

PACIFIC SEABIRDS



A Publication of the Pacific Seabird Group

Volume 43

2016

PACIFIC SEABIRD GROUP

Dedicated to the Study and Conservation of Pacific Seabirds and Their Environment

The Pacific Seabird Group (PSG) is a society of professional seabird researchers and managers dedicated to the study and conservation of seabirds. PSG was formed in 1972 out of a need for increased communication among academic and government seabird researchers. The principal goals of PSG are (1) to increase the quality and quantity of seabird research through facilitating exchange of information, and (2) to identify and assess the importance of threats to seabird populations and provide government agencies and others with expert advice on managing the threats and populations. PSG is headed by an Executive Council comprised of members volunteering their time. Members include biologists, wildlife managers, students and conservationists from the United States, Mexico, Canada, Japan and 12 other countries. PSG annual meetings and publications provide forums where members can share their findings on all research topics relating to Pacific seabirds and discuss local and large scale conservation issues. Abstracts for meetings are published on our website. PSG publishes the on-line bulletin *Pacific Seabirds* (formerly the PSG Bulletin; www.pacificseabirdgroup.org) and the journal *Marine Ornithology* (www.marineornithology.org). Other publications include symposium volumes and technical reports; these are listed near the back of this issue. PSG is a member of the Ornithological Council and the American Bird Conservancy. Annual dues for membership are \$40 (individual); \$30 (student, undergraduate and graduate); and \$1,200 (Life Membership, payable in five \$240 installments). Dues are payable to the Treasurer; see the PSG web site or the Membership Information at the back of this issue.

Website

<http://www.pacificseabirdgroup.org>

Donations

The Pacific Seabird Group is a nonprofit organization incorporated under the laws of the State of California. Contributions to the Pacific Seabird Group are tax deductible to the fullest extent allowed by U.S. law (IRS Section 501[c][3]).

Pacific Seabirds

This on-line bulletin reports on the work and committee activities of the Pacific Seabird Group, conservation news, and other items of importance to conservation of seabirds in the Pacific Ocean. The bulletin is in transition from a twice-yearly publication to an on-line news bulletin and archive of PSG activities. This issue was compiled by an interim editor and summarizes a year of PSG activities for 2016, and will be available on-line as a pdf. Back issues of the PSG Bulletin and *Pacific Seabirds* are posted on the group's web site.

Pacific Seabirds Interim Editor

Jennifer Lang, editor@pacificseabirdgroup.org

Associate Editors for This Issue

Yuri Albores-Barajas, Laura Bliss, Jane Dolliver, Marc Romano, Leslie Slater, Laura Todd; layout: Mesha Wood

Marine Ornithology

Marine Ornithology is published by the Pacific Seabird Group on behalf of a consortium of seabird groups: African, Australasian, Dutch, Japanese, Pacific, and UK. The journal is published two times a year and publishes contributed papers, forum articles, and book, website and software reviews, on all aspects of marine ornithology worldwide. For details on submitting to the journal, please go to marineornithology.org.

Change of Address

Send changes of address to the PSG Membership Coordinator, **Jennifer Lang**, membership@pacificseabirdgroup.org

PACIFIC SEABIRDS

A Publication of the Pacific Seabirds Group

Dedicated to the Study and Conservation of Pacific Seabirds and Their Environment

Volume 43

2016

Lifetime Achievement Award

Larry Spear, by Nina Karnovsky, David Ainley, Harry Carter, Lisa Ballance, Kim Nelson, Steve Howell & Scott Terrill.....4

Dr. John F. Piatt, by Dan Roby, Gus van Vliet, Bill Sydeman, and Harry Carter.....6

Special Achievement Award

Dr. Lindsay Young, by Mark Rauzon and David Duffy.....8

Gustaaf B. van Vliet, by Kim Nelson, Alan Springer, John Piatt, and George Divoky9

Regional Reports for 2015

Alaska and Russia11

Washington and Oregon14

Northern California18

Southern California.....19

Hawai'i.....20

Non-Pacific United States20

Latin America21

Canada22

Asia and Oceania25

Europe and Africa28

Circumpolar28

Antarctica28

Reports of PSG Officers for 2015

Chair's Report29

Chair-elect's Report.....30

Past Chair's Report31

Vice-Chair for Conservation's Report.....33

Treasurer's Report33

Reports to PSG Executive Council for 2015-2016

Northeast Asia Seabird Conservation Committee.....37

Kittlitz's Murrelet Technical Committee38

Scripps's Murrelet and Guadalupe Murrelet Technical Committee.....38

Marbled Murrelet Technical Committee.....40

Aleutian Tern Technical Committee40

Seabird Monitoring Committee.....41

Craig S. Harrison Conservation Fund Committee.....42

Elections Committee Report43

PSG Listserv.....44

Membership Report45

Corresponding Membership Committee47

Marine Ornithology47

Student Representative50

Ornithological Council.....50

World Seabird Union52

PSG News.....53

Meeting News54

Summary of Executive Council Meeting Minutes.....56

General Information

Information on the Pacific Seabird GroupInside Front Cover

Publications of the Pacific Seabird Group.....58

PSG Committee Coordinators60

PSG Life Members and Recipients of Awards62

Membership Information63

PSG Executive Council for 2015Inside Back Cover

LIFETIME ACHIEVEMENT AWARD

The Pacific Seabird Group occasionally honors major contributors to seabird science and conservation with Lifetime Achievement or Special Achievement awards. The Lifetime Achievement Award recognizes individuals whose outstanding work for seabirds have influenced the course of research, conservation, and/or education throughout the world.

LARRY SPEAR

By Nina Karnovsky, David Ainley, Harry Carter, Lisa Ballance, Kim Nelson, Steve Howell, and Scott Terrill

In February 2016, the Pacific Seabird Group honored Larry Spear with a Lifetime Achievement Award. Throughout his career, Larry answered seminal questions about seabird ecology with bold and creative study designs and extraordinary observation skills, determination, and passion for understanding seabirds. His investigations began in the Pacific Northwest and expanded to the Beaufort, Bering, Scotia, and Bellingshausen seas, to the Eastern Tropical and Northern Subarctic Pacific, to the Indian Ocean, and to the Sea of Cortez; to Hershel, the Farallones, Ross and King George Islands, and the islands of Bahia de Los Angeles. His legacy of clear and concise scientific papers continues to inspire



Larry with taxidermied study skins of petrel species. Photo credit: Nina Karnovsky



Larry wearing a Halloween mask to study gull facial recognition.

and shape the current field of seabird research.

Larry Spear received his B.S., with Honors, from the Department of Wildlife & Fisheries Biology, University of California, Davis, in 1978; and his M.Sc. in Marine Science, Moss Landing Marine Laboratories, in 1986. The latter required him living in his car for three years, traveling up and down the West Coast from Seattle to San Diego, stopping at all the fish-processing plants, fishery vessel wharfs, dumps, and river mouths, and keeping track of two cohorts of Western Gulls that he had banded as chicks on the Farallones. His thesis, "Dispersal in the Western Gull," was published in *The Auk*. He went on to write 11 papers about Western gull life-history strategies, from hatching to senescence, published in *The Auk* (3X),

Journal of Animal Ecology (2X), *Studies in Avian Biology*, *The Condor* and elsewhere. His piece in *Natural History Magazine*, about how a Halloween mask can fool gulls into misidentifying humans, was recognized by the magazine as the article of the decade - his observation grew from necessity, because near the end of his study, gulls flew away if they saw Larry Spear approaching their nest but not Richard Nixon!

He then set out to understand the at-sea ecology of seabirds. He pioneered the concept of 'flux,' whereby the speed and direction of a bird relative to the speed and direction of the research platform transforms what we perceive as bird 'density.' He developed the only existing technique to accurately determine the population size of burrow-

LIFETIME ACHIEVEMENT AWARD • Dr. Larry Spear

nesting species (published in *Journal of Applied Ecology*) from at-sea data. His analyses of seabird flight behavior, speed, and height have since been frequently cited, including most recently as offshore wind turbines are becoming more and more common.

Perhaps his greatest contribution is a series of papers, 33 thus far, derived from his investigation of the at-sea biology of seabirds, including those of the Southern Ocean, Peru Current and the eastern tropical Pacific. Within that body of work he showed convincingly that, indeed, many seabirds do feed at night, and take food appropriate to their bill size even within individual foraging flocks; rediscovered the thought-to-be extinct *Fregetta grallaria titan* subspecies of White-bellied Storm-Petrel; showed

that eating plastic negatively affects seabird well-being; discovered mimicry in Kermadec Petrels that was of a form not yet described in vertebrates (i.e. the avoidance of such kleptoparasites that affect seabird prey size); revealed how morphological differences between polar and tropical seabirds relate to their respective wind fields; described the Pacific Basin-wide migration of Sooty Shearwaters, now confirmed by satellite telemetry; and estimated the true population of the Hawaiian Petrel, much higher than thought at the time and now confirmed by the discovery of new nesting populations. His paper on mimicry in Kermadec Petrels was deemed so important that it elicited special recognition in an article in *Science* written by Jared Diamond. Since his death, two monographs of his

have been published: one on the diet of an entire mid-ocean seabird fauna and the other on the at-sea biology of storm-petrels of the eastern Pacific.

Larry's legacy also lives on in museum collections; taught by Ron Cole, protégé of Joseph Grinnell, he became a master taxidermist whose study skins, skeletons and preserved specimens, with their associated data continue to make significant contributions to our knowledge of seabirds, in part through his teaching of this art to others. In recognition of a passionate scientist whose unstinting focus on solving unanswered questions about seabirds led to many profound discoveries, the Pacific Seabird Group honors Larry Spear posthumously with a Lifetime Achievement Award.

Larry in his element. Photo credit: Nina Karnovsky



LIFETIME ACHIEVEMENT AWARD

The Pacific Seabird Group occasionally honors major contributors to seabird science and conservation with Lifetime Achievement or Special Achievement awards. The Lifetime Achievement Award recognizes individuals whose outstanding work for seabirds have influenced the course of research, conservation, and/or education throughout the world.

DR. JOHN F. PIATT

By Dan Roby, Gus van Vliet, Bill Sydeman and Harry Carter



John Piatt scanning for Black-legged Kittiwakes near a colony on Chisik Island in Cook Inlet, Alaska in August 2016. Photo credit: Sarah Schoen

During its 43rd Annual Meeting at the Turtle Bay Resort on Oahu, Hawai'i, in February 2016, the Pacific Seabird Group presented Dr. John F. Piatt with a Lifetime Achievement Award in recognition of his significant contributions, not just in the field of seabird ecology, but also marine ecosystem ecology, fisheries science, and marine conservation. John's great influence as a much-respected scientist on the international stage has made him a highly deserving recipient of the PSG Lifetime Achievement Award.

John has been a Research Wildlife Biologist with the U.S. Geological Survey-Alaska Science Center for over 25 years, and an Adjunct Professor in the School of Aquatic and Fishery Sciences at the University of Washington since 2005. He has also served as Affiliate Faculty with the Department of Fisheries and Wildlife at Oregon State University. Early in his career, John worked extensively on the ecology of

Atlantic seabirds and fish, focusing on seabird-forage fish predator-prey interactions in Newfoundland, Canada, where he received his Ph.D. from Memorial University in 1987. He moved to Alaska in 1988, and has been focused on Pacific Ocean seabird research and conservation issues ever since, becoming particularly enthralled by some of the least-known Pacific alcids including Marbled and Kittlitz Murrelets.

Throughout his career, John has focused on studies of marine ecology at upper trophic levels, seabirds and marine mammals, temperate to subarctic marine ecosystems, and particularly conservation. As a leader in the study of seabird ecology in the North Atlantic and North Pacific over the past three decades, he has had major impacts on the field by 1) placing seabirds in the larger context of marine ecosystems (i.e., seabirds as ecological indicators, biogeography of the North Pacific), 2) conducting detailed field-oriented

studies on the population ecology of endangered and threatened species, and 3) providing precise accounting of the impacts of pollution events on marine wildlife. Owing to his production of high profile papers on topics of great interest to society, John ranks amongst the top seabird ecologists in the world. He continues to display strong leadership in the field as the Principal Investigator for the Seabird and Forage Fish Project at the USGS-Alaska Science Center, and by identifying and addressing seabird research priorities throughout the Northern Hemisphere.

John has been enormously productive, having authored or co-authored over 170 peer-reviewed scientific publications, including journal articles, book chapters, edited volumes, symposium proceedings, and book reviews, as well as over 110 technical and contract reports, many for multi-disciplinary marine ecology projects. He has contributed to over 100 technical presentations at professional meetings just in the last eight years, and was the presenter for about 30 of those. John has also served as Chair-elect, Chair, and Past-Chair of the Pacific Seabird Group during 1993-1995, Associate Editor for *The Auk*, Contributing Editor for *Marine Ecology Progress Series*, and a member of the Science Panel for the North Pacific Research Board.

John has led or worked collaboratively on numerous research teams with a number of major scientific and conservation accomplishments as a result, including:

- one of the first to demonstrate the devastating impacts of gill nets and oil pollution on seabird populations in the northwestern Atlantic Ocean. Among other

LIFETIME ACHIEVEMENT AWARD • Dr. John F. Piatt

- findings, these studies documented that murres can dive to a depth of 200 m in pursuit of prey;
- demonstrated a dramatic shift in marine food web structure in the Gulf of Alaska in the mid-1970s, with impacts to upper trophic level fish (groundfish) and seabirds in one of the first papers to document effects of the Pacific Decadal Oscillation on pelagic ecosystems of the North Pacific; this and later work has had profound implications for our understanding and management of marine fisheries and the ecosystems on which they depend relative to climate change;
 - led a high profile and challenging analysis to quantify the immediate impact of the Exxon Valdez oil spill on mortality of seabirds throughout the oil spill area in Alaska, extending from Prince William Sound to the Alaska Peninsula. This oil spill was one of the largest anthropogenic catastrophes to ever occur in the world and especially in the northeastern Pacific, and its impact on marine bird populations would not have been as fully or accurately documented without John's knowledge, courage, and leadership;
 - a world-renowned expert on two rare and declining alcid species endemic to the North Pacific, the Marbled and Kittlitz's murrelets. John has contributed to major breakthroughs in our understanding of their unique ecologies, and some of the marine and terrestrial factors responsible for their declines. He also led a major status assessment for Marbled Murrelets in Alaska;
 - led the design, establishment, and implementation of the North Pacific Pelagic Seabird Database (NPPSD) which subsequently has been used to identify foraging "hotspots" and prospective Marine Protected Areas for one of the world's rarest seabirds, the Short-tailed Albatross. More recently, John has used the database to provide support for the hypothesis that overall seabird densities in the northeastern Pacific have declined over the past four decades;
 - co-led a multi-agency, international symposium and workshop to assess the role of seabirds as indicators of change in marine ecosystems, resulting in a special volume in Marine Ecology Progress Series and publication of a landmark paper testing hypotheses regarding the responses of breeding seabirds

to changes in their prey resources; and

- played a pivotal role in assessing the importance of forage fishes as a key link in marine food webs, and assess the impact of the depletion of forage fishes on seabirds at a global scale. This on-going effort produced a paper in *Science* that made the strong case for leaving "one-third for the birds" to assure that anthropogenic prey depletion does not result in widespread declines in seabird populations world-wide.

Based on these key contributions and many others too numerous to list here, the Awards Committee for the Pacific Seabird Group found Dr. John F. Piatt highly deserving of its Lifetime Achievement Award. Thank you, John, for your service, dedication, commitment and enthusiasm for expanding our understanding of seabird ecology and conservation, as well as the marine ecosystems on which seabirds depend. Congratulations on this richly-deserved Lifetime Achievement Award from the Pacific Seabird Group.

John with Gus van Vliet and Kevin Bell.



SPECIAL ACHIEVEMENT AWARD

The Pacific Seabird Group occasionally honors major contributors to seabird science and conservation with Lifetime Achievement or Special Achievement awards. PSG's Special Achievement Award recognizes an individual who has performed outstanding, long-term service for the Pacific Seabird Group, or who has achieved an outstanding and significant exemplary accomplishment for the betterment of seabird research, education, and/or conservation, or both.

DR. LINDSAY YOUNG

By Mark Rauzon and David Duffy

Lindsay & Eric VanderWerf banding a Laysan Albatross. Photo credit: Eric VanderWerf



The Pacific Seabird Group awarded Dr. Lindsay Young with a Special Achievement Award in recognition of her perseverance to protect and conserve Hawaiian seabirds, and her sustained commitment to the Pacific Seabird Group.

As one of the youngest recipients of this award, Lindsay is recognized for her contributions to tropical seabird conservation and dedication to our organization. Lindsay is the executive director of Pacific Rim Conservation, a non-profit organization she co-founded with her husband, Eric VanderWerf to address research and management needs of native species across the Pacific. Lindsay earned a B.S. degree from the University of British Columbia, and an M.Sc. and Ph.D. in zoology from the University of Hawai'i studying albatross. In 2011, she pioneered predator-proof fencing in the U.S. Noting the success of expensive predator-proof fences

in creating "mainland islands," she focused on creating one on the island of Oahu to protect a peninsula where shearwaters, albatrosses, and native plants struggled for a foothold. She coordinated the Kaena Point Ecosystem Restoration Project at Kaena Point first by mobilizing a support team. While facing a daunting maze of red tape and community resistance, she persevered in finding the funds to establish a seabird community by building a predator-proof fence, restore habitat, and attract and translocate seabirds. In 2014, she oversaw the construction of a predator-proof fence at Kilauea Point National Wildlife Refuge on Kaua'i, followed by intensive habitat restoration prior to translocating Hawaiian Petrels and Newell's Shearwaters. The first Hawaiian Petrel translocation at the site was successfully completed in the fall of 2015 and will be followed by translocating Newell's Shearwaters in 2016. A predator-proof fence was also completed in 2016 on the James Campbell National Wildlife Refuge on Oahu as the third predator-proof fence in Hawai'i.

Lindsay's own research has focused on the demography of Laysan Albatrosses,

and the evolutionary significance of same-sex pairing in that species. Out of these years of study, Lindsay has authored several dozen scientific papers.

An inspiration to early-career-stage biologists, she first served as PSG's local committee in 2012 to host the annual conference. When the hotel declared bankruptcy, she successfully arranged another venue in short order, allowing the conference to go ahead as scheduled. Also, when the position of Treasurer suddenly became vacant in 2012, she stepped in without terribly audible complaints, serving two years as treasurer initiating the first formal audit of our books. Again, in 2016, she served as the local chair of PSG and served as the chair of the North Pacific Albatross Working Group, and the North Pacific correspondent for ACAP (Agreement on the Conservation of Albatrosses and Petrels), in addition to helping local Hawaiian environmental issues.

Lindsay is undeterred in her pursuit of her goals and PSG has been the beneficiary of her perseverance. She is well-deserving of the Special Achievement Award and look forward to seeing what else she accomplishes in her career.

Lindsay checking a brood on Kaena Point in 2005. Photo credit: Eric VanderWerf



SPECIAL ACHIEVEMENT AWARD

The Pacific Seabird Group occasionally honors major contributors to seabird science and conservation with Lifetime Achievement or Special Achievement awards. PSG's Special Achievement Award recognizes an individual who has performed outstanding, long-term service for the Pacific Seabird Group, or who has achieved an outstanding and significant exemplary accomplishment for the betterment of seabird research, education, and/or conservation, or both.

GUSTAAF B. VAN VLIET

By Kim Nelson, Alan Springer, John Piatt, and George Divoky

The Pacific Seabird Group honored Gus van Vliet with a Special Achievement Award in February 2016 at Turtle Bay, Oahu.

Gus was born in the old whaling town of Krimpen aan de Lek, in the province of South Holland, the Netherlands. He spent his early years in Holland, but at age 7 moved with his family to Grand Rapids, Michigan. He began his career in ecology and ornithology at the University of Michigan in 1970, where he received a B.S. in zoology. Spencer Sealy, Erica Dunn, Bob Storer, and Bob Payne were all at the University of Michigan's Museum of Zoology at that time and mentored Gus in avian ecology and marine bird research. Gus has been a long-time member of PSG, attending the first organizational meeting while still an undergraduate in 1972 and has presented his research at several subsequent meetings.

In 1975 Gus moved to Seattle, Washington, continuing his westward migration. He served as a National

Gus in 1993 with a Marbled Murrelet at the Institute for Advanced Brachyramphus Studies, Auke Bay, Alaska.



Gus photographing murrelets in Glacier Bay, Alaska in 1994.

Marine Fisheries Service observer aboard Japanese longlining vessels. Gus was amongst the first US observers on the foreign fishing fleet operating on the North Pacific. While onboard he studied

the marine avifauna associated with the fishery on four different vessels, on board each for a month, traveling from Dutch Harbor to the Shumagin, Semidi, Kodiak, and Middleton Islands, and then to the Pribilof Islands and down to Atka Island in the central Aleutian Islands.

After studying seed dispersal variability into tropical rainforest windfall gaps on Barro Colorado Island, Panama, on a Smithsonian Tropical Research Institute Noble Fellowship in 1978, Gus became a graduate student in Bob Paine's lab at the University of Washington. There he studied partial predation, on colonial marine organisms, as well as the impact of variability in productivity on community dynamics and structure. From this arose his early conviction that predation could be a strong structuring force in marine bird and mammal populations.

SPECIAL ACHIEVEMENT AWARD • Dr. Gustaaf B. Van Liet

In 1983 Gus moved to Juneau, Alaska (and then to nearby Auke Bay, for, well, obvious reasons), where he not only began his pioneering ecology, conservation and advocacy work with auks and other seabirds, but developed a driven interest in biological oceanography and trophic webs, with an emphasis on top-down controls within marine food webs, including marine mammals and fish. Over the subsequent decades Gus conducted research in the Gulf of Alaska, Bering Sea, Aleutian Islands, Chukchi Sea, northern Canada, and the northwest Pacific Ocean. Much of his work was in close collaboration with others, particularly Alan Springer and John Piatt. Examples of his work during this time included: (1) working aboard the RV Thomas Thompson in the northern Bering and southern Chukchi seas, part of an interdisciplinary oceanographic study led by the University of Alaska Fairbanks called ISHTAR, that was designed to identify the physical drivers and ecological processes that are responsible for the prodigious productivity of this region; (2) working in the Aleutian Islands and Northwest Passage looking at patterns in the distribution of fish and seabirds in relation to shelf-like habitat and thus the relationships between physical environments and food webs; and (3) working across the Northwest Pacific on the RV Hai Kung of the Taiwanese Fisheries Research Institute, where he

Gus holding a Streaked Shearwater on the RV Hai Kung west of the Ogasawara Islands, Philippine Sea in 1989



conducted seabird transects as part of a meso-scale neon flying-squid study.

