>Sarah Schoen, Caroline Van Hemert, William Holland, John Piatt, Mayumi Arimitsu, R. Wayne Litaker, Matthew Smith, Rance Hardison, & Steve Kibler</p>
1400	<p>SEABIRD CONSERVATION IN NW MEXICO: LESSONS FROM A SENTINEL SPECIES, THE CALIFORNIA BROWN PELICAN</p> <p>Daniel Anderson, Enriqueta Velarde, Domingo Zatarain-Gonzalez, Rosalia Avalos-Tellez, & Carlos Godínez-Reyes</p>	<p>PREDATOR-MEDIATED EFFECTS OF DROUGHT ASSOCIATED WITH POOR REPRODUCTIVE SUCCESS IN A NOCTURNAL SEABIRD IN A CROSS-ECOSYSTEM CASCADE</p> <p>Sarah Thomsen, David Mazurkiewicz, & David Green</p>	<p>WINTERING IN THE WESTERN SUBARCTIC GYRE INCREASES EXPOSURE OF RED-LEGGED KITTIWAKES TO MERCURY CONTAMINATION</p> <p>Abram Fleishman*, Rachael Orben, Nobuo Kokubun, Alexis Will, Rosana Paredes, Josh Ackerman, Akinori Takahashi, Alexander Kitaysky, & Scott Shaffer</p>

		Genetics	
1415	WHERE DO COASTAL SEABIRDS GO? THE CASE OF THE BLACK VENTED SHEARWATER Cecilia Soldatini , Yuri Albores-Barajas, Giacomo Dell'Omo, Carlo Catoni, Juan-Carlos Herguera, & Martha Rosas-Hernández	EVIDENCE FOR BI-DIRECTIONAL MIGRATION AND HISTORIC POPULATION GROWTH FROM DEMOGRAPHIC RECONSTRUCTION OF PACIFIC AND ATLANTIC LEACH'S STORM-PETREL William Hemstrom* , Brian Hoover, Gabrielle Nevitt, & Michael Miller	MICROPLASTIC POLLUTION IN FOOD WEBS OF THE NORTHEASTERN PACIFIC OCEAN: PLASTIC INGESTION BY TWO SPECIES OF FORAGE FISHES COLLECTED FROM SEABIRDS Mark Hipfner , Moira Galbraith, Strahan Tucker, Katherine Studholme, Alice Domalik, Scott Pearson, Tom Good, & Peter Hodum
1430	CONSERVATION PRIORITIES IN NORTHWESTERN MEXICO Yuri Albores-Barajas , Cecilia Soldatini, Roberto Carmona, Victor Ayala-Perez, & Gustavo Danemann	PHYLOGENETIC RELATIONSHIP BETWEEN THE AINLEY'S STORM-PETREL (OCEANODROMA CHEIMOMNESTES) AND THE TOWNSEND'S STORM-PETREL (O. SOCORROENSIS) Ana Cárdenas-Tapia , Luis Enriquez-Paredes, Yuliana Bedolla-Guzmán, Federico Méndez-Sánchez, & Faustino Camarena-Rosales	MOVEMENT PATTERNS OF CALIFORNIA BROWN PELICANS (PELECANUS OCCIDENTALIS CALIFORNICUS) FOLLOWING OILING AND REHABILITATION Juliet Lamb , Christine Fiorello, Yvan Satgé, Kyra Mills, Michael Ziccardi, & Patrick Jodice
1445	POPULATION DECLINE AND NEW NESTING SITES OF MAGNIFICENT FRIGATEBIRD (FREGATA MAGNIFICENS) IN BAJA CALIFORNIA SUR, MEXICO Gerardo Marrón , Adriana Hernández-Alvarez, Roberto Carmona, & Sergio Águila	GENETIC DIFFERENTIATION BETWEEN COLONIES OF FLESH-FOOTED SHEARWATERS (ARDENA CARNEIPES) EXHIBITING DIFFERENT FORAGING STRATEGIES Anicee Lombal* , Jennifer Lavers, Jeremy Austin, Eric Woehler, Ian Hutton, & Christopher Burridge	SEASONAL VARIABILITY IN VULNERABILITY FOR CASSIN'S AUKLET'S (PTYCHORAMPHUS ALEUTICUS) EXPOSED TO PLASTIC POLLUTION IN THE CANADIAN PACIFIC REGION Patrick O'Hara , Jocelyn Wood, Stephanie Avery-Gomm, Victoria Bowes, Laurie Wilson, Ken Morgan, Sean Boyd, Mark Hipfner, & Douglas Bertram
1500	Coffee Break		

	Comondú	Loreto I	Loreto II
	Symposium Conservation Needs in NW Mexico	Non-breeding biology Chair: Horacio de la Cueva	Contaminants Chair: Sarah Schoen
1530	SEABIRDS OF PACIFIC MEXICO: DIVERSITY, DISTRIBUTION, AND ABUNDANCE Lisa Ballance, Trevor Joyce, & Robert Pitman	NATURAL TAIL STREAMER ASYMMETRY AND APPARENT SURVIVAL OF MAGNIFICENT FRIGATEBIRDS (FREGATA MAGNIFICENS) Mónica González-Jaramillo & Horacio de la Cueva	CONTAMINANTS, FORAGING ECOLOGY, AND BREEDING HORMONES IN TWO SYMPATRICALLY BREEDING SOUTHERN OCEAN SEABIRDS Morgan Gilmour*, Jennifer Lavers, Carl Lamborg, Olivier Chastel, Stephen Kania, & Scott Shaffer
1545	THE NEED FOR IMPROVED AND RESPONSIBLE PROTOCOLS FOR SEABIRD MONITORING Juan Esteban Martinez-Gomez, Cecilia Soldatini, & Yuri Albores-Barajas	ABUNDANCE AND TEMPORARY VARIATION OF A FUNCTIONAL SEABIRD: THE RED-NECKED PHALAROPE (PHALAROPUS LOBATUS; AVES: SCOLOPACIDAE) IN THE GUERRERO NEGRO SALTWORK, B.C.S., MEXICO Victor Ayala-Perez, Roberto Carmona, & Abril Santoyo-Murillo	Physiology
			EFFECT OF PARENTAL AGE AND TELOMERE LENGTH ON OFFSPRING RECRUITMENT IN BLUE-FOOTED BOOBIES (SULA NEBOUXII) Rebecca Young, Alexander Kitaysky, & Hugh Drummond
1600	Symposium discussion	ECOLOGICAL AND DISTRIBUTION CONSEQUENCES OF WING MORPHOLOGY OF FOUR PROCELLARIIFORMES GENERA FROM THE ATLANTIC AND PACIFIC OCEANS Adriana Cáceres* & Horacio de la Cueva	THE SWIMMING SPEED-THRUST RELATIONSHIP IN FOOT-PROPELLED DIVING BIRDS AND ITS ENERGETIC AND BEHAVIORAL IMPLICATIONS Gal Ribak
1615			
1630-1730		PLENARY: Dr. Michael Brooke Seabird conservation on the Pitcairn Islands: 25 years of delight and despair	
1730		Wildlife Acoustics Workshop	
1830	Poster Reception- Centro Cultural de La Paz		