In addition to his oceanography and marine food webs research, Gus has conducted amazing and groundbreaking work to promote the ecology and conservation of auks, particularly Kittlitz's (KIMU) and Marbled (MAMU) Murrelets. Soon after moving to Auke Bay in 1987 Gus established his apocryphal Institute for Advanced Brachyramphus Studies, i.e., his cabin on the shore that provided an uncommon opportunity to study MAMU at close range throughout their annual cycle. Gus was an instigator and was involved in the first KIMU dawn watches and the first recording of KIMU vocalizations. He is constantly out in the field trying to make new MAMU and KIMU discoveries. Gus has recorded observations collected from Auke Bay and elsewhere in SE Alaska with details on MAMU, such as arrival and departure dates, numbers, fish holding, and behavior. He was the first to identify KIMU as the Glacier Murrelet and helped find some of the early MAMU ground nests. He spearheaded efforts to study temporal and spatial use of Auke Bay by murrelets, in relation to tides and weather. Gus has often been in the vanguard, advocating the conservation of auks while encouraging research on their biology. The depth of his commitment, interest in and knowledge of all Pacific auks and other marine birds, has been an inspiration to others. He has mentored many of us over the years and we have been the lucky recipients of endless detailed letters (now emails) on auk behavior, the latest sightings, hot-off-the-press papers, and insights into the functioning of marine food webs.

Gus's body of work is as noble as it is legendary; great science lasts forever and great scientists always astound us. Gus's legacy will live on in the many scientists he has mentored and his many publications on murrelets, auks, ecology,



*Gus at a *Cepphus* nest crevice on Hekkingen Island, northern Norway in 1973*

conservation, community dynamics, oceanography, food webs, whales, and fish. A partial list of his publications are available at: https://www.researchgate.net/profile/Gus_Van_Vliet.

What is most amazing about Gus is that he did all this work on seabirds and oceanography while at the same time having another life. He retired in 2015 from a 25-year career with the Alaska Department of Environmental Conservation, where he worked throughout the state within all pollution media, including air quality, water quality, contaminated sites, and oil spill response and prevention.

We are honored to present Gus van Vliet with PSG's Special Achievement Award in recognition of his pioneering contributions to the conservation of Kittlitz's and Marbled Murrelets in Alaska, his key and important research on biological oceanography and trophic webs, his decades of commitment to understanding and protecting seabirds, and the inspiration he has provided all of us by opening our hearts and minds to the wonder and beauty of Pacific auks and seabird ecology.

REGIONAL REPORTS FOR 2016

Edited by Laura Todd, Leslie Slater, and Jennifer Lang

Compiled by Robb Kaler

ALASKA & RUSSIA

Compiled by Robb Kaler

ARCTIC

Autumn-Lynn Harrison (Smithsonian Migratory Bird Center [SMBC]); **Mark Maftei** (High Arctic Gull Research Group), **Arliss Winship**, (National Oceanic and Atmospheric Association [NOAA]); and **Jessica Meir** (National Aeronautics and Space Administration [NASA]) have deployed 14 GPS-Argos satellite tags on 13 immature Glaucous Gulls (*Larus hyperboreus*) and one adult, captured during October of 2015 and 2016. The project is a part of the SMBC's Migratory Connectivity Project [www.migratoryconnectivityproject.org] with the goal of revealing migratory patterns of understudied fauna, and to provide valuable movement data and habitat associations of major consumers in the Arctic and North Pacific. An initial pilot sample size in 2015 revealed 1st winter Glaucous Gulls tagged in Barrow, Alaska in October migrated west to Russia, where most spent the entire winter and summer, moving north with retreating ice.

Principle investigators **Joel Schmutz** (U.S. Geological Survey Alaska Science Center [USGS-ASC]), **Autumn-Lynn Harrison**, (SMBC), **Rob Suryan** (Oregon State University), **Carrie Gray** (Biodiversity Research Institute), and a field team composed of **Brian Uherkoch**, **Dan Mulcahy**, **Ray Buchheit**, **Andrew Myers**, **Tim Spivey**, (USGS-ASC), and **Scott Ford** (Avian Specialty Veterinary Service) deployed 30 Argos satellite tags surgically implanted in adult breeding Pacific Loons (*Gavia pacifica*) on the North Slope (n=15) and Yukon-Kuskokwim Delta of Alaska (n=15). The project is a part of the Smithsonian Migratory Bird Center's Migratory Connectivity Project in partnership with USGS Alaska Science Center. Live tracking data can be viewed on [www.migratoryconnectivityproject.org/livetracks/] and are currently

revealing migratory divides between the two populations with North Slope birds migrating west to Russia and Asia and Yukon-Kuskokwim Delta birds migrating south to the Aleutians and California Current.

BERING AND CHUKCHI SEAS

Adrian Gall (ABR, Inc. – Environmental Research and Services [ABR]) led a team that conducted seabird surveys in Kotzebue Sound, AK in June and July 2016. For each one-week survey period, an ABR biologist teamed up with Kotzebue resident and boat captain **Robert Shaeffer** to conduct surveys from his vessel, a 24-ft landing craft. His expert seamanship and knowledge of marine ecology ensured the success of our efforts. We were fortunate to have ideal weather for these surveys and covered systematic transect lines that radiated out 30 NM from Kotzebue to cover the northern half of Kotzebue Sound and even made it down to the Chamisso Islands for a quick peak at the seabird colonies that are part of the Alaska Maritime National Wildlife Refuge. In July, ABR biologist **Ashley Hovis** also conducted interviews to gather indigenous knowledge related to seabird and marine mammal distributions in Kotzebue Sound. This project is part of the Northwest Arctic Borough's Science Program (<http://www.nwabor.org/departments/science/>) that addresses local research priorities by integrating science and traditional knowledge.

Don Dragoo and **Steve Ebbert** (Alaska Maritime National Wildlife Refuge [AMNWR]) collected data on populations of Common Murres (*Uria aalge*), and Thick-billed Murres (*U. lomvia*); as well as productivity of Black-legged Kittiwakes (*Rissa tridactyla*), at Cape Lisburne, Alaska. Annual seabird monitoring at St. George and St. Paul islands was led by **Marc Romano** (AMNWR) with summer-long field crews consisting of **Greg Thomson**,

Ryan Mong and **Dustin Carl** (St. Paul), and **Jason Tappa**, **Kristina McOmber**, and **McKenna Hanson** (St. George). Both crews collected productivity, diet and survival data on a variety of species including Red-faced Cormorants (*Phalacrocorax urile*), Common Murres (*Uria aalge*), Thick-billed Murres (*Uria lomvia*), Least Auklets (*Aethia pusilla*), Black-legged Kittiwakes (*Rissa tridactyla*), and Red-legged Kittiwakes (*R. brevirostris*).

Kathy Kuletz and **Liz Labunski** (U.S. Fish and Wildlife Service [USFWS]) completed their eleventh year of pelagic seabird surveys in the Bering and Chukchi seas. In 2016, seabird observers were placed on five Bering or Chukchi research cruises from July to early October. The seabird surveys were funded by the Bureau of Ocean Energy Management (BOEM), the North Pacific Research Board (NPRB), and USFWS. Leads for the research cruises included NOAA, University of Alaska, and Fisheries and Oceans Canada. The 2016 seabird observers in this region were **Liz Labunski**, **Martin Reedy**, **Tamara Zeller**, and **Andrew Bankert**. Data from all of the at-sea surveys will be archived in the North Pacific Pelagic Seabird Database, and will also be accessible on the Alaska Ocean Observing System web site following completion of the respective projects.

Catherine Pham (Hawai'i Pacific University) continued analysis from survey data collected as part of the Arctic Ecosystem Integrated Survey (Principal Investigator, **Kathy Kuletz**). This was a multi-agency funded collaboration that included oceanographic, plankton, and fish sampling in 2012 and 2013 in the northern Bering and Chukchi seas. Catherine successfully completed her Master's degree using these data in September 2016, with **David Hyrenbach** as her major professor. A follow-up ecosystem project, the Arctic Integrated Ecosystem Research Project (AIERP) was recently awarded by the NPRB and

REGIONAL REPORTS

BOEM. This five-year project will have its first of three field seasons in 2017. **Kathy Kuletz** is Principal Investigator for the seabird component of the project.

Martin Renner, working with **George L. Hunt, Jr., Jarrod Santora, Lisa Eisner, Kathy Kuletz, Carol Ladd, Sigrid Salo, Patrick Ressler, John Piatt, and Gary Drew**, published a retrospective analysis on the lag-effects of the timing of spring sea-ice-retreat on the summer seabird community, zooplankton, and forage fish in the Southeast Bering Sea (Renner et al. 2016, *Biology Letters* 12: 20160276).

Rachael Orben, Alexander Kitaysky (University of Alaska Fairbanks), **Rosana Paredes** (Oregon State University), **Abram Fleishman** (San Jose State University), and **Scott Shaffer** (San Jose State University), in collaboration with **Marc Romano** (Alaska Maritime National Wildlife Refuge), continued a study of carry-over effects on movements and life-history responses of red-legged kittiwakes (*Rissa brevirostris*) at St. George Island, Alaska. In May and June 2016, **Rachael Orben, Abram Fleishman** and **Caitlin Kroeger** (University of California Santa Cruz), recovered overwinter loggers, deployed GPS tags during pre-lay and incubation along with over-winter loggers.

Ed Melvin (Washington Sea Grant), **Rob Suryan, Amanda Gladics** (Oregon State University), **Kim Dietrich** (Kim Dietrich Consulting), and **Tracee Geernaert** (International Pacific Halibut Commission) continued a project to assess characterization of spatiotemporal patterns and trends in albatross and other seabird bycatch rates in Alaskan longline fleets based on over 20 years of NOAA groundfish fisheries observer data. The team expanded outreach to the Alaska longline fishing industry and conducted seabird bycatch avoidance best practice workshops at various ports in Alaska and Seattle.

ALEUTIAN ISLANDS

Annual seabird monitoring at Buldir and Aikta islands was led

by **Nora Rojek** (AMNWR) with summer-long field crews. On Buldir, **Kevin Pietrzak, McKenzie Mudge** and **Stephanie Walden** collected productivity, diet and population data on a variety of species including Red-legged (*Rissa brevirostris*) and Black-legged Kittiwakes (*R. tridactyla*); Least (*Aethia pusilla*), Crested (*A. cristatella*), Whiskered (*A. pygmaea*), and Parakeet Auklets (*A. psittacula*); Common (*Uria aalge*) and Thick-billed Murres (*Uria lomvia*); along with Fork-tailed (*Oceanodroma furcata*) and Leach's storm-petrels (*O. leucorhoa*). On Aikta, **Sarah Youngren** and **Dan Rapp** monitored Horned (*Fratercula corniculata*) and Tufted Puffins (*F. cirrhata*), Glaucous-winged Gulls (*Larus glaucescens*), Common and Thick-billed Murres, and Ancient Murrelets (*Synthliboramphus antiquus*).

Martin Renner, working with NOAA, USFWS, U.S. Geological Survey, and the Wildlife Conservation Society, is working to model the risk of 'rat spills' for seabirds, using the expected frequency of shipwrecks on Aleutian and Bering Sea islands and merging that with seabird colony data.

For the sixth consecutive season, Kittlitz's Murrelet (*Brachyramphus brevirostris*) nesting ecology was studied at Adak Island. In collaboration with **Lisa Spittler** and **Nora Rojek** (AMNWR), **Robb Kaler** (U.S. Fish and Wildlife Service-Migratory Bird Management) and **Leah Kenney** (U.S. Fish and Wildlife Service-Anchorage Field Office) spent one week in June and one week in September to locate nests, deploy time lapse cameras, and return to collect cameras and nest vegetation information. Six nests were located; only one nest survived to the nestling phase, and overall nest success was 0%.

GULF OF ALASKA

At East Amatuli Island, **Arthur Kettle** (AMNWR) installed time-lapse cameras for season-long monitoring of Black-legged Kittiwake (*Rissa tridactyla*) and Common Murre (*Uria aalge*) breeding success. In August,

he, **Georgia Lucas**, and **Dana Nelson** surveyed monitoring plots of Fork-tailed Storm-Petrels (*Oceanodroma furcata*) and Tufted Puffins (*Fratercula cirrhata*).

Kodiak National Wildlife Refuge (Kodiak NWR) biologist **Robin Corcoran** (USFWS) completed the sixth year of breeding nearshore marine bird surveys in June and August on the west side of Kodiak Island. This is a skiff-based line transect survey with the goal of determining population estimates, long-term trends, and habitat associations for key marine bird species including Marbled Murrelet (*Brachyramphus marmoratus*), Pigeon Guillemot (*Cephus columba*), Arctic and Aleutian Tern (*Sterna paradisaea* and *Onychoprion aleuticus*), Harlequin Duck (*Histrionicus histrionicus*), and Black Oystercatcher (*Haematopus bachmani*). Approximately 20% of the 1000 km shoreline was systematically surveyed. **Robin Corcoran** also continued to monitor Aleutian and Arctic Tern colonies along the Kodiak road system and in remote locations on Kodiak NWR in summer 2016. Multiple counts were made at six colonies, and digital game cameras were placed at Aleutian Tern nests at one colony to record incubation behavior and nest survival.

Robin Corcoran (USFWS), **James Lovvorn**, and **Timothy Knudson** of Southern Illinois University (SIU) completed the ninth season of nesting ecology research for the Kittlitz's Murrelet (*Brachyramphus brevirostris*, KIMU) on the western end of the Kodiak NWR. A field team of seven systematically searched scree and talus slopes to locate nests camouflaged among the rocks. Game cameras were placed at nest sites to monitor nest fate, incubation shifts, chick feeding rates, and predation events. In 2016, 17 active KIMU nests were discovered. Seven nests reached chick stage and three successfully fledged (18%). Red fox (*Vulpes vulpes*) were the only documented nest predator and were responsible for failure at 13 nests (77%). Over nine years, 146 active nests have

REGIONAL REPORTS

been found with apparent nest success of 23%. The percentage of Pacific sand lance (*Ammodytes hexapterus*) delivered in 2016 was the lowest seen throughout the study (61%). The percentage of capelin (*Mallotus villosus*) deliveries was the highest recorded (39%). This is the final year of field research that started in coordination with Alaska Maritime National Wildlife Refuge, U. S. Geological Survey Alaska Science Center, and Region 7 U. S. Fish and Wildlife Service Office of Ecological Services. The initial 5-year plan was to characterize nesting habitat, monitor activities at the nest (incubation shifts, meal delivery to chicks, prey delivered to chicks, etc.), measure chick growth rate, measure reproductive success, and collect samples for genetic analyses. Ongoing analysis at SIU will investigate the influence of diet on nest success, and will assess the hypothesis that the KIMU population has declined in part due to lower chick growth rates resulting from reduced availability of high-energy forage fish. Support was provided by the U.S. Fish and Wildlife Service (Kodiak NWR and Office of Ecological Services) and the National Fish and Wildlife Foundation.

The unprecedented seabird die off (primarily murre; *Uria spp.*) that began in 2015 continued through winter and spring of 2016, with mortality appearing to be much reduced by summer of 2016. Federal, state, and local agencies as well as the Coastal Observation and Seabird Survey Team (COASST) collaborated to collect information, synthesize records, and send carcasses for testing to the U.S. Geological Survey National Wildlife Health Center. The seabird mortality monitoring database begun in 2015 was expanded to catalog reports of dead birds from across the state of Alaska. The collected information will be used to assess the range and magnitude of seabird mortality event in 2015-2016.

Dan Cushing (Pole Star Ecological Research, Seattle WA), working with **Kathy Kuletz**, conducted seabird surveys as part of the 'Seward Line' long-term monitoring in the northern

Gulf of Alaska (GOA). The project, funded by the North Pacific Research Board and led by University of Alaska, Fairbanks (**Russ Hopcroft**), continues the 19 years of oceanographic and plankton sampling, which occur in May and September and sample across the shelf from Resurrection Bay to the GOA basin, and into western Prince William Sound. Dan is conducting analyses to examine cross-shelf shifts in seabird distribution relative to warm and cold regimes, habitat, oceanographic conditions, and zooplankton abundance.

Martin Renner (Tern Again Consulting, Homer AK), working with **Kathy Kuletz**, conducted seabird surveys in Kachemak Bay and Lower Cook Inlet as part of an oceanographic monitoring program led by NOAA and the Kachemak Bay National Estuarine Research Reserve. Surveys occurred four times throughout the year. Martin is synthesizing the data from this and past years for a December 2016 final report to the Bureau of Ocean Energy Management (BOEM). The report will also incorporate results from a July 2016 survey of marine birds in Kachemak Bay, which repeated transects surveyed in 2005-2007 and 2011. The 2016 Kachemak surveys were conducted by **Kathy Kuletz**, **David Loomis**, **Martin Reedy**, and **Martin Renner**.

PRINCE WILLIAM SOUND

In January 2016, **David Irons** and his family made a trip to Whittier, Alaska, where they encountered almost 8,000 dead Common Murres (*Uria aalge*) on a one mile stretch of beach at the head of Passage Canal. Subsequently, the USFWS, USGS, and Prince William Sound Science Center counted roughly 22,000 carcasses on beaches in western Prince William Sound (PWS). Estimate mortality in PWS was approximately 25,000-60,000 murre. Given that surveys were conducted on a small fraction of beaches in PWS, total mortality was likely much higher.

In July 2016, USFWS biologists conducted surveys of marine bird and mammal abundance in Prince William

Sound. The project is led by **Robb Kaler** and **Kathy Kuletz** (USFWS) funded by Gulf Watch Alaska. The July survey is the 16th survey year spanning 27 years since the 1989 Exxon Valdez Oil Spill.

ALASKA PENINSULA

Leslie Slater coordinated long-term seabird demography monitoring for Alaska Maritime National Wildlife Refuge at Chowiet Island, Semidis group, off the coast of the Alaska Peninsula. The summer-long field crew, **Emily Pollom** and **John Gorey**, worked with several species including Northern Fulmar (*Fulmarus glacialis*), Black-legged Kittiwake (*Rissa tridactyla*), Glaucous-winged Gull (*Larus glaucescens*), Common and Thick-billed Murres (*Uria aalge* and *U. lomvia*), Parakeet and Rhinoceros Auklets (*Aethia psittacula* and *Cerorhinca monocerata*), and Horned and Tufted Puffins (*Fratercula corniculata* and *F. cirrhata*).

In March 2016, **Heather Coletti** (National Park Service), **Robb Kaler** (USFWS), and **Tony DeGange** (USGS, retired), conducted beached bird surveys along the coast of Katmai National Park. Robb and Tony joined a marine bird and mammal survey team led by Heather and walked 19 segments of beaches and two island (from Sukoi Bay south to Geographic Harbor and Amalik Bay; ~110 km apart). Over 2000 seabird carcasses (1,988 Murres [*Uria spp.*]; 16 Crested Auklets [*Aethia cristatella*], 23 unidentified small alcids (Family Alcidae), 2 Least Auklets [*A. pusilla*]) were counted on combined total of ~10.5 miles survey. Nearly all birds were >1.5 months old and heavily scavenged by eagles, foxes, wolves, etc., and were found mixed among debris in the upper tidal wrack line, or carried further inland from beaches.

SOUTHEAST ALASKA

The 2016 seabird monitoring crew at St. Lazaria Island consisted of **Nicole Koeltzow**, **Alyssa Eby**, **Danielle Ramsden**, and **Jerry Deppa**, with assistance from **Leslie Slater**

REGIONAL REPORTS

(AMNWR). Data were collected at St. Lazaria for the following:

Population trend - Storm-petrels (Fork-tailed and Leach's, *Oceanodroma furcata*, *O. leucorhoa*, respectively), Pelagic Cormorant (*Phalacrocorax pelagicus*), Glaucous-winged Gull (*Larus glaucescens*), Pigeon Guillemot (*Cephus columba*), Murres (Common and Thick-billed, *Uria aalge*, *U. lomvia*, respectively), Rhinoceros Auklet, Tufted Puffin (*Fratercula cirrhata*).

Annual productivity - Storm-petrels (Fork-tailed and Leach's), Pelagic Cormorant, Glaucous-winged Gull, Murres (Common and Thick-billed), Rhinoceros Auklet, Tufted Puffin.

Chick growth - Storm-petrels (Fork-tailed and Leach's), Rhinoceros Auklet.

Diet sampling - Storm-petrels (Fork-tailed and Leach's), Glaucous-winged Gull, Rhinoceros Auklet.

A Forrester Island crew consisting of **Tony DeGange**, **Jay Nelson**, **Barb Blackie**, **Rebecca Himschoot**, **Roberta Swift** (USFWS - Migratory Bird Management Region 1), and **Leslie Slater** (Alaska Maritime National Wildlife Refuge) collected data on Rhinoceros Auklets (*Cerorhinca monocerata*).

WASHINGTON & OREGON

Compiled by Peter Hodum

WASHINGTON

Sue Thomas and **Lorenz Sollmann** (Washington Maritime National Wildlife Refuge Complex [WMNWRC]) conducted surveys to determine abundance and distribution of Pigeon Guillemots (*Cephus columba*) on Protection Island National Wildlife Refuge (NWR) and select islands within the San Juan Island NWR in May. Other breeding species were noted as well, particularly Black Oystercatchers (*Haematopus bachmani*). This survey effort followed methodology established by Evenson et al. 2004 (Proceedings of the 2003 Georgia Basin/Puget Sound Research Conference) which was used to refine population estimates for Pigeon Guillemots in the Salish Sea.

This effort was intended to reassess abundance of guillemots associated with refuge islands and gauge the need for an additional comprehensive survey throughout the Salish Sea. More active Black Oystercatcher nests were observed this year on Refuge islands than ever recorded.

Sue Thomas and **Lorenz Sollmann** (WMNWRC) conducted two aerial surface nesting seabird surveys of 33 islands within Flattery Rocks (FRNWR), Quillayute Needles (QNNWR) and Copalis (CNWR) NWRs in July. Species surveyed included Common Murre (*Uria aalge*); Double-crested, Brandt's and Pelagic Cormorants (*Phalacrocorax auritus*, *P. pelagicus*, and *P. penicillatus*); Glaucous-winged/Western Gull hybrids (*Larus glaucescens/occidentalis*); and incidental observations of Tufted Puffins (*Fratercula cirrhata*). Common Murres were observed on White Rock and West Bodelteh Island, FRNWR; Jagged, Carroll, Huntington, and Cakesosta islands; Cake Rock and Table rocks; and Carroll Pillar, QNNWR; and Erin, Erin's Bride and Grenville Pillar, CNWR. Murres were once again observed on Grenville Pillar this year; they have not been reported on this site since 2001. Estimates for murres on White Rock were higher than ever recorded, while estimates for the other, main colonies in Washington were lower than normal.

Sue Thomas (WMNWRC), **William Ritchie** (Willapa NWR) and **Deanna Lynch** (USFWS Washington Fish and Wildlife Office) recently completed a pilot project testing burrow count methodology for Tufted Puffins in July on Quillayute Needles NWR in July. The objective of this project was to assess the potential to develop a minimal breeding population estimate for puffins by boat. In addition, they conducted a rapid assessment (boat-based survey) of puffins on Cake Rock; Carroll, Jagged, Petrel, Huntington, Cakesosta and Rounded Islands within Quillayute Needles NWR.

Sue Thomas and **Lorenz Sollmann** (WMNWRC) participated in the Pacific

Flyway Double-crested Cormorant survey in July. Higher than average numbers of active nests of both Double-crested and Pelagic Cormorants were reported on three of six refuge islands traditionally monitored for these species. Once again, a limited number of Brandt's Cormorants were observed nesting in the Salish Sea.

Sue Thomas (WMNWRC) conducted regular beached bird surveys on Dungeness NWR from June–September and submitted several Rhinoceros Auklet (*Cerorhinca monocerata*) carcasses to the USGS National Wildlife Health Center for necropsy.

Jennifer Lang (University of Washington [UW]) has successfully defended her Master's degree baselining beached seabird data and identifying anomalous beaching events for outer Washington and Oregon coasts using data collected by participants of the citizen science project, Coastal Observation and Seabird Survey Team (COASST), under the direction of **Julia Parrish** (UW). Her research provides a statistical method to create baselines and found that the majority of anomalous die-offs, including mass mortality events (MMEs or seabird wrecks), can be characterized by common species in the area beaching at times of the year associated with post-breeding mortality, winter kill, or an environmental or anthropogenic stressor. Jennifer is currently Acting Editor of Pacific Seabirds and is maintaining her position as PSG Membership Coordinator.

U.S. Fish and Wildlife Service (USFWS) wildlife biologists, **Shawn W. Stephensen** and **Mike Szumski** conducted a coastal aerial survey of California brown pelicans (*Pelecanus occidentalis californicus*) on 07-08 September 2016. The 2016 survey area was from Smith River, Del Norte County, northern California to Willoughby Rock, Grays Harbor County, central Washington. Surveys included all bays, rocks, reefs, islands, coastal beaches, and waters up to 0.5 mile offshore. Surveys were conducted in a fixed-wing Cessna 182; flight altitude ranged from

REGIONAL REPORTS

60 to 245 meters above ground level and aircraft speed ranged from 145 to 210 km/h. A GPS recorded the flight track of the aircraft throughout the entire survey. A total of 6,331 individual pelicans were counted in 2016, in comparison to counts during 2001 to 2015 that resulted in a range of 3,416 to 18,769. Technicians under the direction of **Dan Roby** (Oregon State University [OSU]) counted 3,848 pelicans on East Sand Island from a boat 50-75 meters offshore, whereas, USFWS counted 4,800 from the air. East Sand Island continues to be the site of the largest congregation of pelicans during the summer on the Oregon coast.

Martin Raphael, Teresa Lorenz, and Thomas Bloxton (US Forest Service, Pacific Northwest Research Station) are completing analyses of Marbled Murrelet (*Brachyramphus marmoratus*) marine habitat use, ranging behavior, and breeding propensity in the Salish Sea, from telemetry data collected 2004-2008. They are also examining murrelet productivity and density from surveys completed in the San Juan Islands, 1995 to 2012.

Scott Pearson (Washington Department of Fish and Wildlife [WDFW]), **Tom Good** (NOAA-Northwest Fisheries Science Center) and **Peter Hodum** (University of Puget Sound and Oikonus) continued their long-term study of reproductive success patterns of Rhinoceros Auklets (*Cerorhinca monocerata*) on Protection (tenth year) and Destruction (eighth year) islands, Washington. Dietary studies were conducted during the late chick-rearing stage on both islands. Preliminary analyses of burrow occupancy and fledging success suggest that occupancy was comparable to long-term averages on both islands. However, while fledging success on Destruction was amongst the highest rates recorded in our study, the Protection breeding population had by far the poorest fledging success over the past decade.

Undergraduate research students in **Peter Hodum's** lab at the University of Puget Sound conducted seabird-related research on two focal projects during the

past year: (1) **Robyn Thomas** completed an historical ecology study of trophic levels of Tufted Puffins (*Fratercula cirrhata*) using stable isotope analyses, with preliminary results suggesting that there has been no change in trophic level in the Washington/Oregon region over the past 90 years and (2) **Amanda Johnson** conducted a pilot study using gas chromatography-mass spectrometry to assess changes in polybrominated diphenyl ether (PBDE) concentrations in the feathers of Common Murres (*Uria aalge*) over time.

OREGON

Shawn W. Stephensen and **Scott Neumann** of the Oregon Coast National Wildlife Refuge Complex conducted an aerial seabird colony survey on 17 and 18 June 2016 that included the entire Oregon coast. The aircraft used was a Bell Jet Ranger III helicopter. Total flight time was approximately 10 hours. All Common Murre (*Uria aalge*), Brandt's Cormorant (*Phalacrocorax penicillatus*), Pelagic Cormorant (*P. pelagicus*), and Double-crested Cormorant (*P. auritus*) colonies were photographed using digital cameras and birds were counted on the digital images utilizing Geographic Information System computer software. Thousands of digital images were organized and archived for future reference. Colony attendance by murres was slightly depressed in comparison to previous years; however, murres returned to nest at several historical colony sites (particularly Three Arch Rocks area) that had not been attended during the past decade.

Tim Halloran (USFWS volunteer) and **Shawn W. Stephensen** of the Oregon Coast National Wildlife Refuge Complex conducted a population status assessment of Tufted Puffin (*Fratercula cirrhata*) at Haystack Rock, Cannon Beach which is within the Oregon Islands National Wildlife Refuge. The project also included a pilot study to evaluate the feasibility of monitoring additional reproductive parameters at the island, such as breeding phenology

and data collection success from shore-based vantage points. The number of Tufted Puffins present at Haystack Rock was documented during 2010 - 2016 by conducting instantaneous counts of birds on the land, water, and in the air at 15 minute intervals. The daily mean counts were 42, 33, 13, 35, 22, and 21 birds during 2010, 2011, 2012, 2013, 2014, and 2015 respectively. Burrow occupancy was determined and the annual breeding population estimate was calculated based on the number of viable occupied burrows. We estimated the Tufted Puffin breeding population (individual birds) at Haystack Rock to be 127 in 2010, 97 in 2011, 74 in 2012, 143 in 2013, 125 in 2014, and 121 in 2015. We have not completed 2016 data analysis; however, initial data review indicated 40 to 50 puffins appeared to have nested. We also documented many negative interactions with gulls and disturbances by eagles, as well as interesting social behaviors between puffins.

Joe Liebezeit and **Amelia O'Connor** (Audubon Society) and **Allyson Melendez** (USFWS Intern) conducted a citizen science seabird monitoring project within the Cape Perpetua and Cape Falcon Marine Reserve. With the help of 19 volunteers, breeding productivity for Brandt's Cormorant (*Phalacrocorax penicillatus*), Pelagic Cormorant (*P. pelagicus*), and Double-crested Cormorant (*P. auritus*) and abundance of Rhinoceros Auklets (*Cerorhinca monocerata*) and Pigeon Guillemots (*Cepphus columba*) were determined. Monitoring sites were in high-use visitor/tourist areas, including Heceta Head and Sea Lion Caves, where information was provided to the public about Oregon's marine reserves, seabird ecology, and conservation. At Cape Perpetua, five plots (66 nests: Brandt's Cormorant=39, Pelagic Cormorant=14, Double-crested Cormorant=13) on six separate cormorant colonies along with Rhinoceros Auklet and Pigeon Guillemot counts in the Sea Lion Caves were monitored twice a week during the breeding period. Sea Lion

REGIONAL REPORTS

Cave counts yielded a low estimate of breeding pairs using the cave, 135 individual Pigeon Guillemot adults and 26 individual Rhinoceros Auklet adults were the maximum counts. Chicks were rarely sighted; however, seven Pigeon Guillemot chicks were observed. At Cape Falcon, 45 cormorant nests (16 Double-crested Cormorants, 16 Pelagic Cormorants, and 13 Brandt's Cormorants) were monitored. Of the 45 nests only two completely failed, both earlier in the summer (1 Brandt's Cormorant and 1 Pelagic Cormorant). In the Brandt's Cormorant nest plot, 19 eggs and 30 chicks were observed and 16 chicks fledged. The Pelagic Cormorant plot, 36 eggs and 43 chicks were observed and 29 chicks fledged. On the southern split of the Devil's Cauldron trail, 41 Double-crested Cormorant chicks were observed and 37 chicks fledged.

An Intra-Agency Agreement between the Bureau of Ocean Energy Management (BOEM), Department of the Interior (DOI), and the U.S. Fish and Wildlife Service Pacific Region (USFWS), was completed. The purpose of the agreement was to secure proper data management and obtain data synthesis of long-term aerial seabird colony data (photographs) collected at breeding sites surveyed by USFWS Oregon Coast National Wildlife Refuge Complex (OCNWRC) and Washington Maritime National Wildlife Refuge Complex (WMNWRC) along the Oregon and Washington coasts. The specific objectives are: (1) Secure seabird colony count legacy data collected from 1972 to the present by converting film slides to digital images, cataloging, archiving, and counting birds on aerial images of seabird colonies to estimate colony site populations by species. Slide processing will be conducted by USFWS **Rikeem Sholes** (Biological Science Technician) under supervision of **Shawn W. Stephensen** and **Erin Stockenberg** (Wildlife Biologists). (2) Develop and populate a database that will be make it available to the scientific community, the general public, and other government

agencies by regular uploading to online portals. And (3) Provide data products, analyses, and reports that summarize and communicate analyses to BOEM and the general public to support incorporation of marine bird abundance and distribution into planning processes and risk assessment of renewable energy siting and decision support.

Elizabeth Phillips (PhD candidate, School of Aquatic and Fishery Sciences, University of Washington) is examining the influence of river plumes on seabird-prey interactions, with a focus on Sooty Shearwater (*Puffinus griseus*) and Common Murre (*Uria aalge*) near the Columbia River in the northern California Current. She is working in collaboration with **Jen Zamon** (NOAA-Fisheries) and **Josh Adams** (US Geological Survey). She has found that both seabird species concentrate in the river plume when volume and surface area decrease, suggesting that seabirds aggregate in the plume to increase encounter rates with anchovy, herring, and juvenile salmonids. She is currently using telemetry data to compare results from vessel-based surveys, and to evaluate fine-scale seabird movement in relation to varying plume conditions.

Rob Suryan (Associate Professor – Senior Research), **Stephanie Lored** (MS Student), **Jane Dolliver** (MS Student), **Jessica Porquez** (MS Student & Research Assistant), and **Amanda Gladics** (Faculty Research Assistant; all at Oregon State University, OSU), and **Denisse Sylva** (Intern, Environment for the Americas) conducted studies of Common Murres (*Uria aalge*) and Pelagic (*Phalacrocorax pelagicus*) and Brandt's Cormorants (*P. penicillatus*) at the Yaquina Head colony in Newport, OR. This is the tenth consecutive year of collaborative studies at this site among Oregon State University, the Bureau of Land Management, and the US Fish and Wildlife Service (USFWS). For the second time in the 15-year time series – two years in a row - murres experienced reproductive failure. Reproductive success for murres during the past 6 years (2011-2016; 0-27%) has been

greatly reduced compared to prior years (2007-2010; 54-77%). Pelagic Cormorant reproductive success improved, but Brandt's Cormorant success declined from last year.

Rob Suryan, **Rachael Orben** (Postdoctoral Scholar, OSU), **Stephanie Lored**, **Don Lyons** (Assistant Professor – Senior Research, OSU), **Amanda Gladics** and **Josh Adams** (USGS) continued a project with funding from the Bureau of Ocean Energy Management to use individual tracking to characterize resident and migrant seabird distribution and three-dimensional movement patterns during winter, night, and inclement weather for species off Oregon. **Stephanie Lored**'s MS thesis from this project is titled "Temporal variability in three-dimensional habitat use of Common Murres off Oregon". The project also involves some integration of ship-based surveys. During spring 2016, the team tracked Common Murres, Western Gulls (*Larus occidentalis*), Black-footed and Laysan Albatrosses (*Phoebastria nigripes* and *P. immutabilis*) with **Scott Shaffer** (San Jose State University), and Pacific Loons (*Gavia pacifica*) with **Joel Schmutz** (USGS). **Shawn Stephensen**, **Bill Bridgeland**, and crew from the Oregon Coast National Wildlife Refuge Complex (OCNWRC, USFWS) collaborated in deploying instruments on Common Murres and gulls along the Oregon coast. Western Gull studies included collecting bacterial and viral samples for collaboration with **Scott Shaffer**, **Hillary Young** (U.C. Santa Barbara), and **Corey Clatterbuck** (San Diego State University / U.C. Davis).

Rob Suryan, **Jess Porquez**, **Stephanie Lored**, and **Amanda Gladics** continued vessel based at-sea surveys of seabird distribution off Oregon. The research areas include the Newport Hydrographic Line, an oceanographic cross shelf sampling line extending west from Newport, OR, and two Pacific Marine Energy Center (PMEC) potential wave energy sites. **Jessica Porquez** completed her MS thesis on this project titled

REGIONAL REPORTS

“Spatiotemporal drivers of seabird distribution at the Pacific Marine Energy Center off Newport, Oregon.” In collaboration with scientists from the NOAA Northwest Fisheries Science Center, **Amanda Gladics** and **Jess Porquez** conducted seabird surveys from Brookings, Oregon to Willapa Bay, WA during the West Coast rockfish pre-recruitment survey on the R/V Bell M. Shimada.

Rob Suryan and collaborators at Oregon State University and University of Washington completed their final report on designing and testing an integrated multi-sensor array to continuously monitor bird and bat impacts with wind turbines. Oregon State University filed a patent application for their next generation blade mounted system and are now searching for additional research funding and commercialization partners.

Rob Suryan, Amanda Gladics, Dan Roby (USGS, OSU), **Robert Swift** (Migratory Birds and Habitat Program, USFWS), **Shawn Stephensen, Bill Bridgeland**, and **Jess Porquez** continued to develop and test non-invasive population monitoring techniques for burrow-nesting seabirds. The approach combines simultaneous data collection using remote cameras and acoustic recorders in long deployments up to an entire breeding season. During 2015, the group deployed equipment at Goat Island, near Brookings, Oregon for a second season, and expanded the study to include nearby Saddle Rock. **Peter Sanzenbacher** (ABR, Inc. Environmental Research and Services) and **Robert Swift** collaborated to conduct simultaneous radar surveys of both study sites to assess a broad range of non-invasive monitoring techniques. This project is also in partnership with **Matthew McKown** (Conservation Metrics). Work began in 2016 to analyze camera and acoustic recorder data at Saddle Rock and to compare and assess the use of these multiple survey methods at both locations.

Don Lyons, Kirsten Bixler (Faculty Research Assistant, OSU), **Tim Lawes**

(Faculty Research Assistant, OSU), and **Rob Suryan** initiated a pilot effort to create a nest box colony of Pigeon Guillemots (*Cepphus columba*) underneath the ship operations dock at the Hatfield Marine Science Center for education, outreach, and research purposes. They are also exploring establishing nest box colonies of Pigeon Guillemots (*Cepphus columba*) and Rhinoceros Auklets (*Cerhorinca monocerata*) in Sea Lion Caves, Oregon.

Don Lyons, Rachael Orben, Rob Suryan, and **Renee Albertson** (Instructor and Postdoctoral Scholar, OSU) expanded the marine bird course offerings at OSU this past year. In addition to continuing spring introductory and summer immersive courses on marine and estuarine birds, OSU added a behavior and physiology methods course during fall term. All courses are taught at OSU's Hatfield Marine Science Center in Newport, Oregon, and include several types of experiential learning, such as seabird capture, banding, and tagging, research vessel-based transect sampling, colony visits, beached bird surveys, focal individual behavioral observations, and tracking data analysis.

Don Lyons, Adam Peck-Richardson (MS Student, OSU), **Dan Cushing** (Faculty Research Assistant, OSU), **Jim Lerczak** (Associate Professor, OSU), and **Dan Roby** continued a study investigating the use of diving waterbirds to collect physical oceanographic data. Manuscripts are in preparation summarizing field work conducted at the mouth of the Columbia River on Brandt's and Double-crested Cormorants (*Phalacrocorax penicillatus* and *P. auritus*) using archival tags. Upcoming work will test prototype sensor tags that include a remote data download capability. Funding was provided by the Office of Naval Research.

Amanda Gladics fledged from the Seabird Oceanography Lab in July 2016 to accept a position as an Assistant Professor of Practice focused on coastal fisheries extension with Oregon Sea

Grant in Astoria, Oregon. She hopes to remain engaged with seabird research and conservation while expanding the scope of her work to other fisheries management issues.

A new cooperative project between the College of Forestry and the Department of Fisheries and Wildlife at OSU began in spring 2016 to study the predictors of space use and reproductive success of the Marbled Murrelet (*Brachyramphus marmoratus*). Principal investigators on the project are **Jim Rivers, Matt Betts** (OSU College of Forestry), **Kim Nelson** (OSU Department of Fisheries and Wildlife), and **Dan Roby** (USGS-Oregon Cooperative Fish and Wildlife Research Unit). Current goals of the project include: (1) using existing landscape, murrelet, and nest predator data to determine the spatial scale(s) that predict murrelet occurrence and nesting and assess how the distribution of known murrelet nest predators overlap with key murrelet nesting areas and occupied stands; (2) capturing and marking murrelets to quantify their space use and breeding activities to understand terrestrial habitat needs for nesting; and (3) evaluating the relative role of habitat features and social attraction in recruiting breeding murrelets to currently unoccupied stands.

In spring and summer 2016, Joe Northrup led efforts to determine the efficacy of using satellite tags to track murrelets to inland sites, and evaluated the performance of custom-designed autonomous recording units that allow for simultaneous playback and recording of vocalizations. In 2017, efforts will be expanded to attempt to capture and mark (VHF tags) a robust sample of murrelets to locate active nests, and continue experimental testing of playback/recording systems. Research assistants and field crew in 2016 included **Lindsay Adrean, Mandy Wilson, Cathleen Rose, Stephen Rossiter, Jen Rothe, Gwyn Case, Nick Trejo, Elena West, Sara Matasick, Alessandro Molina**, and **Shannon Carvey**.

A cooperative team involving **Dan Roby** (Unit Leader, USGS-

REGIONAL REPORTS

ORCFWRU), **Jessica Adkins**, **Olivia Bailey**, **Kirsten Bixler**, **Carly Congdon**, **Tim Lawes**, **Pete Loschl**, **Don Lyons**, **Adam Peck-Richardson**, **Alexa Piggott**, **Ethan Schniedermeyer**, and **Yasuko Suzuki** (OSU), **Ken Collis**, **Brad Cramer**, **Allen Evans**, **Mike Hawbecker**, **Quinn Payton**, and **Aaron Turecek** (Real Time Research, Inc.), and numerous seasonal technicians and volunteers monitored Caspian Terns (*Hydroprogne caspia*) at colonies in eastern Washington and at East Sand Island in the Columbia River estuary. Investigations observed the effects of reducing tern nesting habitat on avian predation rates of juvenile salmonids (*Oncorhynchus spp.*) in the Columbia River basin. The colony at East Sand Island remained robust, with over 5,000 Caspian Tern pairs nesting and many producing young. No nesting occurred at Crescent Island, but terns continued to show interest in Goose Island and the surrounding Potholes Reservoir. In 2016 the breeding population in the Columbia Plateau region (675 breeding pairs) was down 23% from pre-management levels (an average of 873 breeding pairs during 2005-2013). Funding was provided by the Bonneville Power Administration, U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, and Grant County (Washington) Public Utility District.

Dan Roby, **Don Lyons**, **Kirsten Bixler**, and **James Lawonn** (Oregon Department of Fish and Wildlife) concluded a study of the diet and prey consumption of double-crested cormorants in three estuaries along the Oregon coast. The study investigated potential consumption of juvenile salmonids in Tillamook Bay, the Umpqua River Estuary, and the Rogue River Estuary.

Yasuko Suzuki, **Don Lyons**, and **Dan Roby** began collaborating with **Nathan Schumaker** (U.S. Environmental Protection Agency and Courtesy Faculty, OSU) and **Diana Dishman** (Biologist, Integral Consulting, Inc.) to develop a population model for the Pacific Flyway population of Caspian Terns. During the

first year of collaboration, we have been developing a preliminary population model that consists of a core study area in the Pacific Northwest.

NORTHERN CALIFORNIA

Compiled by Anna Weinstein

Nina Karnovsky (Pomona College) continued her collaboration with Madrone Audubon Society in part of their citizen science project monitoring the seabirds that breed on the offshore rocks of The Sea Ranch, Sonoma County, California. This past summer **Ellie Harris** (Pomona College undergraduate student) measured the reproductive success of Western Gulls (*Larus occidentalis*), Brandt's Cormorants (*Phalacrocorax penicillatus*), Pelagic Cormorants (*Phalacrocorax pelagicus*), and kept track of the numbers of Common Murres (*Uria aalge*) at The Sea Ranch.