0800-1000	Meeting: Coordinating research to understand seabird bycatch in the Gulf of California purse seine fishery (San José)
815	Welcome
830	PLENARY: Dr. Stephen Votier <i>Tracking gannets: insights from 12 years of bio-logging</i>
930	Coffee Break

	Comondú	Loreto I	Loreto II
	Special Paper Session Harry Carter's Legacy Chair: Nina Karnovsky	Symposium Sternula Terns Chair: Tom Ryan	Foraging Ecology Chair: Daniel Rizzolo
1000	GOING ONCE, GOING TWICE, GONE? CALIFORNIA'S LARGEST LEACH'S AND FORK TAILED STORM-PETREL COLONIES ON THE BRINK OF EXTIRPATION? Michael Parker , Harry Carter, & Darrell Whitworth	DISCOVERY AND MONITORING OF A NEW STERNULA LORATA BREEDING COLONY IN ILO DISTRICT, SOUTH COAST OF PERU Jhonson Vizcarra , Yerko Vilina, & Karla Anfruns	HETERO-SPECIFIC GROUP FORAGING IN PYGOSELIS PENGUINS AT KING GEORGE ISLAND, ANTARCTICA Won Young Lee , Nobuo Kokubun, Seongseop Park, Noori Choi, Hosung Chung, & Jeong-Hoon Kim
1015	HISTORIAN SEABIRD BIOLOGIST EXTRAORDINAIRE: HARRY CARTER'S LEGACY AND HIS CONTRIBUTIONS TO DOCUMENTING AND ESTIMATING OIL SPILL IMPACTS ON SEABIRD POPULATIONS IN CENTRAL CALIFORNIA Kyra Mills , Curt Clumpner, & Michael Ziccardi	COMMUNITY-BASED LEAST TERN (STERNULA ANTILLARUM) CONSERVATION IN LOS CABOS, BCS, MEXICO: INTEGRATING SCIENCE AND CULTURE Karime Solano-León* , Graciela Tiburcio-Pintos, Brunilda Menares-Parra, David Acevedo-Segura, Luis Alvarez-Alvarez, Francia González-Collins, Héctor Hernández-Ceseña, Ana Pérez-Cañizares, Iridiana Salazar-Valenzuela, Gina Valenzuela-Almanza, Miguel Cruz-Ramos, & Saul Carrasco-Gonzalez	PRIOR FORAGING SUCCESS AND DYNAMIC HABITAT QUALITY MEDIATE SHORT-TERM FORAGING SITE FIDELITY IN A SEABIRD, THE LITTLE PENGUIN (EUDYPTULA MINOR) Gemma Carroll , Robert Harcourt, Benjamin Pitcher, David Slip, & Ian Jonsen
1030	CARRION AND LARGE-BILLED CROWS PREDATE JAPANESE MURRELETS ON BIROJIMA Yoshitaka Minowa , Nina Karnovsky, Yutaka Nakamura, Kuniko Otsuki, Harry Carter, & Darrell Whitworth	COMMUNITY EDUCATION IN THE CONSERVATION OF STERNULA LORATA IN CHILE Sylvia Hernández Aquez , Jurgen Rottmann, Alberto Rivera, & Bárbara Olmedo Barrera	ARE FORAGING AREAS OF ADELIE PENGUINS AFFECTED BY NEIGHBORING COLONIES? Kentaro Ito* , Yuuki Watanabe, Nobuo Kokubun, & Akinori Takahashi
1045	CORMORANT COUNTING: HARRY CARTER'S LEGACY IN THE SALISH SEA Trudy Chatwin & Mark Drever	ALTERNATE METHOD FOR ESTIMATING FLEDGLING RATES FOR CALIFORNIA LEAST TERNS (STERNULA ANTILLARUM BROWNI) Travis Wooten , Gabriela Ibarguchi, Rachel Smith, Maggie Lee Post, Katrina Murbock, Amie Aguiar, Lisa Nordstrom, Ignacio Vilchis, & Ron Swaisgood	A COMPARISON OF HERRING GULL (LARUS ARGENTATUS) FORAGING BEHAVIOR ALONG AN URBAN GRADIENT Matthew Fuirst* , Richard Veit, & Lesley Thorne
1100	COMMON MURRE RESTORATION PROJECT AT DEVIL'S SLIDE ROCK: HARRY CARTER'S VISION COMES TO FRUITION Richard Golightly , Gerard McChesney, Harry Carter, Stephen Kress, & Michael Parker	INSIGHT INTO THE ECOLOGY, POPULATION STATUS, AND LONG-TERM TRENDS OF CALIFORNIA LEAST TERNS IN SAN DIEGO COUNTY Gabriela Ibarguchi , Travis Wooten, Amie Aguiar, Rachel Smith, Maggie Lee Post, Ignacio Vilchis, & Ron Swaisgood	BREAKING THE ICE: FORAGING BEHAVIOUR RESPONSES OF BREEDING GREAT BLACK- BACKED GULLS (LARUS MARINUS) TO UNPREDICTABLE MULTI-YEAR ICE Laurie Maynard* & Gail Davoren
1115	THE GENETICS LEGACY OF HARRY CARTER Vicki Friesen & Tim Birt	A STUDY OF THE AGE STRUCTURE, SURVIVAL, AND MOVEMENT OF THE CALIFORNIA LEAST TERN Thomas Ryan , Carlos Jauregui, & Joyce Realegeno	DIVING ACTIVITY AND MOVEMENT OF NON- BREEDING COMMON MURRE (URIA AALGE) DURING TWO YEARS OF CONTRASTING OCEAN CONDITIONS Stephanie Loredó* , Rachael Orben, Rob Suryan, Donald Lyons, & Josh Adams
1130	MURRELET MADNESS: HARRY CARTER'S LEGACY WITH MARBLED, SCRIPPS'S AND GUADALUPE MURRELETS Kim Nelson , Darrell Whitworth, & Kathy Kuletz	REPRODUCTIVE BIOLOGY OF STERNULA LORATA IN MEJILLONES, CHILE Bárbara Olmedo-Barrera , Sylvia Hernández-Aquez, Jurgen Rottmann, & Alberto Rivera	FORAGING BEHAVIOUR OF THICK-BILLED MURRES BREEDING IN THE CANADIAN ARCTIC Allison Patterson* , Grant Gilchrist, & Kyle Elliott