Susan Euing (USFWS) continued long-term monitoring of the population size, reproductive success and fledgling production of California Least Terns (*Sternula antillarum browni*) at Veterans' Affairs (VA) Alameda Point (the formal Naval Air Station, Alameda) with assistance from **Meredith Elliott** (Point Blue Conservation Science [PBCS]) and interns, **Jacqueline Tom** (USFWS) and **Alessandra Moyer** (PBCS). This property was transferred from the U.S. Navy to the Department of Veterans' Affairs in 2014. California Least Terns were observed at the breeding colony from 10 April through 24 August 2016. Over 89.5% of the 403 nests hatched at least one chick. As numbers are still preliminary, we estimate between 550 and 600 fledglings were produced and successfully departed VA Alameda Point. Predators included Peregrine Falcons (*Falco peregrinus*), American Kestrels (*Falco sparverius*), and Common Ravens (*Corvus corax*). In mid-June of 2014, immediately after mitigation work concluded on the western section of

the property (a superfund site), the wildlife biologist observed Caspian Terns (*Hydroprogne caspia*) nesting on a newly created island. At the height of the breeding season in early August, up to 150 adults and 17 fledglings were observed. Also, of special note, on 23 July, a Black Skimmer (*Rhynchops niger*) was observed flying with Caspian Terns near their nesting island, and seven adult and one fledgling Elegant Terns (*Thalasseus elegans*) were seen roosting with the Caspian Terns on 18 August 2014. Caspian Terns continued to nest in increasing numbers on this property in 2015 and 2016. In 2015, returning Caspian Terns were first observed at VA Alameda Point on 8 March. At the height of the breeding season, 313 adults and 16 fledglings were observed. During the 2016 breeding season, numbers peaked at 459 adults and 147 fledglings.

Morgan Gilmour (Ph.D. candidate, University of California Santa Cruz) is working with **Scott Shaffer** (San Jose State University). She is writing up her dissertation that studies the foraging ecology and contaminant loads (organochlorines and mercury) of boobies (*Sula spp.*) and frigatebirds (*Fregata spp.*) in the Northwestern Hawaiian Islands, Palmyra Atoll, and western Mexico; and Great-winged Petrels (*Pterodroma macroptera*) in Western Australia. Research in Mexico is in collaboration with **J. Alfredo Castillo-Guerrero** (University of Guadalajara) and research in Australia is in collaboration with **Jennifer Lavers** (University of Tasmania).

Dan Anderson (California Institute of Environmental Studies [CIES]) is working with **Deb Jaques** on an age-ratio analysis of Brown Pelicans (*Pelecanus occidentalis*) over a time series. CIES is also developing a five-year Brown Pelican post-delisting-monitoring plan for the Channel Islands only, and continuing breeding population monitoring in the Gulf of California with Comision Nacional de Areas Naturales Protegidas (CONANP). **Enriqueta Velarde** and **Miguel Santamaria** are analyzing their

REGIONAL REPORTS

pelagic seabird survey data in the Gulf of California to help define sensitive at-sea conservation zones for seabird protection. This includes some current field work in 2017.

Deborah Jaques was Principle Investigator on Brown Pelican post-release survival research following the Refugio Oil Spill Incident. The purpose was to evaluate plumage condition, molt status, breeding readiness as indicated by gular color, general behavior, and reintegration into the wild of post-spill pelicans. Pelicans carrying electronic tracking devices and post-spill birds marked with color band-only were compared to other rehabilitated and unmarked pelicans in the field. Collaborators included **Kyra Mills-Parker**, **Christine Fiorello**, and **Mike Ziccardi**. As part of scoping for projects to mitigate the damage of the Refugia Beach Oil Spill, Deborah also worked to develop concepts for projects expected to reduce Brown Pelican and other seabird injury from recreational fishing and boating activities, including fishing hook and line entanglement and communal roost site disturbance. This included evaluating infrastructure at California fishing piers and ports, and conducting surveys of pelicans at key non-breeding roosts in southern and central California as part of project planning. **Steve Hampton**, **Laird Henkel**, **Jen Boyce**, and **Jenny Marek** are the Spill Trustees for the Natural Resource Damage Assessment process. Deborah continued experimental use of remote photographic methods to monitor Brown Pelicans at communal roosts and the breeding colony on Santa Barbara Island with cooperation and collaboration from **Dave Mazurkewicz**, **Jim Howard**, **Dan Anderson**, **Leora Feeney** (Friends of Alameda Refuge) and **Bart Selby** (citizen scientist).

Mark J. Rauzon (Laney College) published the book "Isles of Amnesia; the History, Geography and Restoration of America's Forgotten Pacific Islands" (University of Hawai'i Press, 2016). He along with **Meredith Elliott** (Point

Blue) concluded a two-decade long of the Double-crested Cormorant (*Phalacrocorax auritus*) on the old San Francisco Bay Bridge because the bridge has been dismantled and a new bridge opened. It remains to be seen if cormorants will adopt the new bridge artificial nesting structures he designed.

B.K. Wells (National Marine Fisheries Service [NMFS] Santa Cruz), **J.A. Santora** (University of California, Santa Cruz), **M.J. Henderson** (USGS, Arcata), **P. Warzybok**, **J. Jahncke**, **R.W. Bradley** (Point Blue Conservation Science [PBCS]), **D.D. Huff** (NMFS Northwest Fisheries Science Center), **I.D. Schroeder**, **J.C. Field** (NMFS Santa Cruz), **P. Nelson**, and **D.G. Ainley** (H.T. Harvey & Associates), conducted an analysis involving 30 years of data from the greater Gulf of the Farallones to examine relationships among 1) survival of juvenile chinook salmon *Oncorhynchus tshawytscha*; 2) freshwater discharge from California central valley rivers; 3) coastal California upwelling intensity; 4-6) the diet, foraging distribution, and population size of the very abundant and increasing Common Murre (*Uria aalge*); and 7) availability of main murre prey (juvenile rockfish *Sebastes spp.*; northern anchovy *Engraulis mordax*). The title of their prospective paper is "Caught in the middle: Top-down impacts on salmon are dependent on bottom up mechanisms," and its intended message is that, in the best interests of ecosystem-based fishery management, if you wish to facilitate the existence of abundant salmon in the area, then don't deplete or seriously diminish the rockfish --- in years of diminished rockfish, murre feed inshore on anchovies and salmon to a degree that salmon survival is compromised. Other analyses, funded by NOAA, are underway on relationships between predators and their preyscape in central California waters.

Scott Shaffer (San Jose State University) is continuing to study the foraging ecology of Laysan (*Phoebastria immutabilis*) and Black-footed

Albatrosses (*P. nigripes*) from Midway Atoll (in collaboration with **Meg Duhr-Schultz** [USFWS], **Rachael Orben** and **Rob Suryan** [Oregon State University]). Scott is also collaborating with **Rachael Orben**, **Rosana Paredes** (Oregon State University), and **Sasha Kitaysky** (University of Alaska, Fairbanks) on a project that is focusing on the breeding distribution and ecology of Red-legged Kittiwakes (*Rissa brevirostris*) in the Pribilof Islands. Scott's master's student **Abram Fleishman** (San Jose State University) is working in the field with Rachael and plans to examine the effects of mercury level on breeding success in the kittiwakes.

Scott Shaffer and his students **Brad Wilkinson**, **Lindsey Broadus** have been working with **Russell Bradley**, **Pete Warzybok**, and **Jamie Jahncke** of Point Blue Conservation Science at the Farallon Islands to examine the foraging and breeding ecology of Western Gulls (*Larus occidentalis*) and Rhinoceros Auklets (*Cerorhinca monocerata*). This research is part of a larger project with **Sue Cockerham** and **Cleber Ouvnery** (San Jose State University); **Rob Suryan**, **Leigh Torres**, **Amanda Gladics**, and **Rachael Orben** (Oregon State University); **Hillary Young** (University of California Santa Barbara); and **Josh Adams** and **Emma Kelsey** (USGS); and **Corey Clatterbuck** (San Diego State University) to compare the foraging ecology of Western Gulls along California and Oregon. **Scott Shaffer** and his student **Greg Taylor** are collaborating with **Josh Ackerman** (USGS) to examine the effects of mercury contamination on the egg attendance behavior of Forster's Terns (*Sterna forsteri*) in San Francisco Bay.

Nina Karnovsky (Pomona College) and undergraduate students **Gail Gallaher** and **Frances Hang** are analyzing data from TDR bearing Cassin's Auklets (*Ptychoramphus aleuticus*) breeding on the Southeast Farallon Island, in collaboration with **Russ Bradley**, **Pete Warzybok**, **Jaime Jahncke** and **Meredith Elliott** (PBCS).

REGIONAL REPORTS

SOUTHERN CALIFORNIA

Compiled by Yuri Albores-Barajas

Corey Clatterbuck (PhD student, San Diego State University and University of California-Davis), **Rebecca Lewison** (San Diego State University), **Katie Zeeman** (USFWS Carlsbad), **Ken Schiff** (Southern California Coastal Water Research Project [SCCWRP]), and **Nathan Dodder** (SCCWRP) completed a report of organic and metal contaminants from abandoned eggs of four seabird species nesting in the Southern California Bight: California Least Tern (*Sternula antillarum browni*), Caspian Tern (*Hydroprogne caspia*), Double-crested Cormorant (*Phalacrocorax auritus*), and Western Gull (*Larus occidentalis*). The study was conducted as a part of a regional bioaccumulation monitoring program by SCCWRP. Contaminants from every targeted toxicant class (n=7) were present in each bird egg (n=102). However, contaminant levels were steady or lower than results from site-specific historic monitoring. The study also examines contaminant patterns by species, by colony, and by latitude. The findings of the study are available in technical report #944 at www.sccwrp.org. The findings will be included in a comprehensive report from SCCWRP that details contaminant concentrations in water, sediment, invertebrates, and fish samples from the Southern California Bight.

In 2016, **Annette Henry** began assisting with the NOAA Fisheries' National Seabird Program. As part of her duties, she participates with the Council for Conservation of Migratory Birds (USFWS). She is still very interested in Eared Grebes (*Podiceps nigricollis*), especially with migration energetics and use of hypersaline lakes.

HAWAII

Compiled by Yuri Albores-Barajas

Lindsay Young and Eric

VanderWerf (Pacific Rim Conservation [PRC]) just completed a third predator-proof fence in collaboration with the USFWS, U.S. Navy, National Fish and Wildlife Foundation, David and Lucille Packard Foundation, and the American Bird Conservancy at James Campbell National Wildlife Refuge on Oahu and successfully removed all predators from within the fenced area. Laysan Albatross (*Phoebastria immutabilis*) chicks have been translocated into the fenced area for the last two years, and will continue. The Laysan Albatross translocation was accomplished using eggs laid on a military runway on Kauai that were brought to Oahu and incubated at PRC offices for two months. Eggs were ultimately hatched out under foster parents at Kaena Point, Oahu. When chicks were one month old, they were moved to James Campbell National Wildlife Refuge where they were raised by hand until they fledged. Fledging success was 100% in year one and 95% in year two. The purpose of the project was to save viable albatross eggs from being destroyed on Kauai and simultaneously creating a new colony of albatrosses on Oahu. In 2017 Black-footed Albatrosses (*Phoebastria nigripes*) from Midway Atoll will also be brought to the site.

PRC continues to work with partners at the American Bird Conservancy, USFWS and the Kauai Endangered Seabird Recovery Project at Kilauea Point National Wildlife Refuge on Kauai. In 2015, PRC successfully removed all predators from within the predator-proof fenced area and translocated 10 Hawaiian Petrel (*Pterodroma sandwichensis*) chicks to establish a new, predator-free breeding colony of the species. In October 2016, 20 Hawaiian Petrel chicks and 10 Newell's Shearwaters (*Puffinus newelli*) chicks will be brought to the site and reared until fledging. Translocations at that site are expected to be ongoing for the next five years. In 2016, **Eric VanderWerf** conducted a repeat of the 2003 island-wide census of White Terns (*Gygis alba*) on Oahu and documented all the nests island-wide as well as completed the

breeding phenology for the species.

Starting in late 2016, PRC will also be helping the USFWS to update their seabird monitoring protocols and seabird colony catalogue for the tropical Pacific region. PRC continues the monitoring of Laysan Albatrosses and Wedge-tailed Shearwaters (*Puffinus pacificus*) at Kaena Point Natural Area Reserve on Oahu, monitoring and threat control for Red-tailed tropicbirds (*Phaethon rubricauda*) on Oahu, and monitoring nesting success of seabirds on Lehua Islet.

Midway Atoll National Wildlife Refuge (MANWR) biologist **Meg Duhr-Schultz** (MANWR, USFWS), **Matthew McKown**, **Sarah Youngren**, **Daniel Rapp**, **Abram Fleishman** (Conservation Metrics) and **Roberta Swift** (Migratory Birds and Habitat Programs, USFWS) initiated a two-year study in 2015 to test acoustic recorders as a survey method for Bonin petrels (*Pterodroma hypoleuca*) with support from USFWS Refuge Inventory and Monitoring Division. Development of acoustic recorders as a survey tool for Bonin petrels would enable Refuge staff to more efficiently survey petrels with less damage to burrows and habitat.

NON-PACIFIC UNITED STATES

Compiled by Samantha Richman

Laura Bliss is currently finishing her M.Sc. in Wildlife Ecology at Texas State University; she is scheduled to defend early October 2016. Her master's research focuses on using ArcGIS to create predictive habitat suitability maps for *Dipodomys compactus* (Gulf Coast Kangaroo Rat) in central Texas. Laura is presently working at the University of Texas at Austin as the Outreach Coordinator for a student sustainability organization and working remotely with Ocean Associates Inc. analyzing data from the coast-wide Cassin's Auklet Mass Mortality Event of 2014-2015. For more information about her research, please visit <http://laurabliss.wp.txstate.edu>.

REGIONAL REPORTS

edu/.

Samantha Richman is now working for the U.S. Geological Survey, Western Ecosystems Research Center, San Francisco Bay Field Station. Sam is currently organizing the 6th International Sea Duck Conference to be held in Tiburon, near San Francisco, 7-9 February 2016. We are hosting a special session on “Planning Restoration and Recovery of Sea Ducks Injured in Coastal Oil Spills” funded by the Department of Interior’s Natural Resources Damages Assessment. She is also continuing her work with captive Common Eiders (*Somateria mollissima*) and White-winged Scoters (*Melanitta fusca*) at the Livingston Ripley Waterfowl Conservancy in Connecticut.

Steve Kress and **Paula Shannon** (National Audubon Society’s Seabird Restoration Program; NAS-SRP) continued long-term monitoring of breeding seabird populations in the Gulf of Maine, focusing on diet studies, productivity, growth, and populations of Common, Arctic, and Roseate Terns (*Sterna hirundo*, *S. paradisaea*, *S. dougallii*), Atlantic Puffins (*Fratercula arctica*), Razorbills (*Alca torda*), and Black Guillemots (*Cepphus grylle*). They are cooperating with graduate research fellow **Keenan Yakola** of the University of Massachusetts and the Northeast Climate Science Center in an analysis of NAS-SRP’s long-term dataset on terns in relation to climate change. This analysis will include data such as productivity, chick growth, chick provisioning, and climatic parameters to develop mechanistic models to help explain the ecological relationship between terns, forage fish and climate change. Additionally, in partnership with ‘explore.org’, NAS-SRP deployed five HD cameras streaming live video of nesting puffins, terns, guillemots, and Osprey (*Pandion haliaetus*) to the internet. Audubon’s international training program continued, with fellows from the Mexico and Brazil.

Richard Veit at City University of New York along with **Lesley Thorne** of Stony Brook University and **Allison Black** of

central Connecticut University have been studying diet and foraging range of Herring Gulls (*Larus argentatus*) and Great Black-backed Gulls (*L. marinus*) at islands off Nantucket, Massachusetts. With Biodiversity Research Institute in Maine and **Brian Patteson**, Richard and Lesley have completed a study of the offshore distribution of seabirds off Delaware, Maryland and Virginia and are exploring further offshore work through BOEM off North and South Carolina.

Jeff Spendelow (USGS Patuxent Wildlife Research Center) continues to coordinate a cooperative research project on the metapopulation dynamics and ecology of the endangered NW Atlantic breeding population of Roseate Terns (*Sterna dougallii*, ROST) that began in 1987. Jeff spent many years concentrating on colony-site research in the Massachusetts-New York-Connecticut area; an article analyzing more than 20 years of data on breeding dispersal by adults will be published in the online journal ECOSPHERE in fall 2016. Since 2011, Jeff has been examining temporal and geographic variation in the use of staging sites in the “Cape [Cod] & Islands” area of southeastern MA by Hatch Year (HY) and adult ROSTs (and in particular non-breeding adults) given 3-character plastic field-readable (PFR) bands at nine colony sites spanning the entire breeding range (CT to Nova Scotia). Funding from Cape Cod National Seashore (CACO) in 2014 and 2015 supported two MSc. projects and the long-term “variation in staging site use” work that Jeff has been doing since 2006. A record 12 different color banded 1-yr-old birds and more than 220 different color banded 2-yr-old ROSTs (out of a total of about 1350 individuals of all ages with PFR bands) were identified during the 2016 field season, further demonstrating the importance of the Cape & Islands area to this endangered species.

LATIN AMERICA

Compiled by Yuri Albores-Barajas

CHILE

Cristián G. Suazo has been involved in the ongoing diagnosis and tests of mitigation measures to reduce the seabird bycatch during purse seine fishing in Chile. During these operations along the Humboldt Current System, fishing seasons are strongly overlapped with the breeding period of focal seabird species such as Pink-footed Shearwaters (*Ardenna creatopus*) and Sooty Shearwaters (*A. grisea*). To address this task, during the second half of 2015 and this 2016, Cristián shared novel collaborative technical mitigation measures on fishing gear with small-scale fishermen and representatives from the fishing gear industry towards. The reduction of net quantities and mesh size preliminarily showed relatively lower bycatch of seabirds related to bycatch hotspots. Results from these first steps are part of an ongoing project.

Cristián is currently coordinating new field experimental trials to understand the performance of emerging mitigation measures which are mainly associated with shearwater mortalities in purse seine fisheries. This initiative is supported by local authorities to include new tested measures in the updating process of the National Plan of Action – Seabirds (NPOA-Seabirds) in Chile. In fact, among new steps from this project, Cristián is currently participating with local colleagues dedicated to conservation actions at colonies and the monitoring of seabird interactions with different national fisheries. Thus, this favorable effort is towards a common goal of a more detailed knowledge of the bycatch phenomenon to reach a more realistic NPOA-Seabirds. It is a particularly important to understand where purse seine fleets are strongly interacting with Chilean endemic seabirds, such as the long-distance migratory Pink-footed Shearwater (*Puffinus creatopus*). At the international level, these findings were shared and discussed with researchers dedicated to the study of seabird bycatch, during the 2nd World Seabird Conference, Cape Town, South Africa,

REGIONAL REPORTS

and the 7th Meeting of the Seabird Bycatch Working Group (SBWG) – Agreement on the Conservation of Albatross and Petrels (ACAP). Suazo et al. (2016, SBWG Doc 20 Rev 1) showed the challenges to reach consensus on the previously understudied purse seine fishery in Chile. This is an important task when purse seine fishing is operating a large fleet along global coasts and interacting with seabirds both at small and industrial scales. These initiatives are currently possible thanks to the support from the National Fish and Wildlife Foundation (NFWF), and the Royal Society for the Protection of Birds (RSPB).

Ryan Carle, Jessie Beck, Josh Adams, Jonathan Felis (USGS) and **Peter Hodum** of Oikonos, along with local colleagues, continued the long-term breeding season monitoring of threatened Pink-footed Shearwaters (*Ardenna creatopus*) on the Juan Fernández Islands and Mocha Island and conducted breeding season tracking of the species from Mocha Island. In collaboration with Chilean colleagues in fisheries agencies and BirdLife's Albatross Task Force, tracking and fisheries data are being compared to assess bycatch risk. In addition, Oikonos is currently undertaking its sixth consecutive season of breeding season monitoring of the threatened De Filippi's Petrel (*Pterodroma defilippiana*) on both the Juan Fernández Islands and the Desventuradas Archipelago.

CANADA

Compiled by **Stephanie Avery-Gomm**

WESTERN CANADA

Laurie Wilson (Environment and Climate Change Canada [ECCC] - Canadian Wildlife Service [CWS], Delta, British Columbia [BC]) coordinated the Pacific CWS Seabird Colony Monitoring Program in 2016, revisiting permanent plots and assessing occupancy rates at the Rhinoceros Auklet colonies on S'Gang Gwaay (i.e., Anthony, Lucy, and Pine Islands). Field

crew included: on S'Gang Gwaay – **Laurie Wilson, Dan Shervill** (ECCC-CWS, Delta, BC), **Glen Keddie** (ECCC-CWS contractor, Smithers, BC), **Carita Bergman** (Parks Canada, Queen Charlotte, BC); on Lucy Island – **Dan Shervill, Glen Keddie, Sarah Hudson** (ECCC – Science & Technology [S&T], Delta, BC), **Alice Domalik** (Simon Fraser University [SFU], Burnaby, BC); on Pine Island – **Laurie Wilson, Moira Lemon** (volunteer, Ladner, BC), **Ken Wright** (ECCC-S&T, Sidney, BC), **Strahan Tucker** (Fisheries and Oceans Canada [DFO], Nanaimo, BC).

Ancient Murrelet (*Synthliboramphus antiquus*) colonies on select islands in Englefield Bay, BC (Helgesen, Lihou, Carswell and Saunders Islands) were surveyed to determine current population estimates and occupancy rates; presence of invasive raccoons (*Procyon lotor*) was noted opportunistically. Ancient Murrelets were our primary species of interest, but we took the opportunity to survey Cassin's Auklets (*Ptychoramphus aleuticus*), Rhinoceros Auklet (*Cerorhinca monocerata*), Fork-tailed Storm-Petrels (*Oceanodroma furcata*) and Leach's Storm-Petrels (*O. leucorhoa*) also breeding on the islands. Field crew included **Laurie Wilson; Dan Shervill; Yuriki Hashimoto** and **Eric Gross** (both of ECCC-CWS, Delta, BC); and **Jake Pattison** (contractor, ECCC-CWS, Queen Charlotte, BC).