1145	FOR TWENTY-THREE YEARS OF HARRY CARTER'S INVALUABLE CARING, AND HELP WITH LOGISTICS ON BEHALF OF THE JAPANESE MURRELET MONITORING PROJECT IN JAPAN Kuniko Otsuki	NESTING OF STERNULA LORATA (PERUVIAN TERN) IN PERU'S 13th RAMSAR SITE, MANGLARES DE SAN PEDRO, SECHURA-PIURA, NORTHWESTERN PERU Frank Suárez*	SIMILAR, BUT DIFFERENT: SYMPATRICALLY BREEDING RED-THROATED AND PACIFIC LOONS IN THE ARCTIC Daniel Rizzolo & Joel Schmutz
1200	Lunch (PSG Members Meeting--All Welcome)		

	Comondú	Loreto I	Loreto II
	Management, Policy, and Planning Chair: Roberta Swift	Symposium Sternula Terns	Foraging Ecology Chair: Fiona McDuie
1330	SEABIRD COMMUNITIES OF THE PACIFIC ARCTIC VIA THE DISTRIBUTED BIOLOGICAL OBSERVATORY, A BROAD SCALE MONITORING ARRAY Kathy Kuletz , Adrian Gall, Daniel Cushing, Erik Osnas, Tawna Morgan, & Elizabeth Labunski	BIRD CONSERVATION AS A STRATEGY FOR SUSTAINABLE TOURISM DEVELOPMENT IN LOS CABOS, BCS Graciela Tiburcio-Pintos , Rafael Marrón-Fiol, Juan Carlos Marrón-Fiol, Iván Marrón-Fiol, Sandra Silva-Laguna, José Manríquez-Lucero, Pedro Márquez-Almanza, Juana Sandez-Camilo, Ernesto Acevedo-Ruiz, Daniela Díaz-Rodríguez, Phil Sanders, Carlos Villalobos-Martínez, & Omar Legarfa-Rodríguez	VARYING PREY AVAILABILITY INFLUENCES THE DIETARY NICHE DYNAMICS OF THE SEABIRD ASSEMBLAGE ON THE NORTHEASTERN NEWFOUNDLAND COAST Edward Jenkins* & Gail Davoren
1345	MERGING SEABIRD SURVIVAL MODELING AND FOOD WEB MODELS REVEALS MANAGEMENT TRADE-OFFS Martina Kadin , Morten Frederiksen, Susa Niiranen, & Sarah Converse	AN EXAMPLE OF COMMUNITY PROTECTION FOR AN ENDANGERED SPECIES: FUNDACIÓN PARA LA SUSTENTABILIDAD DEL GAVIOTÍN CHICO Jurgen Rottmann , Alberto Rivera, Sylvia Hernández-Aquez, & Bárbara Olmedo-Barrera	IMPACTS OF PREY AVAILABILITY ON THE FORAGING BEHAVIOR AND DIET OF TWO ALCIDS IN NORTHEASTERN NEWFOUNDLAND Julia Gulka* & Gail Davoren
1400	A SEABIRD MONITORING PROGRAM FOR ONGOING AND PROSPECTIVE OFFSHORE ENERGY PROJECTS IN THE PACIFIC David Pereksta & Donna Schroeder	A DECADE OF COMMUNITY-BASED SCIENCE AND OUTREACH IN CALIFORNIA LEAST TERN CONSERVATION, LOS ANGELES COUNTY, CALIFORNIA Stacey Vigallon, Joyce Realegeno , Thomas Ryan, & Carlos Jauregui	AGGREGATION BY MULTIPLE SEABIRD SPECIES TO RAPIDLY GROWING STOCKS OF SAND LANCE (AMMODYTES, SPP.) IN MASSACHUSETTS Richard Veit & Lisa Manne
1415	POTENTIAL INTERACTION ANALYSIS OF OFFSHORE WIND ENERGY AREAS AND BREEDING AVIAN SPECIES ON THE US ATLANTIC COAST Jeri Wisman* & Sara Maxwell	CURRENT POPULATION STATUS OF THE CALIFORNIA LEAST TERN IN MEXICO Eduardo Palacios, Thomas Ryan, Edgar Amador-Silva, & Brenda Guzmán	OCEANOGRAPHIC DRIVERS OF PREY AVAILABILITY IN TROPICAL SYSTEMS: RESPONSES OF A TOP PREDATOR TO EDDIES AND FRONTAL SYSTEMS Fiona McDuie , Scarla Weeks, Mark Miller, & Brad Congdon
1430	UPDATE ON THE U.S. FISH AND WILDLIFE SERVICE PACIFIC SEABIRD PROGRAM: ACCOMPLISHMENTS AND PILOT PROJECTS TO FOSTER COLLABORATION FOR SEABIRDS IN THE PACIFIC Roberta Swift , Steve Holzman, & Kevin Kilbride	RECOMMENDATIONS FOR A TRAPPING PROTOCOL FOR ADULT LEAST TERNS Carlos Jauregui , Joyce Realegeno, Thomas Ryan, & Marissa Heyne	DIET OF RED-FOOTED BOOBIES PROVISIONING CHICKS ON OAHU: AUGMENTED WITH GENETIC ANALYSIS Sarah Donahue* , Josh Adams, David Hyrenbach, Brett Olds, & Mark Renshaw
1445	PREDICTING PREDATOR HOTSPOTS IN ATLANTIC CANADA USING SPATIALLY MODELLED SPAWNING HABITAT OF THE DOMINANT FORAGE FISH SPECIES, CAPELIN (MALLOTUS VILLOSUS) Laura Bliss* & Gail Davoren	ECOLOGICAL DEMOGRAPHY OF A STERNULA LORATA POPULATION ON THE SOUTHERN BOUNDARY OF ITS DISTRIBUTION: CONSERVATION PERSPECTIVES BASED ON THREATS/ACTIONS ANALYSIS Carlos Guerra-Correa , Christian Guerra-Castro, & Jorge Paez-Godoy	
1500	Coffee Break		