Laurie Wilson continues with her assessment of seabird bycatch in commercial salmon gillnet fisheries. Reports of bird entanglements from DFO test fisheries with observer programs and bycatch events reported by fishers will be tallied; these data will be used to derive seabird bycatch estimates.

Mark Hipfner (ECCC-CWS, Delta, BC) reported that summer 2016 marked the 23rd year of operation of the Centre for Wildlife Ecology's seabird research and monitoring program on Triangle Island. The 2016 field crew consisted of **Glenn Crossin** (Dalhousie University, Halifax, Nova Scotia [NS]), **Alice Domalik** (SFU, Burnaby, BC), **Erika Lok** (ECCC-CWS, Delta, BC), **Mark**

Maftai (ECCC-S&T, Delta, BC), **Katharine Studholme** (Dalhousie University, Halifax, NS), and **Ken Wright** (ECCC-S&T, Delta, BC), in addition to Mark. As in past years, the Triangle Island crew monitored breeding chronology and success in Cassin's Auklet, Rhinoceros Auklet, and Black Oystercatcher (*Haematopus bachmani*).

The focus of the research effort in 2016 (including the work on Triangle) was **Katharine Studholme's** Ph.D. project, co-supervised by **Mark Hipfner, Glenn Crossin**, and **Sarah Iverson** (Dalhousie University, Halifax, NS), and **Alice Domalik's** M.Sc. project, co-supervised by **Mark Hipfner** and **David Green** (SFU, Burnaby, BC). Katie's Ph.D. project, which started in 2013 and has many collaborators, involves deploying and retrieving global location sensing (GLS) tags on Cassin's and Rhinoceros Auklets on colonies spanning the Northeast Pacific, from California to Alaska. Alice's project, which started in 2016, involves deploying global positioning system (GPS) tags on breeding Cassin's and Rhinoceros auklets on several major colonies in BC. In 2016, work on these projects occurred on Cleland, Pine, and Lucy Islands, as well as S'Gang Gwaay, and included many members of the Triangle crew (Hipfner, Maftai, Wright) plus **Amos Chow** (ECCC, Delta – CWS), **Andrew Huang** (ECCC-S&T, Delta, BC), **Sarah Hudson** (ECCC-S&T, Delta, BC), **Catherine Jardine** (Bird Studies Canada, Delta, BC), **Glen Keddie** (contractor, ECCC-CWS, Smithers, BC), **Agathe LeBeau** (ECCC-CWS, Delta, BC), **Britney Niedzielski** (ECCC-CWS, Delta, BC), and **Strahan Tucker** (DFO, Nanaimo, BC). Hudson, Maftai, and Wright also assisted several U.S. collaborators with GLS retrievals on Protection and Destruction islands, Washington. Blood samples were collected at all sites as part of a closely-related project that aims to measure the extent of population genetic structuring in Rhinoceros Auklets, and tests the hypothesis that structuring is

REGIONAL REPORTS

determined by the extent of overlap in wintering areas. The genetics work is being led by professor **Theresa Burg** and M.Sc. candidate **Marie Prille** (Lethbridge University, Lethbridge, Alberta).

Several research projects were carried out concurrently with the logger deployments in 2016. **Mark Hipfner**, **Strahan Tucker**, and **Marc Trudel** (DFO, Nanaimo, BC), along with a host of DFO collaborators, completed the fifth year of a joint EC-DFO project investigating the consumption of salmon (*Oncorhynchus spp.*) by seabirds in BC waters. Mark and **Moir Galbraith** (DFO, Sidney, BC), along with several collaborators, completed the eighth year of a project investigating spatio-temporal variation in the diets of Pacific sand lance (*Ammodytes hexapterus*) and Pacific herring (*Clupea pallasii pallasii*), two vitally important forage fish to seabirds in British Columbia.

Finally, **Mark Hipfner** and **Mark Maftei**, along with **Sean Boyd** (ECCC-S&T, Delta, BC) visited St. Helena Island, Nunavut, in 2016 to deploy satellite tags on Thayer's Gulls (*Larus thayeri*). These gulls winter primarily in the Pacific. Afterwards, Hipfner and Maftei, along with **Shanti Davis** (ECCC-CWS, Delta, BC), visited Nassuravaalik Island, Nunavut, to continue ongoing studies of a suite of ground-nesting seabirds including Arctic Tern (*Sterna paradisaea*), Sabine's Gull (*Xema sabini*), and Ross's Gull (*Rhodostethia rosea*).

Luke Halpin (Halpin Wildlife Research, Vancouver, BC) continued to lead investigations of seasonal at-sea movements of Fork-tailed Storm-Petrels and Leach's Storm-Petrels on the west coast of Vancouver Island. Collaborators include **Ingrid Pollet** (Dalhousie University, Halifax, NS), **Harry Carter** (Carter Biological Consulting, Victoria, BC), **Erika Lok** (ECCC-CWS, Delta, BC), and **Ken Morgan** (ECCC-CWS, Sidney, BC). Luke also worked for the CWS conducting at-sea seabird surveys in the northeast Pacific and the western Arctic Ocean to investigate pelagic

seabird distributions. In 2016, Luke also worked on bioacoustic monitoring of Japanese Murrelets (*Synthliboramphus wumizusume*) and Swinhoe's Storm-Petrels (*Oceanodroma monorhis*) in Kyushu, Japan, conducted various population and inventory studies for "Species at Risk" in Canada and assisted the annual U.S. Fish and Wildlife Service albatross census on Midway Atoll (Midway Atoll National Wildlife Refuge).

Harry Carter (Carter Biological Consulting, Victoria, BC) conducted seabird projects mainly in California and Japan in 2016. Field work in BC involved: (1) surveying Double-crested (*Phalacrocorax auritus*) and Pelagic Cormorant (*P. pelagicus*) colonies in the Vancouver area with **Mark Drever**, (ECCC-CWS, Delta, BC) and Pelagic Cormorants at Quatsino Sound; and (2) collaborating with **Luke Halpin** and others on storm-petrel studies. With **Spencer Sealy** (University of Manitoba, Winnipeg, Manitoba) and others, work continues on historical seabird records and alcid vagrancy.

Alan Burger (University of Victoria [UVic], independent consultant) is mostly retired but continues to study the Marbled Murrelet (*Brachyramphus marmoratus*) including contracts, reviews, conservation and publishing. He is currently the PSG Election Committee coordinator and the president of the Federation of BC Naturalists (BC Nature).

The Laskeek Bay Conservation Society (LBCS; Queen Charlotte, BC) completed their 27th field season of monitoring marine and terrestrial ecology in Laskeek Bay, Haida Gwaii. **Vivian Pattison** and **James MacKinnon** (both of LBCS, Queen Charlotte, BC) spent 30 April – 22 July at Limestone Island, conducting various research and monitoring projects, training the many volunteer and student assistants, and educating the volunteers as well as local student groups and visitors from tour boats about seabird biology, local ecology, and conservation issues. In May, Ancient Murrelet chick departures were

monitored from this small colony for the 27th consecutive season. The number of chicks leaving from the Limestone Island colony has declined over time and 2016 was again a very low year for chick departures. Raccoon predation has caused declines in the colony and monitoring for raccoons with remote wildlife cameras now occurs throughout the murrelet breeding season. Wildlife cameras are also being used as a new method of counting murrelet chicks as they leave the colony.

Black Oystercatcher (*Haematopus bachmani*) surveys took place once again, in Laskeek Bay and to the south in Gwaii Haanas, on the islands surrounding Lyell Island. **Jake Pattison** (LBCS, Queen Charlotte, BC), joined the crew for one survey in Gwaii Haanas. LBCS science advisor and co-founder **Tony Gaston** (ECCC-S&T, Ottawa, Ontario) joined the crew for oystercatcher chick banding in Laskeek Bay. Oystercatcher breeding success in Laskeek Bay was high, with the highest number of chicks banded since 1993. Other monitoring activities that took place over the season included Glaucous-winged Gull (*Larus glaucescens*) colony censuses, and Cassin's Auklet and Pigeon Guillemot (*Cephus columba*) nestbox monitoring.

Ken Morgan (ECCC-CWS, Sidney, BC) attended the 2nd World Seabird Conference (WSC2), in Cape Town, South Africa, where his duties as Co-chair of the Travel Awards Committee (TAC) ended. The TAC granted a total of approximately \$128,000 (USD) in travel awards, shared by 89 applicants. Roughly 82% of the funds went to students/early career scientists, with the remainder going to established scientists from developing countries. At the end of WSC2, Ken was nominated to be the Alternate North American Regional Representative to the World Seabird Union (WSU). **Kim Nelson** (Oregon State University [OSU], Corvallis, Oregon) is the Primary North American Regional Representative to the WSU.

Ken continues as the National Contact Point for Canada on the Agreement on

REGIONAL REPORTS

the Conservation of Albatrosses and Petrels (ACAP) and has participated in (1) ACAP's Advisory Committee, (2) the Seabird Bycatch Working Group (WG), and (3) the Population and Conservation Status WG meetings in Chile. He continues to chair the Pacific Region Seabird Bycatch Working Group and Canada's Albatross and Shearwater Recovery Team, and is a member of the International Short-tailed Albatross Recovery Team. Ken is also quite active in the PSG -- he is a member of the Code of Conduct Committee and of the Elections Committee. Ken continues working with **Patrick O'Hara** (ECCC-CWS, Sidney, BC / UVic, Victoria, BC), **Caroline Fox** (Dalhousie University, Halifax, NS / UVic, Victoria, BC), and others on projects assessing spatial & temporal overlap of seabirds and marine stressors (Fox et al. 2016, Science of the Total Environment).

Gary Kaiser (Royal BC Museum, Victoria, BC), along with a team from the Royal BC Museum in Victoria, completed a study of some Oligocene fossils of a marine bird from Sooke, BC and published the results in *Paleontologia Electronica* in December. The team only had a coracoid and two fragmentary leg bones to work with but succeeded in describing *Stemec suntokum* (Suntoks' long-necked duck) as one of only two small species known in the family Plotopteridae. The description was based on features of the unusually long and slender coracoid. The two leg bones are from a similar-sized bird and have some cormorant-like characteristics, but they were found separately and cannot be assigned to the same species. The team is currently examining another unusual coracoid found in Cretaceous deposits off Hornby Island, BC. Its location in marine sediments implies that the remains represent a seabird but no apomorphies have been preserved. Therefore, assignment of the fossils to any of the known Cretaceous families is problematic (Kaiser et al. 2015. *Paleontologia Electronica*).

Joanna Smith (TNC Canada, PhD, RPBio) is leading a multi-objective marine spatial planning process in Sey-

chelles for a 30% marine protection goal, to support the Blue Economy, and to address climate change adaptation. The Seychelles MSP Initiative began in 2014 and uses more than 100 data layers to inform the development of a zoning design including BirdLife Important Bird Areas, seabird colony data sets and foraging studies for frigatebirds and terns. Jo also supports or provides advice to marine planning processes in Indonesia, Mexico, the Caribbean, and Canada, including implementation of the Marine Planning Partnership for the North Pacific Coast (MaPP). Jo was co-organiser for the 4th Marine Spatial Planning Session at PSG's 43rd Annual meeting in Hawaii, and will be co-organising the 5th MSP session for the 44th meeting in Tacoma. Jo is a PSG Former Chair and volunteers as the PSG Communications Committee Coordinator, maintaining the PSG website, doing a refresh of the PSG website and PSG logo with Anne Francis Web Design, and is chair of the ad hoc Code of Conduct Committee.

CENTRAL CANADA

Gail Fraser (York University, Toronto, ON) continues a monitoring program (started in 2007) on breeding Double-Crested Cormorants. The colony, at Tommy Thompson Park in Toronto, is now one of the largest non-lethally managed colonies in eastern North America (11,908 nests in 2015). Of conservation concern, is a private member's bill (Bill 205) amending the Ontario Fish and Wildlife Act, now under committee review in Ontario legislation. If passed it removes Provincial protection of Double-crested Cormorants and would permit unregulated take. The proponent of the bill cites "imbalance and the overpopulation of a predatory species."

EASTERN CANADA

Seabird research and monitoring on Machias Seal Island (MSI) in the Bay of Fundy, New Brunswick (NB), began in 1995 and continued in 2016. **Tony Diamond** (University of New Brunswick [UNB], Fredericton, NB) began handing over the reins to **Heather Major** (UNB,

Saint John, NB) who will continue this program in the future. Tony "retired" in July but will continue his research involvement there as an emeritus.

Change in the seabird community also continues apace: Atlantic Puffins (*Fratercula arctica*) had their worst breeding season on record, fledging from only 12% of active burrows, with mean fledging weight (191g) below 200g for the first time (the long-term mean is 280g). Razorbill (*Alca torda*) numbers decreased slightly to 2130 pairs in 2016 (from 2550 in 2015) due apparently to increased egg predation by Herring Gulls (*Larus argentatus*) with perhaps some usurpation of nesting habitat by the increasing numbers of Common Murres (*Uria aalge*; estimated at over 400 pairs). Several monitored puffin burrows have also been usurped by Razorbills, so habitat competition is now evident in this crowded colony. GLS tags were retrieved from both puffins and Razorbills and will form the foundation of research by a new graduate student. Arctic Terns (*Sterna paradisaea*) fledged about 50 chicks, and for the first time in 12 years, several Common Tern (*Sterna hirundo*) nests also hatched chicks. Three pairs of Northern Gannets (*Morus bassanus*) built nests, one of which contained an egg for a few days; pairs were present throughout the summer.

On MSI, graduate students **Angelika Aleksieva** (McGill University, Montreal, Quebec [QC]) collected blood and foot-web samples from known-age puffins for her study of pentosidine as a possible age-marker in seabirds with **Kyle Elliot** (McGill University, Montreal, QC), and **Lucy Smith** (UNB, Saint John, NB) collected feather samples to examine genetic dispersal in the Gulf of Maine metapopulation of puffins with **Heather Major**, **Stefanie Collar** (contractor, San Diego, CA), and **Marla Koberstein** (contractor, Kirkland, WA), all of whom provided skilled and energetic technical support.

Erin Whidden (UNB, Fredericton, NB) completed her M.Sc. thesis on recruitment in MSI puffins, finding it to depend (inversely) on the number of other islands visited prior to breeding.

REGIONAL REPORTS

Lauren Scopel (UNB, Fredericton, NB) continued her Ph.D. research on causes and consequences of the collapse of the MSI tern colony in 2006. **Stephanie Symons** (UNB, Fredericton, NB) is writing up her two-season study of feeding movements in puffins and Razorbills on MSI, using Ecotone® GPS tags, finding that the species overlap surprisingly little in their feeding areas but also that tagged adults of both species greatly reduced their feeding of chicks compared with their untagged mate and control birds. **Kate Shlepr** (UNB, Fredericton, NB) spent the summer using similar tags on gulls on Great Duck Island, Maine, following two seasons of tagging Herring Gulls breeding on Brier Island, NS, and Kent Island, NB, where she found that gulls focused on mink farms, fish processing plants, and other anthropogenic sources of food.

Christy Wails (UNB, Saint John, NB) completed her M.Sc. (with **Heather Major**) on Least (*Aethia pusilla*) and Crested (*A. cristatella*) auklet movements, colony attendance, and behavior. She found that some Crested Auklets return to their breeding site on Gareloi Island (Alaska) in the winter and that sub-adult prospectors spent much less time socializing on the colony surface than adults.

A visitor to MSI, upon reviewing his photos after his trip, found several containing an unmistakable Ancient Murrelet among the puffins on the water! Following the Tufted Puffin (*Fratercula cirrhata*) that came ashore and billed with Atlantic Puffins in 2014, PSG members in the east look forward to more interactions with seabirds from the Pacific as well as West Coast-based PSG researchers.

Stephanie Avery-Gomm (University of Queensland, Brisbane, Australia), formerly of ECCC-S&T in St. John's, Newfoundland [NL], moved to Australia to undertake a Ph.D. but still enjoys working with Canadian colleagues. Collaborations include ongoing work to map the distribution of seabirds in the Labrador Sea with **Dave Fifield**,

Greg Robertson, and **April Hedd** (all from ECCC-S&T, St. John's, NL), and **Carina Gjerdrum** (ECCC-Canada Wildlife Service, Dartmouth, NS), and research on the impacts of plastic ingestion on seabirds in the Arctic Ocean and Labrador Sea with **Jennifer Provencher** (Carleton University, Ottawa, ON), **Max Liborion**, **Ian Jones**, **Katharine Robbins**, **Carley Schaefer** (latter four from Memorial University of Newfoundland (MUN), St. John's, NL) and others. Recent publications include a study on plastic ingestion in Dovekies (*Alle alle*) and a review of plastic ingestion research with recommendations for standardization.

In April 2016, Stephanie joined the organizing committee for the 2nd World Seabird Twitter Conference. This conference format was such a success -- 72 presenters from 11 countries with a potential audience of 2.1 million users -- that the committee published a letter about the concept in the journal Science. Over the past year, Stephanie has been an active member of the Pacific Seabird Group, representing Canada as a Regional Representative, and participating on the Communications Committee.

Rob Ronconi (ECCC-CWS, Dartmouth, NS) has been the lead on projects associated with the ECCC World Class Tanker Safety Systems initiative. The CWS contribution to this initiative aims to increase understanding of sensitive species' abundance and distribution in areas of high oil tanker traffic. In collaboration with **Carina Gjerdrum** (ECCC-CWS, Dartmouth, NS) and **Julie Paquet** (ECCC-CWS, Sackville, NB), projects have included at-sea surveys, telemetry studies, and data compilation for various species including Razorbill, Black Guillemot (*Cepphus grylle*), phalaropes (*Phalaropus spp.*), Harlequin Duck (*Histrionicus histrionicus*), and Purple Sandpiper (*Calidris maritima*), among others. Rob has also been working with **Francois Bolduc** (ECCC-CWS, Quebec, QC) on the development of data processing methodologies to

make data more readily accessible and understandable by ECCC emergency response teams.

Rob also worked part-time with Bird Studies Canada (BSC) on a project entitled, "Risk hotspot identification for colonial seabirds in Atlantic Canada." Working with **Laura McFarlane Tranquilla** (BSC, Sackville, NB), **Sue Abbott** (BSC, Dartmouth, NS), **David Lieske** (Mount Allison University, Sackville, NB), and more than a dozen data contributors, the project is designed to assess the cumulative effects of anthropogenic risks to breeding seabirds by combining seabird tracking data, colony data, a seabird vulnerability assessment, and a geodatabase of human threats.

In 2016, **Rob Ronconi** and **Sarah Wong** (Acadia University, Wolfville, NS) taught a Marine Ornithology field course for a second year through Dalhousie University, Halifax, NS. Student projects included at-sea surveys, colony census, and dietary analysis of gull (*Larus spp.*) pellets. After the course, they continued to work with students to contribute data to CWS databases and publish study results.

ARCTIC CANADA

Grant Gilchrist (ECCC-S&T, Ottawa, ON) and **Kyle Elliot** (McGill University, Montreal, QC) led a team to study Thick-Billed Murres (*Uria lomvia*) at three Arctic colonies in 2016: Coats Island, Digges Island and Cape Graham Moore. Team members included **Isabeau Pratte**, **Kerry Woo**, **Bruen Black**, **Will Black** (all contractors, ECCC-S&T, Ottawa, ON), **Graham Sorenson** (M.Sc. student, University of Windsor, Windsor, ON), **Thomas Lazarus**, **Emile Brisson-Curadeau**, and **Tianna Burke** (all students, McGill University, Montreal, QC). In addition to ongoing population monitoring, the team obtained positional tracks from over 100 individual murres to contribute to the environmental assessment for the Baffinlands mine that will ship iron ore past those colonies. Although ice conditions were relatively early, the

REGIONAL REPORTS

birds bred relatively late with a median hatch date of about July 26 (Coats) and July 28 (Digges). At Coats, a polar bear fed on the colony each night, eliminating at least 10% of the colony before the team left. Apart from the effect of the bear, reproductive success was typical and birds did not forage as exceptionally distant as they did in 2015.

ASIA & OCEANIA Compiled by Kuniko Otsuki

ASIA

Yutaka Watanuki (Hokkaido University, Japan) continued seabird monitoring work at Teuri Island. In 2016, no fledglings of Rhinoceros Auklets (*Cerorhinca monocerata*; RHAU) or Black-tailed Gulls (*Larus crassirostris*) were found, presumably due to anchovy (*Engraulis japonicus*) and Pacific sand lance (*Ammodytes hexapterus*) shortages. Breeding of Japanese Cormorants (*Phalacrocorax capillatus*) seemed to be normal. We expanded the study sites of RHAU to explore regional variation of diets and environmental factors. **Akiko Shoji** and **Kentaro Kazama** joined as post-docs. Shoji is working on RHAU and Kazama on developing protocols for evaluating windmill effects on seabirds. **Bungo Nishizawa** is currently studying marine environments and seabirds in the Arctic Ocean-Bering Sea.

Shin Matsui (Hokkaido Seabird Center [HSC]) reported on the status of the Common Murre (*Uria aalge*) at Teuri Island, Japan (about 30 km west of the north end of the island of Hokkaido), where only a remnant breeding colony of the species remains. Only a few birds exist at this colony which held about 8,000 murres in 1963. In 2003, the Japan Ministry of the Environment began using a social attraction system (including murre decoys and a sound system playing recorded murre calls), to attract and encourage Common Murres to continue breeding on Teuri Island. HSC staff have also monitored murre activity and breeding success at the site.

Since 2009, Common Murres have bred on the island only in a shallow cave near Akaiwa Rock. In 2016, to attract Common Murres, the sound system broadcasting murre calls was installed 20 m below the cave, in which fifty-two decoys were set in the past. Murre behavior and breeding success inside the cave was monitored using four remote charged coupled device cameras from April to July. From 2011 to 2016, between 7 and 13 Common Murre chicks fledged from the cave every year. **Mike Parker** (California Institute of Environmental Studies) and **Gerry McChesney** (U.S. Fish and Wildlife Service) are reviewing a draft of the final report from this project.

Shin Matsui also reported with **Makoto Hasebe** (Hokkaido Seabird Center, 2012-2014), and **Darrell Whitworth** (California Institute of Environmental Studies [CIES]) on the status of the Ancient Murrelet (*Synthliboramphus antiquus*) colony at Teuri Island. Nocturnal spotlight surveys have been determined to be the only practical method for assessing the size of the Ancient Murrelet population at Teuri, so at-sea spotlight surveys (Whitworth and Carter 2014) and night-lighting captures (Whitworth et al. 1997) were conducted over 7 nights between 30 May and 9 June 2016. The annual maximum counts on this survey were 161 to 299 murrelets from 2012 to 2015 (M. Hasebe and S. Matsui, unpubl. data). To investigate sexual dimorphism and genetic structure of the breeding population on Teuri Island, thirty murrelets were captured for sampling and banded over 6 nights in 2016; 57% of the murrelets had brood patches. Eight murrelet chicks departing the colony with parents were seen or heard during at-sea surveys. The Ancient Murrelet colony at Teuri probably numbers between 100 and 500 breeding pairs, but more surveys and detailed analysis of 2012-2106 data is needed to refine this estimate.

Kuniko Otsuki, **Yutaka Nakamura**, and **Yoshitaka Minowa** (Marine Bird Restoration Group [MBRG])

investigated Jungle Crow (*Corvus macrorhynchos*) and Carrion Crow (*C. corone*) predation on Japanese Murrelets (*Synthliboramphus wumizusume*) by studying patterns of occurrence and predation events at Birojima and nearby areas of Kadogawa. **Harry Carter** (Carter Biological Consulting, Canada) and **Darrell Whitworth** (CIES) assisted MBRG. Small numbers of crows were recorded on surveys at both areas and two Jungle Crow nests were found at Birojima. Fifteen murrelet carcasses were found around one Jungle Crow nest located in the central forest at Birojima. About 41 murrelet carcasses were also found in the trees by the beach, apparently killed by Carrion Crows. Both crow species appeared to take incubating adults from nests, kill them, and then take them to other parts of the island to eat them. In 2011-2016, about 35-110 murrelets per year were killed by crows. Japanese Murrelet hatching success was lower in 2016 (53%) than in 2013 (77%), which may be a result of increased crow predation. Similar low hatching success (55%) also had been found in 1993 when high predation also was recorded. **Nina Karnovsky** (Pomona College, USA) worked with MBRG to study crow predation at Birojima using cameras since 2015. We obtained many photos of Jungle and Carrion crows visiting murrelet nesting areas; one Jungle Crow was observed holding a Japanese Murrelet egg in the forest in April, and four photos showed Carrion Crows eating Japanese Murrelets inland from the beach in forest habitat.

Simba Chan (BirdLife International [BLI] Asia Division) reported that a survey team led by Burung Indonesia (BirdLife in Indonesia) and BirdLife's Asia Division confirmed a wintering site of the globally threatened Chinese Crested Tern (*Thalasseus bernsteini*) in eastern Indonesia. At least one adult and possibly one first-year Chinese Crested Tern were seen in a flock of up to 250 Greater Crested Terns (*T. bergii*) near Seram Island (about midway between Sulawesi and Papua). Threats to the site and the birds were assessed

REGIONAL REPORTS

in detail during the one-week survey conducted in mid-January 2016, and the team also visited local university and government institutions to raise awareness of the nearby presence of this Critically Endangered seabird. The project is supported by the Ocean Park Conservation Foundation (Hong Kong) and the Prevent Extinction Programme of BirdLife International. Another survey is planned for early 2017. We are trying to use terns (any species, but Chinese Crested, Great Crested and Aleutian could be flagships) to strengthen international studies and conservation of seabirds, especially those in Asia. The Seabird Working Group of the East Asian-Australasian Flyway Partnership will continue ongoing discussions of seabird conservation at their next meeting (i.e., in Singapore, January 2017). BLI secured a session at the International Ornithological Congress (IOC; Vancouver 2018) on seabirds: "Conservation Reliant Seabirds in the Pacific Basin." The team hopes more PSG members join the meeting at the IOC.

Dan Roby, Don Lyons, Yasuko Suzuki, Kirsten Bixler (Oregon State University [OSU]), and **Steve Kress** (Director, National Audubon Society Seabird Restoration Program) continued to provide technical support and assistance to restore the critically endangered Chinese Crested Tern (*Thalasseus bernsteini*) in the People's Republic of China. Project leaders included **Shuihua Chen** (Vice Director, Zhejiang Museum of Natural History) and officials from the Xiangshan Ocean and Fishery Bureau and from the Wuzhishan Islands Nature Reserve. Dr. Chen reports that the large mixed colony of Greater Crested Terns (*T. bergi*) and Chinese Crested Terns on Tiedun Dao in the Jiushan Islands National Nature Reserve failed this year due to an invasion of king rat snakes (*Elaphe carinata*) on the island. On a more positive note, at least six Chinese Crested Terns fledged from a large mixed crested tern colony on Yaque Shan in the Wuzhishan Islands Nature Reserve, about 100 km to the

north. Over 100 Greater Crested Tern fledglings were banded with field-readable leg bands at the Yaque Shan colony to learn more about seasonal movements and to test marking methods. This Chinese Crested Tern conservation project is a past recipient of a grant from PSG's Craig S. Harrison Conservation Small Grants Program.

Rob Suryan (OSU) continued collaborations on Short-tailed Albatross (*Phoebastria albatrus*) studies with **Kiyoaki Ozaki, Fumio Sato**, and **Tomohiro Deguchi** (Yamashina Institute for Ornithology). They focused on monitoring translocated and hand-reared birds to recruitment and breeding attempts at the new colony, as well as data analysis and manuscript preparation to fully document the translocation project - now 8 years since the first translocation!

Jane Dolliver, Rob Suryan (OSU), **Chris Noyles** (Bureau of Land Management), and **Erin Knoll** (U.S. Fish and Wildlife Service) conducted their first field season "Viewing Albatrosses from Space: Using Satellite Imagery to Count Birds" which paired albatross colony ground counts with satellite image analysis to test the feasibility of estimating breeding colony size from satellite imagery. Ground based calibration sites included Kaena Point, Oahu (**Lindsay Young** and **Eric VanderWerf**, Pacific Rim Conservation), Midway Atoll (**Meg Duhr-Schultz, Jenny Johnson**, and **Richard Johnson**, USFWS), and Torishima (**Hiroshi Hasegawa**, Toho University, retired). The initial application of this project is to conduct breeding population counts of Short-tailed Albatross (*Phoebastria albatrus*) at the Senkaku Islands, which are inaccessible to biologists, yet critical in determining whether the species is meeting recovery criteria. Depending on the level of success, this approach could have widespread application.

OCEANIA

Stephanie Avery-Gomm (University of Queensland, Brisbane, Australia) commenced a Ph.D. in October 2015.

Her thesis involves a desktop-based analysis which utilizes seabird colony count data, collected by thousands of researchers around the world over the past 60 years. Her objective is to map the spatial distribution of historical seabird population declines, and develop new methods for identifying the drivers of declines that could be used to inform conservation of under-studied populations. She says 'thank you' to all of the researchers around the world who have contributed population time-series data through publication, or directly. In addition to her Ph.D., Stephanie helped to organize the 2nd World Seabird Twitter Conference in April 2016 (Avery-Gomm et al. 2016), has ongoing collaborations with Canadian colleagues, and is an active member of the Australasian Seabird Group.

Avery-Gomm, S., Hammer, S., & Humphries, G. (2016). The age of the Twitter conference. *Science*, 352(6292), 1404-1405.

Lorna Deppe and **Sharyn Goldstien**, with the help of **O. Rowley, O. Gooday, R. White** and **N. Shi**, from the University of Canterbury, Christchurch, New Zealand (NZ), in collaboration with the Hutton's Shearwaters Charitable Trust (facilitated by **L. Rowe, N. McArthur, W. Lonsdale, J. Weir**) and funded by Encounter Foundation Kaikōura and the Department of Conservation, NZ, have been assessing fallout events observed in Hutton's Shearwater / Kaikōura tītī (*Puffinus huttoni*) fledglings during March/April in and around Kaikōura, NZ. The species is listed as nationally endangered after having suffered dramatic population declines in recent history and today breeds in only two remaining colonies at 1200-1800m above sea level in the Kaikōura Ranges. A third colony was developed by researchers in 2005, with chicks translocated to enhance fledgling rates and ultimately improve population numbers. Each year chicks become grounded on their maiden flight across Kaikōura to reach the sea. To provide scientific evidence to local authorities so that sensible and case-specific mitigation measures could

REGIONAL REPORTS

be implemented, the team investigated the spatial distribution of grounded birds regarding artificial light sources, effects of moon phase and weather on the occurrence and intensity of fallout, as well as the magnitude and population effects of the fallout phenomenon. The study focused on data collected over three seasons (2014-2016) during which rescue campaigns were in place. The results were presented at the International Albatross and Petrel Conference (IAPC6) in Barcelona in 2016, with a manuscript for publication currently in preparation. There is additional information at www.huttonsshearwater.org.nz.

Caitie Kroeger and **Scott Shaffer** are collaborating with **David Thompson** and **Paul Sagar** of the National Institute of Water and Atmospheric Research in New Zealand. **Caitie Kroeger** is studying the foraging ecology and energetics of two albatross species at Campbell Island in New Zealand.

EUROPE & AFRICA

Compiled by **Ross Wanless**

AFRICA

Ross Wanless and colleagues at BirdLife International (**Maria Diaz** and **Justine Dossa** in particular) oversaw the development of Marine Important Bird Areas in West Africa. These are now being presented to stakeholders in a consultative process within each country before being finalized and made publicly available. Ross also worked with **Anton Wolfaardt** (representing the Agreement on the Conservation of Albatrosses and Petrels; ACAP) to present ACAPs recently updated Best Practice advice on seabird bycatch mitigation to the Indian Ocean Tuna Commission. Ross is also working with colleagues at BirdLife South Africa (BLSA) to host regional workshops aimed at preparing nations with significant tuna longline fishing effort to contribute fishing effort and seabird bycatch data, and analyze those data collaboratively in a global assessment workshop in 2018. **Taryn Morris** leads in placing seabird observers onboard research cruises, both in West Africa and South Africa. She also leads on African Penguin (*Spheniscus demersus*) tracking and assessing overlap with small pelagic

The goal is to report on the status and trends of selected species, identify data gaps, and improve standardization and long-term monitoring of Arctic seabirds.

ANTARCTICA

Peter Kappes is working on a PhD with his adviser, **Katie Dugger**, at Oregon State University, investigating the reproductive ecology and population dynamics of Adélie Penguins (*Pygoscelis adeliae*) breeding on Ross Island, Antarctica. **Nina Karnovsky** (Pomona College, Claremont, California) was co-author on a paper published on the differing foraging strategies and influence on mercury exposure in an Antarctic Penguin Community. (Polito et al. 2016, Environmental Pollution 218: 196 -206).

Correction:

In Pacific Seabirds 42(1-2), page 17, there was an error on the compiler of the country report. The compiler for the Canada report should be **Stephanie Avery-Gomm**. Apologies to Stephanie Avery-Gomm.



Recipients of the Lifetime and Special Achievement Awards in 2016 (from left to right): John Piatt, Lindsay Young, David Ainley for Larry Spear, and Gus Van Vliet. Photo credit: Nina Karnovsky

REPORTS OF PSG OFFICERS

CHAIR'S REPORT FOR 2015

Kathy Kuletz

I have enjoyed being part of the PSG since the late 1970s, first as an 'early career' scientist, then a graduate student, then 'mid-career' scientist, then graduate student again, and now as an 'established career' scientist. At all phases I've enjoyed the comradery, inspiration, and scientific dialog of PSG members - especially at the annual meetings. In the late 1990s, I served as PSG Secretary, which gave me some indication of the work that went on behind the scenes. As Chair-Elect and current Chair, I've seen how the goals and activities of PSG have grown, and witnessed the dedication and volunteer efforts of those in the Executive Council and active members who work towards achieving those goals. It has been a humbling and invigorating two years as Chair-Elect and current Chair – and I look forward to the next phase as Past Chair.

The main responsibility of the Chair (as stated in the Bylaws) is to "execute the objectives, policies, and programs developed by the Executive Council and membership" for the business and affairs of PSG. This largely means the Chair oversees the progress and accomplishments of ExCo and committee members working on assigned tasks. In this, I've been fortunate to have the expert support and tireless efforts of Past Chair Jo Smith, the organizing skills of Secretary Jane Dolliver, the financial expertise of Treasurer Christine Ogura, and the knowledge and good judgment of Vice-Chair for Conservation, Stan Senner. Not least of all, I appreciate the enormous contributions of Chair-Elect Nina Karnovsky and Local Chair Lindsay Young at putting together the 43rd meeting. These leaders, and the committee members that work with them, continue PSG's legacy of promoting the science and conservation of seabirds. Thank you for allowing me to briefly take the helm of the ExCo. At

the 2016 PSG meeting, I will hand off the baton of Chair to Nina Karnovsky, a capable and enthusiastic supporter of PSG and seabirds.

The details of tasks and accomplishments from the past year are presented in the individual reports submitted by Board members and committee leads, but some important highlights include:

- Bylaws review and revisions were accepted by the ExCo, and a clean version will be sent out to general members for final authorization in late February or early March 2016
- The Past Chair oversaw transition and upgrades of the PSG Website and listserve
- Through the Vice-Chair for Conservation and review of the Board, PSG submitted 5 letters regarding issues of seabird conservation to US federal agencies and the Minister of the Environment in Japan
- The Elections Committee used Survey Monkey for the third year in a row to assist in decision making about meetings and format of publications
- The Code of Conduct Ad hoc Committee provided a draft COC and implementation suggestions for ExCo review
- The Local Committee for the 2016 meeting used RegOnline for abstract submission for third year in a row
- Local Committee used RegOnline for abstract submission second year in a row
- The Communications Committee provided recommendations for Pacific Seabirds frequency, format and content Member survey for *Pacific Seabirds* format and content
- Gary Kaiser was contracted for temporary assistance as Business Manager for Marine Ornithology

- Tony Gaston, who has run MO since its inception, will be transferring responsibilities to Louise Blight, whom we welcome as the new Managing Editor for MO!
- Funds raised for student travel awards at the 2015 meeting exceeded \$3,880. For the 2016 meeting, PSG Chairs reviewed and approved travel costs of 9 students and 6 foreign scientists
- The Craig S. Harrison Conservation Fund has \$7,133 and continues to solicit proposals.

Financially, PSG is in good shape and the Treasurer has made major organizational improvements in our budget and accounting procedures. The detailed Treasurer's report describes the additional costs and expenditures encountered in 2015, and highlight the need to have a quick resolution of final accounting from annual meetings. We have a modest balance in our operating account, the Endowment Funds are doing well, and our assets are sufficient to cover the required three years of operational costs and publications. Annual membership dues and profit from the annual meeting continue to provide our primary operating expenses. The ExCo will seek to grow the membership base and secure dues to ensure a strong operational funding source. Out-going Treasurer Chistine helped our new Treasurer, Martin Renner, during the transition; Welcome to ExCo, Martin!

As Incoming Chair, I inherited a FY14 Work Plan that has been used to guide tasks and track achievements; it is a living document that was adjusted in FY15 and now again for FY16. Most of the high priority tasks from FY14-15 have been accomplished. One exception is the on-line publication of the newly vamped Pacific Seabirds bulletin. Through membership surveys and the work of the Communications Committee, we have a template for what is wanted, but without an Editor in

REPORTS OF PSG OFFICERS

Chief, the task fell to me as Chair, and I was not able to gather enough of a team to complete the 42nd issue until May 2016 (but thanks to great volunteers, it was finally done!). [Note: in summer 2016, Jennifer Lang stepped up as the new Editor of PS43 – thanks Jennifer!]

From our surveys and registration records, it is clear that PSG has a large student and early career scientist contingent. That is part of what makes PSG a vibrant, healthy and active society, and it bodes well for PSG's future. The ExCo and Past Chair, in particular, have done much to advance the operational foundations of PSG, and the ExCo sees this as a good time to re-envision the direction and future of PSG. One step towards improving operations will be establishing an 'Annual Meeting Committee', to reduce the overwhelming responsibilities and learning curve required of every Incoming Chair and Local Committee; some excellent suggestions have already been outlined for the ExCo. A revision

of the PSG Handbook is a goal for 2016 that will, among other advantages, assist the effort to streamline planning and production of our annual meetings.

To address the many tasks and goals of the Work Plan, the ExCo held a record nine meetings via teleconference this year, and for the time and effort this required of everyone I am grateful. As Past Chair, I will work with the Board to continue making headway on our 2016-2017 Work Plan, with the overarching goal of developing a strategic plan to guide the direction of our Society. In doing so, I hope we can build on PSG's strengths such as the involvement of student and early career scientists.

In closing, I again thank the following for your many hours of dedicated work in moving PSG forward: Board and Committee members, Technical Committee Chairs and Members, Working Group Chairs and members, with special thanks to Jane Dolliver (Secretary *Extroardinaire*), Nina Karnovsky (Incoming Chair and

director of the Science Program for 2016), Joanna Smith (Past Chair, and still going strong on Website, Listserve, Awards, Code of Conduct, and more), Pat Baird (Past Secretary and Bylaws Committee), Doug Forsell (Past Chair and Bylaws Committee), Christine Ogura (Treasurer, Investment Fund), Stan Senner (Vice-Chair for Conservation, Bylaws Committee), Tony Gaston (Marine Ornithology), Alan Burger and members of the Elections Committee, Jennifer Lang (Membership Coordinator), Lindsay Young (past Treasurer, RegOnline guru and Local Committee for 2016), Verena Gill (PSG List Serve, Conservation Fund), Jen Zamon (Coordinator of Code of Conduct Committee), Andrew Titmus, (Student Representative), Vivian Mendenhall (Past Editor Pacific Seabirds, Bylaws Committee), and Jim Kushlan and Ken Briggs (Investment Fund Trustees). I encourage other members to join in the action.

CHAIR ELECT'S REPORT FOR 2015

Nina Karnovsky

My learning curve as Chair-Elect was steep. I am deeply indebted to my mentors Kathy Kuletz (Chair) and Jo Smith (Past Chair), and Jane Dolliver (Secretary). I also benefitted greatly from the expert advice of Local Committee Chair, Lindsay Young, and the enthusiastic participation of other EXCO members. The primary duty of the Chair Elect is to develop the scientific program of the meeting. The 43rd annual meeting was held at Turtle Bay, O'ahu, Hawai'i. The theme I chose for the scientific program was 'Seabirds: Responses and Resilience.' At the meeting there were seven Special Paper Sessions and one Symposium. We had two plenary speakers, Lisa Ballance and Bill Sydeman. See 'Meeting Notes' for a full description of the meeting.

DEADLINES

Registration opened on August 22, 2015. The initial Travel Award Application deadline was 30 October 2015 but was extended to 20 November. The initial general abstract submission deadline was November 13, 2015 but was extended to November 30, 2015. The extensions were made because many members were at the World Seabird Conference during the deadlines. I posted several reminders via the Pacific Seabirds listserv. Announcements also went out regularly through Facebook and Twitter thanks to the wonderful Communications Committee members.

SCHEDULING

I made a preliminary sketch of the schedule overview on December 1,

2015. Program production (abstracts, sessions, speakers, session chairs) began in earnest mid-January 2016. By late January, a total of 181 abstracts were submitted (137 oral, 44 posters) which was in keeping with the numbers at the San Jose meeting the year before. At least 20 people had more than 6 authors on their presentation. One of the main difficulties with the RegOnline system that we used was that only 6 names of authors can be entered when you submit an abstract. I am thankful for the assistance of Mimi Starr, an undergraduate at Pomona College who helped to enter the additional authors' names and affiliations manually. In the future, we may want to revisit whether we keep using RegOnline for this purpose.

REPORTS OF PSG OFFICERS

From December until early February, I worked with Special Paper Session leaders to coordinate papers and provided additional papers from abstracts submitted. I also worked with leaders on the order of talks in their sessions. Several people did not end up in the sessions they requested because they either requested a session in error (e.g. some invited speakers to SPSs did not register for those sessions), their talk fit better with another session on the basis of what they wrote in their abstract, or SPS organizers requested changes.

There were many special requests made directly to me. Some people had to leave the meeting early and others did not want their session to overlap with another they had a particular interest in. I did my best to accommodate everyone. There were even more changes when the meeting got underway due to delayed flights and sickness of some

presenters. During the conference, I made announcements in the mornings about the changes and hung up updated schedules outside of the three rooms where papers were presented.

PROGRAMS AND ABSTRACT BOOKS

I printed the programs at Pomona College, and Pomona College students and I carried them to Hawai'i in our luggage to save money on printing costs. We made a handful of bound copies of the abstract books which were available at the registration desk for people to look at. The abstract book was available as a pdf online several weeks before the meeting. David Bachman, a professor of Mathematics at Pitzer College, helped to write a computer program to compile the abstracts and create the index with names and page numbers.

PARTICIPATION IN THE AWARDS COMMITTEE

I participated in the selection of the Lifetime Achievement Award (LAA) and the Special Achievement Award (SAA) recipients, and in selecting the student travel and foreign scientist travel awardees.

I hope to be able to pass on what I have learned to future Program Chairs. It was a challenging but extremely rewarding experience. The best part was getting to know much more of the incredible seabird research and conservation work that PSG members carry out. I am in awe of how much time and effort it takes to put together a PSG annual meeting and was deeply moved by those who volunteered their time to make it a success.

PAST-CHAIR'S REPORT FOR 2015

Joanna Smith

2015-2016 Summary of Past Chair Tasks

- Transitioned website responsibilities from long-time webmaster, Annette Henry, to the Past Chair (Interim Webmaster) and a part-time private consultant (Anne Francis Web Design) to maintain the website.

- Created new PSG listserv on BlueHost server.

- Led the ad hoc Code of Conduct Committee to develop a draft Code by November 2015 for discussion by ExCo and members.

- Awards Committee Chair: LAA – John Piatt and Larry Spear; SAA – Lindsay Young and Gus van Vliet.

- Travel Awards Chair: Awarded 2016 travel awards to 9 students and 6 scientists; 29 applications in total.

- Organised student presentation judging: 24 volunteers for 42 student papers.