	Comondú	Loreto I	Loreto II
	Conservation Biology: Hawai'i Chair: Jenni Learned	Symposium Sternula Terns	Foraging Ecology Chair: Josh Adams
1530	PREDATOR ACTIVITY AND HAWAIIAN PETREL RECRUITMENT ON LEEWARD HALEAKALA Martin Frye , Jennifer Learned, Che Frausto, Puakea Mo'okini-Oliveira, & Jay Penniman	POBLACIÓN DE STERNULA LORATA EN LA RESERVA NACIONAL DE PARACAS Patricia Saravia & Juan Carlos Heaton	DIVING BEHAVIOR OF PINK-FOOTED SHEARWATERS (ARDEENNA CREATOPUS) REARING CHICKS ON ISLA MOCHA, CHILE Josh Adams , Jonathan Felis, Max Czapanskiy, Ryan Carle, & Peter Hodum
1545	TRENDS IN MAMMALIAN PREDATOR CONTROL TRAPPING EVENTS INTENDED TO PROTECT ENDANGERED HAWAIIAN PETREL ('UA'U, PTERODROMA SANDWICHENSIS) AT HALEAKALA NATIONAL PARK, HAWAI'I: 2000-2014 Emma Kelsey , Jonathan Felis, Josh Adams, Max Czapanskiy, Raina Kaholooa, & Cathleen Bailey	Special Paper Session Hot topics in the eastern Pacific Moderator: Adrian Gall	DATE OF BREEDING AS A PROXIMATE FACTOR TO CHANGES IN THE FORAGING EFFORT OF GUANAY CORMORANTS IN PERU Diego Gonzales-Del Carpio* , Carlos Zavalaga, Rosana Paredes, & Susana Cárdenas-Alayza
1600	HABITAT CHARACTERIZATION OF THE ENDANGERED HAWAIIAN PETREL (PTERODROMA SANDWICHENSIS) ON LEEWARD HALEAKALA, MAUI Jennifer Learned , Che Frausto, Martin Frye, Puakea Mo'okini-Oliveira, & Jay Penniman		FORAGING BEHAVIOR OF MASKED BOOBIES IN THE WORLD'S LARGEST OCEANIC DESERT Miriam Lerma* , Juan Serratos-Lopez, Guillermo Luna-Jorquera, & Stefan Garthe
1615	CONTROL OF MULTIPLE RODENT SPECIES AROUND ENDANGERED SEABIRD COLONIES ON THE ISLAND OF KAUA'I Kyle Pias , Alex Dutcher, & Andre Raine		WHAT DO MASKED BOOBIES (SULA DACTYLATRA) EAT IN THE GULF OF MEXICO? Adriana Vallarino-Moncada , Julia Ramos-Miranda, & Domingo Flores-Hernández
1630	POPULATION-LEVEL IMPACTS OF POWER LINE COLLISIONS ON ENDANGERED NEWELL'S SHEARWATERS AND HAWAIIAN PETRELS Marc Travers , Andre Raine, Angela Stemen, & Matthew McKown		ANNUAL VARIATION IN THE DIET OF THE BROWN BOOBY (SULA LECOGASTER), IN PEÑA BLANCA ISLAND, COLIMA, MEXICO Pamela Mora-Solano*
1645	LOST NUTRIENT DEPOSITION WITH SEABIRD POPULATION DECLINES IN HAWAI'I Julia Rowe , Jonathan Price, Creighton Litton, & Chris Lepczyk		INTER-ANNUAL AND INTER-SEXUAL VARIATION IN THE FORAGING AREAS OF BROWN BOOBIES AT PEÑA BLANCA ISLAND, COLIMA, MÉXICO Diego González* , Alfredo Castillo-Guerrero, Salvador Hernández-Vázquez, & Eric Mellink
1700			

1700	Student/Mentor Mixer – Hotel Araiza	
1830–2100	Lifetime and Special Achievement Awards Dinner – Hotel Marina	Beach Party – El Coromuel
End 2200		

815	Welcome
830	PLENARY: Dr. Enriqueta Velarde Teachings of the seabirds in the Vermillion Sea
930	Coffee Break and Live Photo Auction Silent Auction bidding closes at 10:00!

	Comondú	Loreto I	Loreto II
	Fisheries Chair: TBA	Breeding Biology Chair: Fernando Solís	Tools & Techniques Chair: Rachel Orben
1000	SEABIRD INTERACTIONS AND CATCH IN ALASKA TRAWL FISHERIES - SUPPLEMENTAL DATA COLLECTION REVISITED Kim Dietrich & Shannon Fitzgerald	BEHAVIORAL, GENETIC AND MICROBIAL VARIATION CORRELATES WITH FEMALE BUT NOT MALE QUALITY IN LEACH'S STORM-PETRELS (OCEANODROMA LEUCORHOA) Brian Hoover* , Sarah Jennings, Gabrielle Nevitt, Doug Pearce, & Kathryn Docherty	USE OF UNMANNED AERIAL VEHICLES TO ESTIMATE GUANO BIRD NUMBERS OFF PERU Carlos Zavalaga , Cinthia Irigoin, Diego Acosta, & Diana Luna
1015	ADDRESSING SEABIRD BYCATCH IN THE PACIFIC COAST GROUND FISH FISHERY: COLLABORATION LEADS TO FEASIBLE CONSERVATION MEASURES Laura Todd , Amanda Gladics, Tom Good, Jason Jannot, & Edward Melvin	PASSIVE ACOUSTIC MONITORING OF BONIN'S PETREL AT BREEDING SITES ON MIDWAY ATOLL Matthew McKown , Roberta Swift, Abram Fleishman, Sarah Youngren, Daniel Rapp, & Meg Duhr	ACOUSTIC MONITORING FOR SEABIRDS ON HALEAKALA, MAUI; CHANGE OVER TIME, 2014 - 2017 Jay Penniman , Jennifer Learned, Nick Gondek, Che Frausto, Jeff Schlueter, & Matthew McKown
1030	ADVANCING EFFECTIVE ECOSYSTEM-BASED FISHERIES MANAGEMENT IN THE CALIFORNIA CURRENT SYSTEM: METRICS FOR QUANTIFYING PREY AVAILABILITY TO PREDATORS TO MODEL ALLOCATIONS OF ALLOWABLE BIOLOGICAL CATCHES David Ainley , Jarrod Santora, Pete Warzybok, John Field, Brian Wells, Phil Capitolo, Jessie Beck, Ryan Carle, Erica Donnelly-Greenan, Gerard McChesney, Meredith Elliott, Russell Bradley, Kirsten Lindquist, Peter Nelson, Jan Roletto, Michelle Hester, Jaime Jahncke, & Peter Adams	PREVALENCE AND STATUS OF AVIAN POX VIRUS AND IMPLICATIONS FOR WEDGE-TAILED SHEARWATER (ARDENNA PACIFICA) COLONIES IN MAUI NUI Puakea Mo'okini-Oliveira , Jennifer Learned, & Jay Penniman	RADAR AS A TOOL TO MONITOR ELUSIVE AND NOCTURNAL SEABIRD SPECIES Carlo Catoni , Roberto Aguilar-Pulido, Carlos Ortiz de Zevallos Eguiluz, Carlos Zavalaga, & Giacomo Dell'Omo
1045	CRYPTIC SEABIRD MORTALITY ON U.S. WEST COAST PACIFIC HAKE FISHING VESSELS Jason Jannot , Tom Good, & Vanessa Tuttle	BREEDING AND BEHAVIOR OF THE TOWNSEND'S SHEARWATER (PUFFINUS AURICULARIS AURICULARIS), AN ENDEMIC SEABIRD TO THE REVILLAGIGEDO ARCHIPELAGO, MEXICO Fernando Solís Carlos , Antonio Ortiz-Alcaraz, Norma Castillo-Huerta, Braulio Rojas-Mayoral, Eva Benavides-Ríos, Yuliana Bedolla-Guzmán, Mariam Latofski-Robles, & Federico Méndez-Sánchez	APPLYING CHANGE DETECTION AND MULTI SPECTRAL IMAGE PROCESSING TOOLS TO CENSUS NESTING ALBATROSSES FROM SATELLITE IMAGERY Jane Dolliver* , Rob Suryan, Chris Noyles, Anne Nolin, & Leah Kenney
1100	MEETING CHALLENGES FOR MONITORING SEABIRD BYCATCH ON SMALL LONGLINE VESSELS USING ELECTRONIC MONITORING TECHNOLOGIES Ruth Kazmerzak , Shannon Fitzgerald, Suzanne Romain, & Farron Wallace	PREDICTING CALIFORNIA LEAST TERN (STERNULA ANTILLARUM BROWNI) CHICK SURVIVAL USING GROWTH RATES AND PARENTAL ATTENDANCE DATA Maggie Lee Post , Rachel Smith, Gabriela Ibarguchi, Travis Wooten, Amie Aguiar, Ignacio Vilchis, & Ron Swaisgood	COMPARING IMAGING, ACOUSTICS, AND RADAR TO MONITOR LEACH'S STORM-PETREL COLONIES Rachael Orben , Abram Fleishman, Abraham Borker, William Bridgeland, Amanda Gladics, Jessica Porquez, Peter Sanzenbacher, Roberta Swift, Matthew McKown, & Rob Suryan
1115	PREDICTING BYCATCH FOR BLACK-FOOTED AND LAYSAN ALBATROSSES BY JAPANESE LONGLINE FISHERIES WITH SPATIO-TEMPORAL OCEANOGRAPHIC FACTORS Daisuke Ochi , Yukiko Inoue, & Kazuhiro Oshima	RESPONSE OF RHINOCEROS AUKLETS TO AN ANOMALOUSLY POOR BREEDING SEASON Peter Hodum , Scott Pearson, & Tom Good	PLUMAGE GESTALT AS A PROXY FOR AGE-STRUCTURE: EVALUATING BREEDING PERFORMANCE OF BROWN PELICANS FROM COASTAL SURVEYS Daniel Anderson & Deborah Jaques

1130	<i>Special Paper Session</i> Impact of purse-seining Chair: Enriqueta Velarde	HIGHER REPRODUCTIVE EFFORT ASSOCIATED WITH GREATER SURVIVAL AND LONGER LIFESPAN IN CASSIN'S AUKLETS Michael Johns* , Pete Warzybok, Russell Bradley, Jaime Jahncke, Mark Lindberg, & Greg Breed	A NATIVE MUSTELID'S ROLE IN SEABIRD CONSERVATION ON HAIDA GWAIH Carita Bergman , Judson Brown, Mary Hart, Tauren Collinson, & Preston Sloan
	SEABIRD BYCATCH BY PURSE-SEINE SMALL PELAGIC FISHERY IN THE GULF OF CALIFORNIA Enriqueta Velarde , Daniel Anderson, Gabriela García- Alberto, & Ernesto Gastelum-Nava		
1145	SEABIRD BYCATCH IN PURSE SEINE FISHERIES: STATUS OF KNOWLEDGE AND MITIGATION MEASURES Cristián Suazo , Nuno Oliveira, Igor Debski, Jeffrey Mangel, Joanna Alfaro-Shigueto, Jorge Azócar, Gabriela García-Alberto, & Enriqueta Velarde	FIRST BREEDING SITE RECORD OF HORNBY'S STORM PETREL (OCEANODROMA HORNBYI), ATACAMA DESERT, CHILE Fernando Medrano , Rodrigo Barros, Rodrigo Silva, & Felipe de Groote	PREDATOR MANAGEMENT TECHNIQUES FOR THE PROTECTION OF FEDERALLY LISTED BEACH NESTING SPECIES Jake Manley
1200	Lunch (Conservation Committee Meeting--All Welcome)		