- IRS Policies and Procedures: Drafted two new policies to complete PSG

project – grants policy and document retention policy.

As per the PSG Handbook, there are six main responsibilities for the Past Chair. The outputs from these are summarised above, with more detail below.

1. Helping the Chair with activities of the PSG

- Workplan. Created an up-to-date workplan for the 2015-2016 EXCO that was handed to Secretary and Chair in March 2015.

- Policy and Procedures Project. One of the important projects during my tenure on the EXCO was to ensure that PSG had the policies and procedures in place that are recommended by the IRS for non-profit societies, and relevant to PSG. A conflict of interest policy was finalised for the EXCO in Feb 2015, and all EXCO sign this when they begin their tenure. Also finalised last year was the Investment Policy for PSG's endowment accounts. A third policy document needed

for PSG was a Code of Conduct. So, an Ad Hoc Code of Conduct Committee was formed in Feb 2015 in San Jose, with Jeanette Zamon volunteering to be the Coordinator and Chair. There were six members on the committee and they met six times in 2015 between May and December. A draft Code of Conduct was developed in September 2015 and was reviewed by the Past Chair and Vice-Chair for Conservation. Dr. Zamon received comments and addressed or revised the document with the committee. A final Code of Conduct from the Committee was received by the Past Chair on 4 December 2015. An implementation proposal was developed by the Committee also, for EXCO consideration.

- Listserv. The PSG listserv was successfully moved from the USFWS to BlueHost in Dec 2015 and was operational with new members immediately. I worked many hours with Anne Francis (website designer) to get

REPORTS OF PSG OFFICERS

several roadblocks because of software. I am grateful for the assistance from the Listserv Coordinator, Verena Gill and a sub-contractor that was hired by Anne Francis. See listserv report from Verena Gill

- Website. In April, we transitioned from the longtime webmaster, Annette Henry, to myself and a part-time web consultant in Glacier WA managing the website. A huge thanks to Annette for her many years of cheerful service to the PSG and keeping the website updated. I assumed the responsibilities of Interim Website Coordinator and hired an interim webmaster to update the website (budget \$2,000, including \$750 to create the listserv – see Listserv report). Main website activities in 2015 included: annual meeting page created for 2016 PSG in Hawaii; Conservation Committee grantee information; Conservation Letters posted; New Policies and Procedures posted; EXCO meeting minutes posted; listserv subscription information updated; Awards page updated; new job postings.

- Conservation Letters. Provided review and input for all letters drafted by the Vice-Chair for Conservation.

2. Chair – Awards Committee

Call for nominations were sent to the PSG list serve beginning in June, with a deadline of 15 August. Two Lifetime and two Special Achievement Awards will be given at the 2016 meeting. There were four nominations for the Lifetime award, and two for the Special Achievement Award. The Awards Chair worked closely with Kim Rivera and the Former Chairs on all four of the nominations.

For the next Past Chair, here is a list of items needed for LAA and SAA: (1) written nomination and contact information for nominator; (2) bios and pictures of nominee for the meeting program; (3) determine financial travel assistance needed for awardee to attend PSG; (4) book hotel and/or airfare for awardee, as required; (5) plenary presentation for LAA awardee in scientific program; (6) plenary title and abstract for scientific program; (7) registration and banquet ticket(s) selected on Regonline and then adjusted

so no balance owing; (8) confirm the individual to present the award at the banquet; (9) secure 2,000 word write up for Pacific Seabirds.

3. Travel Awards

PSG received 29 applications for travel awards – 20 students (17 USA/Canada and 3 nonUSA/Canada; 9 scientists). Travel awards were competitive for PSG 2016 and the Past Chair developed a scoring rubric and score applications, with input from the Chair and Chair-Elect. The budget was \$4,900 for students (\$2,900 from Silent Auction and \$2,000 from General Funds; \$2,500 for scientists from General Funds). The awards were given to 8 USA/Canada students, 1 non-US/Canada student and 6 foreign scientists. Awards ranged from \$250 – 750 USD. All US citizens that were awarded \$600 or more were required to complete a W-9.

Recommendations for 2016: Inform applicants how they will be scored especially that incomplete applications won't be considered and oral presentations are preferred. Information that is needed to rank applicants: estimated travel costs, other funding available to the applicant, attended PSG before (yes/no), presented at PSG (yes/no), oral presentations rank higher than poster, their efforts to share or reduce costs (e.g., room sharing, volunteering).

4. Organising student paper judging

Via RegOnline, 58 members volunteered to judge student papers. All were contacted and asked to confirm their availability and interest the week of January 11-15, 2016. In all, 24 volunteers will judge student papers. David Craig is helping to revise the scoring sheet so that the bottom can be cut off and feedback provided to the students about their presentation.

5. Coordinate with the Chair-Elect and LOCO Chair to make sure the annual meeting runs smoothly, budget and registration fees are accurate and appropriate

Past Chair assisted with the following items for the 2016 Annual Meeting: review budget and registration fees;

review hotel contract; develop website posts and announcements and update website, building annual meeting page with website designer; PSG listserv and Facebook posts; work with student representative to secure sponsorship for student-mentor session.

6. Bring to EXCO meeting information on the location of the next Annual Meeting, the proposed site of the meeting held in two years, and choice of two or three sites to be held in three years

The 2017 annual meeting discussion is still in progress and a decision has not been made by a local committee to proceed. There are two good options – Tacoma and Portland. Ideas for 2018 Annual Meeting – IOCongress Vancouver 2018 (Aug 2018) and/or Portland or La Paz. Ideas for 2019 Annual Meeting – La Paz or Portland

Conclusion and Recommendations

Reiterating from my 2015 Chair's report, according to the 2013 Board Training in Portland, a Board has three main responsibilities: 1) Establish Direction; 2) Ensure Resources and 3) Provide Oversight. The EXCO certainly provides oversight of all the society's business but it also does most of the operational work, leaving virtually no time to 1) Establish Direction or 2) Ensure Resources.

I will repeat my top recommendations from last year, which are elaborated on in the 2015 Chair's report.

1. Review EXCO governance structure and process for making decisions.

2. Develop a Strategic Plan. Set a goal for a 2020 Strategic Plan.

3. Generate financial resources.

4. Create an Annual Meeting Committee, as per the handbook instructions.

In addition, I think it would be good to not only update the Handbook but also break it into discrete sections so that information can be more easily found than in a 100+ pages, and individual sections can be linked to particular volunteer positions more clearly. The process of updating information might be more manageable also.

VICE-CHAIR FOR CONSERVATION'S REPORT FOR 2015

Stanley Senner

The following formal conservation communications were sent on behalf of the Pacific Seabird Group in 2015:

PSG encouraged the Japan Minister of the Environment to continue to invest in the improvement and restoration of critical seabird breeding habitat within Japan's waters (November 2015). At the 2014 International Ornithological Congress, held in Japan, a special discussion was convened on "Restoring Seabird Breeding Colonies Invaded by Rats and Other Introduced Mammals in Japan and Korea" (Pacific Seabird Group and Japan Seabird Group 2014). PSG wrote to the Minister of the Environment in Japan to express appreciation for the efforts of Japan to conserve its seabirds and to offer support and assistance for continued investment and improvement in restoring critical seabird breeding habitats within Japan's waters.

PSG commented on U.S. Fish and Wildlife Service proposed ruling for Marbled Murrelet Critical Habitat (October 2015). PSG wrote to the U.S. Fish and Wildlife Service in response to its proposed rule regarding critical habitat designations for Marbled Murrelets in the Pacific Northwest. The Service had proposed maintaining the existing designations (i.e., no roll back). PSG supported that action but also suggested that additional critical areas on federal and state lands as well as in the marine environment be designated. The letter to the U.S. Fish and Wildlife Service can be found at this link: <http://pacificseabirdgroup.org/policy/>

[PSGletter2015_10_21.pdf](http://pacificseabirdgroup.org/policy/PSGletter2015_10_21.pdf).

PSG commented on Bureau of Land Management draft Western Oregon Resource Management Plan (August 2015). PSG wrote to the U.S. Bureau of Land Management regarding its draft Western Oregon Resource Management Plan and expressed opposition to the preferred alternative, which would eliminate late-successional forest reserves and increase logging and fragmentation of older-aged forests, which are essential to the long-term recovery of Marbled Murrelets. Minimizing fragmentation adjacent to suitable and occupied habitat is critical to the recovery of murrelets, which are federally listed as a threatened species in northern California and the Pacific Northwest. The letter to the Bureau of Land Management can be found at this link: <http://pacificseabirdgroup.org/policy/>

PSG responded to U.S. Fish and Wildlife Service request for "scoping" comments on proposed incidental take permit system under Migratory Bird Treaty Act (July 2015). The Ornithological Council, acting on behalf of its member organizations, including PSG, provided scoping comments to the U.S. Fish and Wildlife Service regarding a possible permit program for the incidental take of migratory birds, primarily by industries such as wind power and electrical utilities. The Ornithological Council letter discussed the need for enhanced monitoring and research in order to effectively manage an incidental take permit program and raised questions about the Service's

ability to administer an incidental take permit program without impacting ongoing activities, such as permits for scientific purposes. The letter to U.S. Fish and Wildlife Service can be found at this link: <http://pacificseabirdgroup.org/policy/>

PSG asked the Secretary of Agriculture to end clearcut logging of old-growth forests in the Tongass National Forest, Alaska (January 2015)

PSG joined six other scientific societies, including the American Ornithologists' Union, in asking the Secretary of Agriculture to accelerate the transition away from logging old-growth forest in the Tongass National Forest in Alaska. The Tongass has high densities of nesting Marbled Murrelets, Northern Goshawks and other birds and wildlife, and is the only national forest in the United States in which clearcut logging is still allowed. The letter to the U.S. Department of Agriculture can be found at this link: http://pacificseabirdgroup.org/policy/TongassSocietyLetter_2015_01.pdf.

Updates on Ongoing and Past Conservation Issues. In spring 2015, the U.S. Army Corps of Engineers and cooperating agencies initiated a program of lethal control of Double-crested Cormorants at East Sand Island in the Columbia River Estuary, Oregon. PSG had previously, and continued to, oppose this action as premature, not supported by the science, and too harmful to the western North America population of Double-crested Cormorants.

TREASURER'S REPORT FOR 2015

Christine Ogura and Martin Renner

Our Fiscal Year (FY) 2016 ran from 1 October 2015 to 30 September 2016. The FY 2016 budget was approved by the Executive Council on 10 February 2016.

The FY15 budget was approved by the Executive Council on December 17, 2014. We are financially sound, having made a net income of \$11,078. The FY15 budget has been re-organized and re-formatted differently from previous years in order to increase easier understanding of the budget and identification of major income/expense categories. A complete summary of financial accounts (incomes and expenditures) is provided below.

REPORTS OF PSG OFFICERS

FY16 ACTUAL INCOMES AND EXPENDITURES

Financial Accounts

PSG maintains a number of accounts to keep the organization operating to fulfill its mission. The operating funds are kept in a regular checking account and are unrestricted. PSG policy requires 3 years' worth of operating funds be kept in the checking account.

REGULAR CHECKING ACCOUNT

September 30, 2011	\$102,079.24
September 30, 2012	\$88,173.87
September 30, 2013	\$79,506.16
September 30, 2014	\$50,663.75
September 30, 2015	\$68,154.50
September 30, 2016	\$51,164.86

ENDOWMENT FUND

Our Endowment funds are kept in a mutual fund managed by Neuberger and Berman and are restricted funds.

September 30, 2011	\$119,879.53
September 30, 2012	\$146,197.30
September 30, 2013	\$180,320.39
September 30, 2014	\$206,824.23
September 30, 2015	\$181,268.22
September 30, 2016	\$200,190.51

PAYPAL

A PayPal account is used to accept membership dues, annual meeting registration, donations, and publication subscriptions by credit card, but are part of the general fund.

September 30, 2011	\$15,100.28
September 30, 2012	\$5,882.93
September 30, 2013	\$7,132.73
September 30, 2014	\$2,555.26
September 30, 2015	\$8,072.97
September 30, 2016	\$10,560.16

STUDENT AWARD

Student travel awards are kept in a savings account and are restricted funds.

September 30, 2013	\$5,216.24
September 30, 2014	\$2,784.99
September 30, 2015	\$2,906.21
September 30, 2016	\$3,094.55

CRAIG HARRISON CONSERVATION FUND

The Conservation fund is kept in a savings account and are restricted funds.

September 30, 2013	\$12,346.95
September 30, 2014	\$3,342.88
September 30, 2015	\$6,507.23
September 30, 2016	\$7,235.43

Total Assets as of September 30, 2015	\$266,909.13
Total Assets as of September 30, 2016	\$272,245.50

REPORTS OF PSG OFFICERS

FY16 ACTUAL INCOMES AND EXPENDITURES

A. INCOME	Budgeted	Actual (as of 9.30.16)	Surplus/-Loss
<i>Unrestricted:</i>			
Membership (annual regular, student, and life): ¹	\$11,645.00	\$10,843.00	-\$802.00
General Fund Donations	\$793.47	\$13,290.00	\$12,496.53
Annual Meeting: Turtle Bay Oahu 2016			
Registration fees	\$107,533.00	\$87,807.00	-\$19,726.00
Student travel (<i>Restricted</i>)	\$2,900.00	\$2,756.00	-\$144.00
<i>Restricted:</i>			
Publications: Endowment capital gains	\$0.00	\$1,452.00	\$1,452.00
Marine Ornithology ²	\$6,000.00	\$0.00	-\$6,000.00
Pacific Seabirds ³	\$3,000.00	\$0.00	-\$3,000.00
A. TOTAL INCOME:	\$131,871.47	\$116,148.00	-\$15,723.47
B. EXPENSES: Administrative Operations	Budgeted	Actual (as of 9.30.16)	Underspent/ -Overspent
Chairs Discretionary Fund ⁴	\$2,000.00	\$2,000.00	\$0.00
Insurance premium ⁵	\$2,300.00	\$1,400.00	\$900.00
<i>Online Services:</i>			
Website/Email hosting ⁶	\$235.00	\$51.75	\$183.25
List Serve ⁷	\$569.81	\$299.88	\$269.93
Survey Monkey	\$300.00	\$300.00	\$0.00
QuickBooks online ⁸	\$120.00	\$62.67	\$57.33
Website transition services (Anne Francis) ⁹	\$1,360.00	\$5,392.50	-\$4,032.50
<i>Operations:</i>			
Postage	\$50.00	\$0.00	\$50.00
Telephone	\$700.00	\$69.04	\$630.96
Office supplies	\$30.00	\$0.00	\$30.00
USPS PO Box Rental	\$102.00	\$0.00	\$102.00
<i>Professional services:</i>			
Accountant ¹⁰	\$2,000.00	\$2,000.00	\$0.00
Bookkeeper ¹¹	\$3,000.00	\$4,181.67	-\$1,181.67
<i>Service fees:</i>			
PayPal Fee	\$700.00	\$360.00	\$340.00
RegOnline Fee (membership, annual meeting, donations, and related credit card transaction processing for these actions) ¹²	\$1,065.00	\$153.26	\$911.74
Bank Fees	\$239.40	\$104.97	\$134.43
Government Registration Fees	\$50.00	\$50.00	\$0.00
B. TOTAL ADMINISTRATIVE OPERATIONS EXPENSES:¹³	\$14,821.21	\$16,425.74	-\$1,604.53

REPORTS OF PSG OFFICERS

FY16 ACTUAL INCOMES AND EXPENDITURES

C. EXPENSES: Society Services (meetings, publications, support)	Budgeted	Actual (as of 9.30.16)	Underspent/-Overspent
Annual Meeting: Turtle Bay Oahu 2016			
Conference venue, food, etc.	\$99,558.21	\$86,399.00	\$13,159.21
Student travel	\$2,900.00	\$1,850.00	\$1,050.00
Student travel awards (augmented from PSG General Fund)	\$2,000.00	\$0.00	\$2,000.00
Foreign scientist travel (non-US/Canadian)	\$2,500.00	\$2,282.75	\$217.25
Dues and Subscriptions:			
Ornithological Council ¹⁴	\$2,120.00	\$2,060.00	\$60.00
Publications:			
Marine Ornithology (layout, printing, mailings)	\$6,120.00	\$6,260.00	-\$260.00
Pacific Seabirds (layout, editor, website)	\$3,000.00	\$1,300.00	\$1,700.00
27th IOC Vancouver 2018 sponsorship ¹⁵	\$1,000.00	\$0.00	\$1,000.00
C. TOTAL SOCIETY SERVICES EXPENSES:	\$119,078.21	\$100,151.75	\$18,926.46
D. PSG BUDGET SUMMARY			
TOTAL INCOME (A)	\$131,871.47	\$116,148.00	\$15,723.47
TOTAL EXPENSES (B + C)	\$133,899.42	\$116,577.49	\$17,321.93
RESULT: SURPLUS/(LOSS)	\$2,027.95	\$429.49	-\$1,598.46

¹ Budgeted amount identified was based on CY2014 (omits 2014 membership renewal glitch)

² Funding for publications is derived from both the endowment and subscriptions. Note the \$6k in the actual column is for FY15 allocation (which had not been used yet, so it is a rollover)

³ Funding for publications is derived from the endowment

⁴ Outreach banner identified for \$1,500 of \$2k, item rolled over from previous year. Funds used to design new PSG logo

⁵ For 2018, \$792.30 will need to be added to the budget to renew the CNA insurance for the board (paid every 3 years, started in 2015).

⁶ Paid every two years so next payment is in 2016 for server. Domain registration paid for next 5 years so the next payment is 2020 (\$235); includes logo and website transition services

⁷ Updated costs post budget passage: Software is paid for the next 5 years so next payment is 2019. Web hosting is \$29.99/month. Annual maintenance fee: \$500, annual host server \$202.

⁸ Updated costs post budget passage: \$20.89 first year and \$39.95 after 12/11/16

⁹ Carried over from FY2015 (funds still left to expend out of total \$2k approved in FY15). Note: Additional work was required and went above approved initial \$2k. Overage was identified at the 2/10/16 EXCO annual meeting to be paid out of Chair's discretionary fund.

¹⁰ An additional \$1,000 to the originally approved \$1,000 was approved by EXCO at the 2/10/16 annual meeting to be added

¹¹ An additional \$1,500 to the originally approved \$1,500 was approved by EXCO at the 2/10/16 annual meeting to be added

¹² \$3.55 fee per registrant per event (so fee varies with usage. Main registrations are membership and annual meeting). We also use RegOnline to process credit card transactions for these events. Therefore, the fees associated for this are 4.95% every transaction (but unlike PayPal, no monthly fee). This switch from PayPal to RegOnline for our credit card transactions was done at the beginning of FY2016 so the approved budgeted amount for fees will likely be higher as we had no data to generate estimates for this cost from FY15.

¹³ This is the amount for PSG's operating expenses

¹⁴ Adjusted every year by 3% for inflation (automatic inflation adjustment ends in FY16 so ExCo will need to revisit this and vote to continue or not the inflation adjustment)

¹⁵ One-off expense that should be repaid in 2018

REPORTS TO PSG EXECUTIVE COUNCIL FOR 2015-2016

PSG's committees support research, work on conservation, maintain communications, and support members throughout the Pacific. Their reports contain information on field work, current issues, and committee participation. Contact information for committee coordinators (i.e. chairs) can be found near the back of this issue.

NORTHEAST ASIA SEABIRD CONSERVATION COMMITTEE

**Kim Nelson and Kuniko Otsuki,
Coordinators**

The mandate of the Northeast Asia Seabird Conservation Committee (NEASCC, formerly the Japanese and Korean Seabird Conservation Committee) is to "Summarize and follow progress of seabird conservation issues in Japan and Korea, encourage international collaboration between scientists on certain projects, and provide information to PSG and other parties. Below, we summarize NEASCC activities in 2015 that have been provided by committee members:

MEETINGS

We met at the 2015 PSG meeting in San Jose to discuss recent research, bycatch issues, and rat and cat eradication in Korea and Japan. We also decided on a final name change for this committee. It will now be called the Northeast Asia Seabird Conservation Committee (NEASCC) and the new coordinators, effective immediately, are Gregg Howald (gregg.howald@islandconservation.org) and Daisuke Ochi (otthii@affrc.go.jp).

SURVEYS AND RESEARCH

Teuri Island, Japan: Shin Matsui (Hokkaido Seabird Center) reported on the status of the Common Murre (*Uria aalge*) at Teuri Island, Japan (about 30 km west of the north end of the island of Hokkaido), where the only remnant breeding colony of the species remains. Only a few birds exist at this colony which held about 8,000 murres in 1963. Since 2003, the Japan Ministry of the Environment has used a social attraction system, including murre decoys and a

sound system playing recorded murre calls, to attract and encourage Common Murres to continue breeding on Teuri Island. We also have monitored murre activity and breeding success at the site. Since 2009, Common Murres have bred on the island only in a shallow cave set within a cliff adjacent to a small seastack known as Akaiwa Rock. In 2015, fifty-two decoys were set inside the cave to attract Common Murres, and the sound system broadcasting murre calls was installed 20 m below the cave. They monitored murre behavior and breeding success inside the cave using two remote CCD cameras from April to August. Ten fledglings were produced from 14 eggs in 2015. With a similar breeding effort in the five-year period of 2011 to 2015, between 7 and 11 Common Murre chicks have fledged from the cave every year. Gerry McChesney (U.S. Fish and Wildlife Service) is reviewing a draft of the final report from this project.