	Comondú	Loreto I	Loreto II
	<i>Special Paper Session</i> Impact of purse-seining	Breeding Biology Chair: Federico Méndez	Tracking and Distribution Chair: Takashi Yamamoto
1330	COLLECTIVE ACTION FOR THE IMPLEMENTATION OF WATER CURTAINS AS A MITIGATION MEASURE ON THE SMALL PELAGIC FLEET IN THE GULF OF CALIFORNIA Francisco Fernandez-Rivera Melo , Ernesto Gastelum-Nava, Lorena Rocha-Tejeda, & Jorge Torre	CONSERVATION STATUS OF THE ASHY STORM-PETREL (OCEANODROMA HOMOECHROA) IN MEXICO Alfonso Hernández-Ríos , Ana Cárdenas-Tapia, Esmeralda Bravo-Hernández, Yuliana Bedolla- Guzmán, Miguel Corrales-Sauceda, María Félix- Lizárraga, Alejandra Fabila-Blanco, Alfonso Aguirre- Muñoz, Annie Little, Jennifer Boyce, Eduardo Iñigo- Elías, Stephen Kress, & Federico Méndez-Sánchez	RADIO-TAGGING REVEALS UNPRECEDENTED BREEDING SEASON MOVEMENTS OF MARBLED MURRELET'S Lindsay Adrean , Kim Nelson, Cheryl Horton, Dan Roby, Matthew G. Betts, & James Rivers
1345	CHILEAN PURSE-SEINE FISHERY OVERLAP AND RISK OF BYCATCH AMONG PINK- FOOTED SHEARWATERS ARDENNA CREATOPUS BREEDING ON ISLA MOCHA Ryan Carle , Jonathan Felis, Josh Adams, Rodrigo Vega, Verónica López, Jessie Beck, Valentina Colodro, Andrés González, & Peter Hodum	SEABIRDS AS INDICATORS: UNDERSTANDING VARIABILITY IN MARINE PRODUCTIVITY AND PREY COMMUNITIES THROUGH LONG-TERM STUDIES OF REPRODUCTION, FORAGING EFFORT, AND DIET Stephanie Schneider* & Richard Golightly	MURRE MURMURS: DOES SOCIAL INFORMATION DRIVE SUBCOLONY PARTITIONING IN THICK-BILLED MURRETS? Kyle Elliott , Travis White, Shannon Whelan, Francis Van Oordt, Allison Patterson, Mark Mallory, Oliver Love, Thomas Lazarus, Michael Janssen, Grant Gilchrist, & Émile Brisson-Curadeau
1400	EVIDENCE OF ECOLOGICAL RELATIONSHIPS BETWEEN THE HEERMANN'S GULL, THE ELEGANT TERN, AND SMALL PELAGIC FISHES IN THE CENTRAL GULF OF CALIFORNIA Rigoberto Rosas-Luis , Enriqueta Velarde, David Auriolles-Gamboa, & Osvaldo Gutierrez-Benitez	BREEDING DISTRIBUTION, POPULATION STATUS AND PRODUCTIVITY OF THE BROWN PELICAN ON MEXICAN PACIFIC ISLANDS Esmeralda Bravo-Hernández , Alfonso Hernández- Ríos, Yuliana Bedolla-Guzmán, Miguel Corrales- Saucedo, María Félix-Lizárraga, Alejandra Fabila- Blanco, Annie Little, Jennifer Boyce, Eduardo Iñigo- Elías, Stephen Kress, Federico Méndez-Sánchez, Alicia Aztorga-Ornelas, & Alejandro Aguilar-Vargas	ARE MURRE'S SOCIAL FORAGERS? Émile Brisson-Curadeau* , Pierre Dutilleul, & Kyle Elliott
1415	TOWARDS A PACIFIC MONITORING NETWORK FOR A HIGHLY MIGRATORY SPECIES, THE PINK-FOOTED SHEARWATER Verónica Lopéz , Peter Hodum, Hannah Nevins, Jessie Beck, Marcelo Garcia, Cristián Suazo, & Rodrigo Vega	TOP-DOWN AND BOTTOM-UP INTERACTIONS INFLUENCE FLEDGING SUCCESS AT NORTH AMERICA'S LARGEST COLONY OF CASPIAN TERNS (HYDROPROGNE CASPIA) Stefanie Collar , Dan Roby, Donald Lyons, & Olivia Bailey	HOMEWARD BOUND: TRACKING ENDANGERED SEABIRDS ON KAUA'I Andre Raine , Megan Vynne, Scott Driskill, Marc Travers, Jonathan Felis, & Josh Adams

1430	TOWARDS THE DEVELOPMENT OF NOVEL MITIGATION MEASURES IN PURSE SEINE FISHERIES Cristián Suazo , Esteban Frere, Patricio Krause, Cristóbal Anguita, Luis Cabezas, Juan González-But, Patricio Ortiz, & Oliver Yates	IMPACT OF INTRODUCED PREDATORS ON THE REPRODUCTIVE POPULATION OF INCA TERN (LAROSTERNA INCA) IN PUNTA SAN JUAN, PERU Lyanne Ampuero & Susana Cárdenas-Alayza	DIVERSITY OF SEABIRDS IN THE SOUTHERN GULF OF MEXICO Gabriela De la Cruz Pino* , Ibiza Martínez Serrano, Enriqueta Velarde, Ernesto Ruelas Inzunza, Emilio Suárez Domínguez, & Jorge Benítez Rodríguez
1445	SARDINE FISHERY INDUSTRY IN THE GULF OF CALIFORNIA: DEVELOPMENT OF A RESPONSIBLE FISHERY Francia Zamora , Armando Coppel, & Laura Garcia	BRIDGE TO THE 21st CENTURY TOOK SIX YEARS FOR CORMORANTS TO COLONIZE Mark Rauzon	
1500	Coffee Break		

	Comondú	Loreto I	Loreto II
	<i>Special Paper Session</i> Impact of purse-seining	Population Biology Chair: Daniel Barton	Tracking and Distribution Chair: Takashi Yamamoto
1530	INTERACTION OF FISHING OPERATIONS WITH SEABIRDS IN THE SMALL PELAGIC FISHERY Carlos Hernandez-Lopez , Jesús Jurado-Molina, & Raúl Villaseñor-Talavera	ESTIMATING BREEDING POPULATION SIZE OF A CLIFF-NESTING MARINE BIRD SPECIES Jennifer Curl* , Ronald Barry, & Christa Mulder	INVESTIGATING ALEUTIAN TERN BREEDING AND FORAGING ECOLOGY USING SATELLITE TELEMTRY Donald Lyons , Kelly Nesvacil, Susan Oehlers, Jeff Mondragon, John Skinner, & Grey Pendleton
1545	IMPLEMENTATION OF BYCATCH REDUCTION PLANS IN CHILEAN FISHERIES Luis Cocas & Maria Barbieri	POPULATION ESTIMATE OF BLACK-VENTED SHEARWATER (PUFFINUS OPISTHOMELAS) ON NATIVIDAD ISLAND, MEXICO: 2016 & 2017 BREEDING SEASONS Javier Alcalá Santoyo* , Yuri Albores-Barajas, Cecilia Soldatini, José Ramos, Brad Keitt, Nick Holmes, Roberto Carmona, & Giacomo Dell'Omo	ANNUAL MOVEMENT OF STERNULA LORATA BREEDING IN PROVINCIA DE ANTOFAGASTA, II REGION DE ANTOFAGASTA, CHILE Thomas Ryan , Bárbara Olmedo-Barrera, Sylvia Hernández-Aquez, & Michael Hallworth
1600	Symposium Discussion	AT-SEA DISTRIBUTION PATTERNS AND POPULATION SIZE OF THE ASHY STORM-PETREL (OCEANODROMA HOMOCHROA) R. Glenn Ford, Scott Terrill , Steve Howell, Debra Shearwater, Linda Terrill, & David Ainley	MIGRATORY MOVEMENTS AND LAND-DEPENDENT HABITAT USE OF BROWN BOOBIES (SULA LEUCOGASTER) DURING THE NON-BREEDING PERIOD Takashi Yamamoto , Hiroyoshi Kohno, Akira Mizutani, & Ken Yoda
1615		APPLICATION OF AUTO-REGRESSIVE STATE-SPACE MODELS TO ESTIMATE POPULATION TRENDS AND OBSERVATION ERROR FROM SEABIRD COLONY COUNTS Daniel Barton , Phil Capitolo, Richard Golightly, Harry Carter, & Gerard McChesney	HABITAT SUITABILITY FOR LAYSAN ALBATROSS AND BLACK-VENTED SHEARWATER IN THE MEXICAN PACIFIC OCEAN Yutzil Lora-Cabrera , David Martínez-Cervantes, Efrén Cabrera-Ortega, Braulio Rojas-Mayoral, Yuliana Bedolla-Guzmán, Julio Hernández Montoya, Esmeralda Bravo-Hernández, Alfonso Hernández-Ríos, Evaristo Rojas-Mayoral, & Federico Méndez-Sánchez
1645-1745		PLENARY: Dr. Bob Pitman <i>Clipperton Island: Life and death of a desert tropical isle</i>	
1830		Banquet and Dance Party - Galería Galería Garden	

Poster #	Poster Title	Topic
1	DOES RESEARCHER PRESENCE AT ALEUTIAN TERN BREEDING COLONIES CAUSE INCREASED NEST DEPREDAATION RATES IN YAKUTAT, ALASKA? Janelle Lopez , Sanjay Pyare, Susan Oehlers, & Donald Lyons	Breeding Biology
2	ALEUTIAN TERN MONITORING IN THE KODIAK ARCHIPELAGO Jill Tengeres , Robin Corcoran, & Donald Lyons	Breeding Biology
3	GROWTH AND SURVIVAL OF ATLANTIC PUFFIN CHICKS IN RELATION TO DAILY PROVISIONING RATES Paula Shannon , Keenan Yakola, Stephen Kress, & Susan Schubel	Breeding Biology
4	BREEDING IN AN UNPREDICTABLE ENVIRONMENT: EFFECTS OF FORAGING NICHE BREADTH ON BREEDING PHENOLOGY Amy Miles*	Breeding Biology
5	THE INFLUENCE OF CLIMATE CHANGE, HABITAT LOSS, AND PREDATOR DISTRIBUTION ON THE DISTRIBUTION OF MARBLED MURRELETS OVER 30 YEARS IN THE PACIFIC NORTHWEST Kim Nelson , Joseph Northrup, James Rivers, Dan Roby, & Matthew Betts	Climate Change
6	AVIAN DISTURBANCE AND PREDATION AT THREE CENTRAL CALIFORNIA COMMON MURRE COLONIES Cassie Bednar , Gerard McChesney, Richard Golightly, Justin Windsor, Ryan Potter, Stefanie Collar, Amy Wilson, & Samuel Aguilar	Conservation Biology
7	TRACKING INVASIVE SPECIES ERADICATIONS AT A GLOBAL SCALE Nick Holmes , Brad Keitt, Dena Spatz, David Will, James Russell, Piero Genovesi, Phil Cowan, & Bernie Tershy	Conservation Biology
8	SEABIRD RESTORATION ON THE BAJA CALIFORNIA PACIFIC ISLANDS, MEXICO: MULTIPLE AGENCIES, TRUSTEE COUNCILS, U.S AND MEXICO ORGANIZATIONS COLLABORATING FOR SUCCESS Jennifer Boyce , Annie Little, Yuliana Bedolla-Guzmán, María Félix-Lizárraga, Alfonso Aguirre-Muñoz, Federico Méndez-Sanchez, Stephen Kress, Susan Schubel, Eduardo Iñigo-Elías, & Paula Shannon	Conservation Biology
9	HABITAT RESTORATION IMPROVES NESTING HABITAT FOR BROWN BOOBIES (SULA LEUCOGASTER) ON KURE ATOLL Ilana Nimz* , Cynthia Vanderlip, Matthew Saunter, & Naomi Worcester	Conservation Biology
10	ECOLOGY OF AN INCREASING POPULATION OF CASSIN'S AUKLETS AT AÑO NUEVO ISLAND Emily Coletta , Ryan Carle, Jessie Beck, & Michelle Hester	Conservation Biology
11	DRONES AS A NON-INVASIVE TOOL FOR OBSERVING ABUNDANCE CHANGES OF SEABIRDS IN MANGROVE AREAS Alejandra Arreola Garcia* , Christian Salvadeo, & Mario Pardo	Conservation Biology
12	COLONY AND NEST-SITE SELECTION BY ROSEATE TERNS (STERNA DOUGALLII) IN CANADA Nicholas Knutson* , Shawn Craik, & Mark Mallory	Conservation Biology
13	PATHOGEN SURVEILLANCE IN BLACK-VENTED SHEARWATER NESTING ON NATIVIDAD ISLAND, BAJA CALIFORNIA SUR, MEXICO Maressa Polito-Zamarrón* , Cecilia Soldatini, Yuri Albores-Barajas, Aines Castro-Prieto, & Sandra Gutiérrez	Conservation Biology
14	EVALUATING THE RELATIONSHIPS BETWEEN WEATHER AND NANNOTAGGED TERNS USING R-SHINY Tyler Sym* , Rachel Tham, Holly Goyert, Pamela Loring, & Kevin Rogers	Conservation Biology
15	DEATH RATES TO ESTIMATE MORTALITY OF ALCIDS IN BRITISH COLUMBIA COMMERCIAL SALMON GILLNET FISHERIES Douglas Bertram , Laurie Wilson, Kristin Charleton, April Hedd, Greg Robertson, Joanna Smith, & Ken Morgan	Fisheries
16	SALMON FRY PREDATION BY SEABIRDS NEAR A SALMON HATCHERY IN OHTSUCHI, THE SANRIKU REGION OF JAPAN Motohiro Ito, Nobuhiko Sato , Takaaki Abe, & Takashi Kitagawa	Fisheries
17	A SUMMARY OF ALBATROSS BAND RECOVERY DATA IN THE HAWAII DEEP AND SHALLOW SET LONGLINE FISHERIES John Peschon	Fisheries
18	PREDATION BY SEA DUCKS (MELANITTA SP.) ON CULTIVATED MUSSELS (MYTILUS GALLOPROVINCIALIS) IN BAHÍA DE TODOS SANTOS, ENSENADA, BAJA CALIFORNIA, MEXICO Ana Durazo-Carmona* & Horacio de la Cueva	Foraging Ecology
19	MALE AND FEMALE BLACK-TAILED GULLS FEED ON THE SAME PREY SPECIES BUT USE DIFFERENT FEEDING HABITATS Kentaro Kazama , Bungo Nishizawa, Shota Tsukamoto, Jordi Gonzalez, Mami Kazama, & Yutaka Watanuki	Foraging Ecology
20	ANNUAL COMPARISON OF FORAGING BEHAVIOR OF STREAKED SHEARWATERS IN RELATION TO THE MARINE ENVIRONMENT Sakiko Matsumoto* , Maki Yamamoto, & Ken Yoda	Foraging Ecology
21	PREY SIZE AND DELIVERY RATE OF COMMON MURRES (URIA AALGE) IN CENTRAL OREGON Ana Medina* , Jane Dolliver, Donald Lyons, & Rob Suryan	Foraging Ecology

Poster #	Poster Title	Topic
22	FORAGING MOVEMENTS AND OCEANIC HABITAT USE OF RED-TAILED TROPICBIRDS BREEDING ON OAHU, HAWAII Olivia Townsend* , Jonathan Felis, Eric VanderWerf, Josh Adams, & Scott Shaffer	Foraging Ecology
24	POPULATION GENETICS OF THE BAND-RUMPED STORM PETREL (OCEANODROMA CASTRO), AN ENDANGERED AND ENIGMATIC HAWAIIAN SEABIRD Carmen Antaky* & Melissa Price	Genetics
25	SOME ASSEMBLY REQUIRED: MONITORING SEABIRD INDICATORS FOR THE CALIFORNIA CURRENT INTEGRATED ECOSYSTEM ASSESSMENT Tom Good , Greg Williams, & Chris Harvey	Management, Policy, & Planning
26	CORTICOSTERONE AS A BEHAVIORAL DRIVER AND NUTRIENT RESPONSE IN TWO SYMPATRIC ALBATROSSES Caitlin Kroeger* , Daniel Crocker, David Thompson, Leigh Torres, Paul Sagar, & Scott Shaffer	Physiology
27	RESTING METABOLIC RATE OF RHINOCEROS AUKLETS IN AIR AND ON WATER Aika Umeyama & Yasuaki Niizuma	Physiology
28	BREEDING POPULATION TRENDS OF THE DOUBLE-CRESTED CORMORANT (PHALACROCORAX AURITUS ALBOCILIATUS) ON ISLA ALCATRAZ, GULF OF CALIFORNIA, MEXICO Erica Gaeta , McKenna Hanson, Rebecca Natoli, Lorayne Meltzer, Lisa Floyd-Hanna, & Abram Fleishman	Population Biology
29	ESTIMATING POPULATION ABUNDANCE OF ANCIENT MURRELETS ON EAST LIMESTONE ISLAND, BC, USING N-MIXTURE MODELS Vivian Pattison* , Matthew Parker, Laura Cowen, & Stephanie Korolyk	Population Biology
30	THREATS OF INVASIVE RACCOONS TO BREEDING BLACK-TAILED AND SLATY-BACKED GULLS IN NORTHERN HOKKAIDO, JAPAN Mami Kazama , Shizuku Hashimoto, Taira Usui, Takamune Takabatake, Yoshiko Murayama, & Kentaro Kazama	SPS 1: Seabird Restoration
31	IMPORTANCE OF THE LAGUNA COLOMBIA PUNTA SUR STATE ECOLOGICAL PARK FOR THE CONSERVATION OF TERNS IN COZUMEL Rafael Chacón , Paulina Sabido, & Noel Rivas	Symposium 2: Sternula Terns
32	USE OF CIRCUIT THEORY AND LEAST-COST SURFACE ANALYSES TO PREDICT AND PREVENT FERAL CAT PREDATION OF ENDANGERED SEABIRDS Alex Dutcher , Kyle Pias, & Andre Raine	Tools & Techniques
33	ANTHROPOGENIC LIGHT AT NIGHT DISTRACTS AND DISORIENTS SEABIRDS - A NEW STRATEGY TO LOCATE AND RECOVER FALLOUT BIRDS Che Frausto , Jennifer Learned, & Jay Penniman	Tools & Techniques
34	WHAT MIGHT YOU DISCOVER USING ARCHIVED SEABIRD EGGS Stacy Schuur	Tracking & Distribution
35	FIRST OBSERVATIONS OF MAGNIFICENT FRIGATEBIRD CHICK-REARING MOVEMENTS IN MEXICO Morgan Gilmour* , Adriana Vallarino-Moncada, & Alfredo Castillo-Guerrero	Tracking & Distribution
36	WHAT RISKS DO OFFSHORE LIGHTS AND FLARES POSE TO LEACH'S STORM-PETRELS IN ATLANTIC CANADA? Carina Gjendrum , Neil Burgess, April Hedd, Laura McFarlane Tranquilla, Ingrid Pollet, Robert Ronconi, & Sabina Wilhelm	Tracking & Distribution
37	ANOMALOUS OCEAN CONDITIONS COINCIDE WITH A LACK OF NESTING ACTIVITY IN MARBLED MURRELETS IN OREGON Cheryl Horton , Lindsay Adrean, Kim Nelson, Dan Roby, Matthew Betts, & James Rivers	Breeding Biology
38	A GLOBAL REVIEW OF THE MIGRATORY CONNECTIVITY OF SEABIRDS TO ADVANCE AREA-BASED PLANNING AND NETWORK APPROACHES IN AREAS BEYOND NATIONAL JURISDICTION Eleanor Heywood, Autumn-Lynn Harrison, Daniel Dunn, Corrie Curtice, Maria Dias, Lisa Ballance , Connie Kot, Sarah DeLand, Sarah Poulin, Guillermo Ortuño Crespo, Ei Fujioka, Benjamin Donnelly, Jesse Cleary, & Patrick Halpin	Tracking & Distribution
39	SEABIRD DISTRIBUTIONS AND RELATIVE ABUNDANCE IN THE CENTRAL AND EASTERN PACIFIC BASED ON AT-SEA SURVEYS, 1988-2017 Trevor Joyce , Robert Pitman, & Lisa Ballance	Tracking & Distribution
40	HABITAT USE OF TWO SLATY-BACKED GULLS DURING NON-BREEDING AND BREEDING SEASONS REVEALED BY GPS TRACKING: HIGH DEPENDENCY ON ANTHROPOGENIC HABITATS Kentaro Kazama , Bungo Nishizawa, Hiraku Senzaki, Mami Kazama, & Yutaka Watanuki	Tracking & Distribution
41	ESTIMATED IMPACT OF CROW PREATION ON JAPANESE MURRELET ON BIRO ISLAND, MIYAZAKI PREFECTURE, JAPAN Kuniko Otsuki, Harry Carter, Yutaka Nakamura, Nina Karnovsky, Yoshitaka Minowa, & Darrell Whitworth	SPS2: Harry Carter

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