Shin Matsui also reported with Makoto Hasebe (Hokkaido Seabird Center, 2012-2014), and Darrell Whitworth (California Institute of Environmental Studies) on the status of the Ancient Murrelet (*Synthliboramphus antiquus*) colony at Teuri Island. At-sea spotlight surveys (Whitworth and Carter 2014) and night-lighting captures (Whitworth et al. 1997) were conducted over 5 nights between 7 June and 18 June 2015. Nocturnal spotlight surveys provide the only practical method for assessing the size of the Ancient Murrelet population at Teuri because: (1) murrelets nest only on inaccessible steep cliffs on the west side of the island, and (2) dusk surveys of murrelets congregating offshore are not possible due to the tens of thousands of Rhinoceros Auklets (*Cerorhinca monocerata*) which also gather offshore at dusk. Spotlight surveys were conducted on transects

located 300, 600, 900 and 1200 m from shore. Counts on the combined 300-600 m spotlight surveys ranged from 72 to 299 murrelets ($\bar{x} = 172 \pm 82$; $n = 5$), while 130 murrelets were counted during the single spotlight survey on the combined 900-1200 transects. The annual maximum count on the 300-600 m survey in 2015 (299 murrelets) was 30-86% higher than the annual maximum counts in 2012-2014 (range = 161-208 murrelets; M. Hasebe, unpubl. data). Five murrelets were captured and banded over two nights at Teuri in 2015; three of them had brood patches. Murrelet chicks departing the colony with parents were not seen or heard during at-sea spotlight surveys or nocturnal surveys on foot in a shoreline area where chicks had been observed in 2012-2014 (M. Hasebe, unpubl. data). The Ancient Murrelet colony at Teuri probably numbers between 100 and 500 breeding pairs, but more surveys and detailed analysis of 2012-2105 data is needed to refine this estimate.

Chilbal-do, Republic of Korea: Chang-uk Park (National Park Research Institute Migratory Birds Center [NPRIMBC]) reported that the breeding status of Ancient Murrelets (*Synthliboramphus antiquus*) was examined at Chilbal-do Islet (southwestern part of Korea and part of Dadohae-haesang National Park) in 2014. Chilbal-do is the largest known colony of Ancient Murrelets in Korea and consists of about 2,500 breeding birds. NPRIMBC marked the area the Ancient Murrelets use during their breeding season in order to provide long-term preservation and help in designating a marine protected area. They attached five GPS loggers (ECOTONE®, Alle EP-3.4GPS with radio download, Poland) to five incubating adults in March 2014, and were successful in obtaining 17 hours of

REPORTS TO PSG EXECUTIVE COUNCIL FOR 2015-2016

tracking data from one individual. The murrelet left the breeding colony and traveled about 30 km northwest before returning back to the colony. Although the GPS logger return rate was very low and tracking time was short, this was the first study in Korea to determine Ancient Murrelet movements and will be useful in future conservation efforts. This information was supposed to be included in our last JSCC report. This report was translated by Kyungsun Seo (Rikkyo University) and Kuniko Otsuki (Marine Bird Restoration Group); Kim Nelson (Oregon State University) is reviewing a draft of the final report from this project.

INTERNATIONAL SYMPOSIA AND WORKSHOPS

At the 5th International Wildlife Management Conference in Sapporo, Japan, on 26-30 July 2015, a symposium on “Conservation of Breeding Seabirds on Islands: Control of Predators and Social Attraction” was organized by Yutaka Watanuki. Presenters included Yutaka Watanuki, Dan Roby, Yasunori Takenaka, Alex Wegmann, and Takuma Hashimoto. Among 340 species of seabirds, about 20% are included in the IUCN Red List. Seabirds breed mainly on offshore islands where terrestrial predators were historically absent, so many seabirds are especially vulnerable to introduced predators. Introduced rats and cats have been known to cause substantial damage to island ecosystems, including the extinction of some endemic species of breeding seabirds. Since the 1980s rat eradication programs to restore island ecosystems have been conducted in the U.S., New Zealand, and other nations. To facilitate seabird population recovery, social attraction techniques have sometimes been implemented simultaneously. In Japan, rat eradication and social attraction programs are now being implemented at several seabird colonies. In this symposium, the status, potential threats, and conservation efforts at seabird colonies in Japan were summarized. The rationale for using

predator control and social attraction at seabird colonies, as well as the efficiencies and challenges associated with these two methodologies were discussed.

A symposium on “Feral Cat Issues on Island Ecosystems” also took place at the 5th International Wildlife Management Congress in Sapporo, Hokkaido. Organizers were Kazumi Shionosaki, Takashi Nagamine, Fumio Yamada, Nobuo Ishii, and Naoto Yasuda. Speakers included Kazumi Shionosaki, Steve Hess, Nariko Oka, Tatsuro Sasaki, Yasunori Takenaka, Sugoto Roy, and Takashi Nagamine.

At the World Seabird Conference in Cape Town, South Africa, in 26-30 October 2015, a paper was presented on “Cooperative Planning Efforts to Eradicate and Control Introduced Mammals on Seabird Breeding Islands in Japan and the Republic of Korea” by Kim Nelson, Kuniko Otsuki, Takuma Hashimoto, Nariko Oka, Masayoshi Takeishi, Young-Soo Kwon and Gregg Howald.

LITERATURE CITED

Whitworth, D.W. and H.R. Carter. 2014. Nocturnal spotlight surveys for monitoring Scripps's Murrelets in at-sea congregations at Anacapa Island, California. *Monographs of the Western North American Naturalist* 7:306–320.
Whitworth, D.L., J.Y. Takekawa, H.R. Carter, and W.R. McIver. 1997. A night-lighting technique for at-sea capture of Xantus' Murrelets. *Colonial Waterbirds* 20:525–531.

KITTLITZ'S MURRELET TECHNICAL COMMITTEE

Sara Schoen, Coordinator

The Kittlitz's Murrelet Technical Committee (KMTC) was formed in 2008 to begin addressing concerns related to the status and conservation of this rare seabird. In 2004, the U.S. Fish and Wildlife Service (USFWS) included the Kittlitz's Murrelet (KIMU) as a new

candidate species for listing under the Endangered Species Act. The KIMU remained on the candidate list until 2013, when the USFWS announced a 12-month Finding that listing the KIMU was not warranted at that time. Research activities have diminished greatly since the Finding of 2013, and there has been little to no correspondence by members of the KMTC on research or conservation issues in 2015, and no official PSG activities (e.g., workshops, letters of concern, etc.). Attendance by KMTC members at the Turtle Bay meeting was expected to be low, so there was no KMTC meeting scheduled. However, several presentations on Kittlitz's Murrelet were given during the symposium on rare and threatened Pacific alcids, and KMTC members met informally during and between these sessions. Proceedings from the symposium will be published, offering a venue to provide updates on the status, trends and ecology of Kittlitz's murrelets in the North Pacific. For more information, contact Sarah Schoen (907-786-7467) or John Piatt (360-774-0516).

SCRIPPS'S MURRELET AND GUADALUPE MURRELET TECHNICAL COMMITTEE

Shaye Wolf and Harry Carter, Coordinators

In 2012, the American Ornithologists' Union split Xantus's Murrelet into Scripps's Murrelet (*Synthliboramphus scrippsi*) and Guadalupe Murrelet (*S. hypoleucus*), based on genetic separation. Both species are being considered for listing by the U.S. Fish and Wildlife Service (see below). The mandate of the Scripps's Murrelet and Guadalupe Murrelet Technical Committee (SMGMTC; formerly the Xantus's Murrelet Technical Committee) is to “monitor the federal listing petition, state status, research, and conservation issues; provide information to interested parties; and coordinate research and

REPORTS TO PSG EXECUTIVE COUNCIL FOR 2015-2016

conservation in the U.S., Mexico, and Canada.” The Scripps’s Murrelet occurs at sea along western Baja California, California, Oregon, Washington, and south-central British Columbia; it breeds on islands off southern California and northwestern Baja California. The Guadalupe Murrelet also occurs at sea along western Baja California, California, Oregon, Washington, and south-central British Columbia; but it breeds mainly at Guadalupe Island, with smaller numbers at the San Benito Islands and a few at some other islands as far north as Santa Barbara Island. Below, we summarize SMGMTC activities in 2015:

MEETINGS

The SMGMTC had a productive meeting at the February 2015 PSG Annual Meeting in San Jose. Committee members provided updates on ongoing monitoring, research, restoration, and conservation activities, and discussed priority actions for Scripps’s Murrelet and Guadalupe Murrelet that will be incorporated into the revised management and restoration plan (see below) when produced.

MANAGEMENT AND RESTORATION PLAN

In 2015, the SMGMTC updated the Murrelet Management and Restoration Plan that will guide state and federal efforts to protect and restore Scripps’s and Guadalupe murrelets at breeding islands in southern California and northwestern Baja California. The draft plan was completed in 2011. Various revisions have been underway for over a year but more work is needed to develop a complete revised draft that will be circulated to all committee members and management agencies for comments in fall 2016. The plan will be finalized in 2017.

LISTING STATUS

In the USFWS Candidate Notice of Review published in December 2015, Xantus’s Murrelet (as referred to in the original listing petition) retained a

listing priority number of 5. USFWS is conducting a status review of both new species and, by 30 September 2016, will submit to the Federal Register one of two possible actions: (1) a proposed rule for listing as threatened or endangered; or (2) a finding that listing is not warranted. Coordinators and other key members of the SMGMTC have been aiding the status review process by: (1) continuing to provide updated information to better assess current status, threats, and conservation of the Scripps’s and Guadalupe murrelet in the U.S. and Mexico; (2) revising the Management and Restoration Plan described above; (3) conducting specific research and monitoring projects to fill important gaps in knowledge of status and trends at certain U.S. and Mexico colonies; and (4) preparing key summary papers on SCMU and GUMU for presentation at the rare Alcid symposium at the February 2016 PSG meeting.

The State of California officially listed the Xantus’s Murrelet as Threatened in December 2004. However, there is still no recovery plan or implementation schedule. Xantus’s Murrelets are listed as Endangered in Mexico; the species is not listed in Canada. None of these designations have been changed since Xantus’s Murrelet was officially split into Scripps’s Murrelet and Guadalupe Murrelet.

NEST MONITORING AND SURVEYS

In 2015, nest monitoring of Scripps’s Murrelets to measure hatching success, timing of breeding, and changes in population size was conducted at Santa Barbara Island by the California Institute of Environmental Studies (CIES: Howard et al.) and Channel Islands National Park (CINP: Mazurkiewicz), with funding from the Montrose Settlements Trustee Council (MSTC). CIES (Whitworth, Carter and Parker) also monitored: (1) Scripps’s and Guadalupe Murrelets (nest monitoring, spotlight surveys, and at-sea captures) at San Clemente Island, with funding from the U.S. Navy (USN); and (2) Scripps’s

Murrelets (spotlight and nest surveys) at San Miguel Island, with funding from the National Fish and Wildlife Foundation (NFWF). The Catalina Island Conservancy (Dvorak) and CIES (Whitworth) monitored Scripps’s Murrelets (nest monitoring and spotlight surveys) at Santa Catalina Island. The U.S. Geological Survey (Adams et al.) conducted surveys for Scripps’s Murrelets at San Nicolas Island, with funding from the USN.

Conservación de Islas (CI) continued monitoring activities for Scripps’s Murrelet on Coronado and Todos Santos islands and Guadalupe Murrelet on Guadalupe Island, including a census of active nests, spotlight surveys, and estimates of hatching success on Guadalupe and Todos Santos islands, and searches for active nests and spotlights surveys on Coronado, with funding from the Luckenbach Trustee Council and MSTC.

RESTORATION

Santa Barbara Island: Native plant restoration by CIES/CINP (funded by MSTC) continued on Santa Barbara Island. In 2015, ~4,500 plants were planted in the Northeast Flats restoration plot and a 0.5 acre seed farm was established on island. In total, between 2007 and 2015 approximately 30,000 native plants were grown on-island and outplanted across 10 acres.

Coronado, Todos Santos, and Guadalupe Islands: In 2015, CI continued restoration activities for Scripps’s Murrelet on Coronado and Todos Santos islands and Guadalupe Murrelet on Guadalupe Island including non-native weed removal, reduction of human disturbance, installing nest boxes, and environmental education and outreach.

RESEARCH

Sarah Thomsen (Simon Fraser University) is finalizing her PhD research on Scripps’s Murrelet with the following research aims: 1) investigate how Barn Owl predation on murrelets varies with the availability of rodent prey and with

REPORTS TO PSG EXECUTIVE COUNCIL FOR 2015-2016

space use of owls, 2) examine how egg predation by mice is influenced by both the terrestrial (bottom-up effects on the availability of alternative foods for mice as well as top down effects of owls on mouse foraging behavior) and marine environments (e.g., ocean productivity), and 3) develop models that evaluate the effects of predation on murrelets to help inform murrelet conservation efforts. She is also examining stable isotopes (C and N) and CORT concentrations in murrelet feathers to look at whether murrelet diets tracked prey availability mediated by ocean climate conditions.

CONSERVATION ISSUES

Introduced Mammals: CI is working with local fishing communities to enforce measures to prevent re-introduction of non-native species on nesting islands in Baja California. On Guadalupe Island, CI continued biosecurity actions and feral cat control, and built a feral cat exclusion fence in the southern part of the island. CINP and the USN are discussing efforts to prevent movements of introduced Black Rats (*Rattus rattus*) from San Miguel Island to Prince Island. At San Clemente Island, the Institute for Wildlife Studies has been protecting murrelet breeding areas from Black Rats using poison and cats are being controlled through removals, with funding from the USN.

MARBLED MURRELET TECHNICAL COMMITTEE

**Peter Harrison and Kim Nelson,
Coordinators**

The Marbled Murrelet Technical Committee (MMTC) was created in 1986. It has been a longstanding committee of the Pacific Seabird Group. Its roles are to: (1) act as a technical authority about the status, distribution, and life history of the Marbled Murrelet (*Brachyramphus marmoratus*); (2) encourage, facilitate, and identify research needs; (3) address conservation problems related to the Marbled Murrelet; and (4) act as a liaison between

research and management.

MMTC ACTIVITIES AND ACCOMPLISHMENTS IN 2015

The MMTC met at the Annual Pacific Seabird Group Meeting in San Jose, California on 18 February 2015. The MMTC Inland Survey Protocol Subcommittee (ISP) is continuing work on revisions to the 2003 survey protocol. Peter Harrison, Washington Department of Natural Resources, is coordinator of this subcommittee. To meet the requests of many MMTC members and various users of the survey protocol, a well-represented group of stakeholders is participating in the process. A thorough revision of the existing protocol is underway. A desired outcome of this revision is a protocol document reorganized in a manner that will make it easier for users of the protocol to understand “how to” conduct marbled murrelet audio-visual surveys. An accompanying document will be produced that will further recommend conservation actions that land managers should consider when dealing with murrelet habitat and occupied sites.

A revised protocol is expected to be released in summer 2016 for implementation in the 2017 survey season. The U.S. Fish and Wildlife Service provided funding to Kim Nelson at Oregon State University to coordinate the reanalysis of the probability of occurrence for the survey protocol. Darryl MacKenzie with Proteus Wildlife Research Consultants in New Zealand is conducting the analysis.

The Marine Subcommittee, led by Amilee Wilson, NOAA Fisheries West Coast Region, is continuing their work on technical reports for the first four marbled murrelet marine priorities identified in late 2014: (1) Marbled Murrelet bycatch in fisheries; (2) identification of important marine areas; (3) prey resources; and (4) oil mortality. The oil mortality report is anticipated to be completed in 2016 with completion of the other reports anticipated in 2017.

IMPORTANT UPDATES

(1) Expect a revised Marbled Murrelet Inland Survey Protocol in summer 2016 for implementation in the 2017 survey season. (2) See the Regional Reports for Washington and Oregon to find the latest information on Marbled Murrelet populations and trends in the Pacific Northwest. (3) December 2016, completion of the first MMTC Marine Subcommittee report on oil mortality for the Pacific Coast (will include information from Alaska, Washington, Oregon, California, and Canada).

ALEUTIAN TERN TECHNICAL COMMITTEE

**Susan Oehlers and Mike Goldstein,
Coordinators**

During the 2016 PSG Annual meeting, the Aleutian Tern (*Onychoprion aleuticus*, ALTE) Working Group was formalized as a PSG Technical Committee, with co-coordinators Susan Oehlers (U.S. Forest Service, Tongass National Forest, Yakutat Ranger District) and Mike Goldstein (U.S. Forest Service, Alaska Region). This group includes members from multiple government organizations (including U.S. Forest Service, U.S. Fish and Wildlife Service, Alaska Department of Fish and Game, and National Park Service), universities, and national and international non-government organizations (including National Fish and Wildlife Foundation, Bird Life International), as well as independent researchers. Objectives of this group include; 1) expansion of the committee to include additional resource management agencies including those with marine and coastal jurisdiction, federal research agencies, and additional non-government organizations and international partners, 2) international networking with resource professionals, academic researchers, and local ornithological groups in other countries within the species range, and 3) production of a peer reviewed publication or white paper summarizing current available information on ALTE.

REPORTS TO PSG EXECUTIVE COUNCIL FOR 2015-2016

Prior to formation of the PSG committee, the working group developed a conservation synthesis for ALTE, entitled Summary of Information Needs and Research Priorities for Aleutian Tern Conservation (November 24, 2015). A sub-group of committee members expanded on this effort and further developed a draft research and monitoring proposal, with the overall goal to develop methods that address key challenges to studying ALTE and evaluate potential causes for the decline in Alaska. Members of this sub-group also convened in Yakutat in July to further collaborate and conduct site visits to the Yakutat area colonies. This draft proposal is a highly valuable tool as we continue to build interest and partner support and pursue research and monitoring funding for ALTE.

While continuing to refine information, conservation, and research needs for ALTE, committee members and their colleagues have continued to pursue research, monitoring, and outreach as funding allows. The 6th Annual Yakutat Tern Festival was held on June 2-5, led by Susan Oehlers and Teresa Swanson (U.S. Forest Service) along with multiple partners and sponsors, with the primary purpose to build awareness of the importance of the Yakutat area tern colonies amongst local residents (including youth) and visitors. Susan Oehlers and Nate Catterson (U.S. Forest Service, Yakutat Ranger District), assisted by Kelly Nesvacil and Jon Barton (Alaska Department of Fish and Game), conducted population surveys of known Yakutat area tern colonies (including mixed Artic and Aleutian tern colonies), focusing surveys in June. Also in June, Jon Barton and Christine Schmale (Alaska Department of Fish and Game) conducted a site visit to Dillingham and Platinum to assess logistics for future ALTE work in the area, as well as document observations of ALTE Robin Corcoran (USFWS, Kodiak National Wildlife Refuge) surveyed known Kodiak area breeding colonies and monitored ALTE nests with remote cameras, and is

coordinating with Don Lyons (Oregon State University) on analyzing the photos for various parameters including nest attendance, vigilance, and nest survival rate.

As identified through a recent marking study (Goldstein et al. unpublished manuscript), the Aleutian tern winters, in part, in Indonesia. Mike Goldstein (U.S. Forest Service) and Sanjay Pyare (University of Alaska Southeast) went to Indonesia in September 2016 to begin building collaborative relationships with government, non-government, and university personnel, and to try and locate the species in areas where it has been seen by birders in recent years. Working with rangers from West Bali National Park, Goldstein and Pyare visited one site in southern Bali (Serangan Island) and two sites in west Bali (near Gilimanuck and Menjangan). Working with local birders from Burung Nusantara, they visited two sites on Java Island (Sunda Strait and Jakarta Bay). The U.S. Forest Service International Programs Asia Pacific Office co-sponsored this trip and participated with liaisons from both Washington DC (Eric Hoenig) and Jakarta (Harityas Wiyoga).

SEABIRD MONITORING COMMITTEE

Heather Renner and Robb Kaler

The Pacific Seabird Group's Seabird Monitoring Committee met in San Jose, CA, and discussed three main topics regarding seabird trends, monitoring and data management: (i) synthesize common patterns and identify conservation concerns based on regional reports; (ii) develop a common approach for a Pacific seabird colony census throughout the Pacific (California, Oregon, Washington, Alaska, Hawaii and Pacific Islands); and (iii) the future of Pacific seabird monitoring data management. Following the committee meeting, concerted efforts have made progress on all three topics discussed.

Seabirds of Conservation Concern – During the Seabird Monitoring Committee meeting, a round-robin

of reports compiled by PSG regional representatives highlighted several seabird species where population trends appeared to be in steady decline, including of Tufted Puffins and Aleutian Terns. Following the 2015 meeting, two Ad Hoc working groups formed (Tufted Puffin Working Group and Aleutian Tern Working Group) and have held several teleconferences to discuss the status of each species and future steps to elevate concern for population declines. A common point for both working groups was the need for coordinated study plans, and better monitoring methods. Both working groups are considering proposing to the PSG Executive Committee (EXCO) to create Technical Committees under the auspices of the PSG to help formalize leadership roles and responsibilities and garner PSG membership and support. Additionally, the Tufted Puffin Working Group has proposed holding a workshop to formulate study plans and monitoring methods.

Pacific Seabird Colony Recensus – Following the Monitoring Committee meeting, FWS seabird researchers and managers have continued to discuss the concern that “best current estimates” of abundance and breeding distributions of most Pacific seabirds is limited and often relies on historic data. The vast geographic area and large number of species and birds in Alaska and the tropical Pacific islands further confound these issues. To address these challenges, FWS is planning three workshops (1 – California, Oregon, Washington; 2 – Hawaii and tropical Pacific islands; and 3 – Alaska) to develop survey protocol frameworks to support consistent and comparable data on seabird breeding distribution and abundance. Furthermore, for Alaska and the tropical Pacific islands, FWS is planning a structured decision making approach to prioritize seabird colony recensus efforts. Workshops will be hosted in 2016 by the FWS, and invited participants will include state, federal, and non-governmental organizations and aimed at developing an integrated

REPORTS TO PSG EXECUTIVE COUNCIL FOR 2015-2016

Pacific seabird census strategy.

Pacific Seabird Monitoring Data Management – To improve communication within seabird scientific community across the Pacific, the PSG formed the Seabird Monitoring Committee in 1992. With monetary and technical support from the USGS Alaska Science Center, the committee developed the Pacific Seabird Monitoring Database (PSMD) to archive annual results from long-term seabird monitoring and information on seabird population dynamics. Unfortunately, USGS discontinued serving PSMD in 2013

and today only a few regional seabird databases attempt to meet the needs of storing raw data and making annual results available. These databases are critical for monitoring seabird trends, but currently lack a unifying vision or long-term support. To address these challenges, a dedicated group of FWS biologists and managers successfully garnered support for a Pacific seabird data manager. While funding support will be provided by FWS, seabird monitoring and data management in the Pacific includes both state, federal, and non-governmental partners, and

participation and engagement by PSG membership is integral to the success of these effort.

Much of the progress reported here is due to the determined efforts of many individuals. We especially thank Roberta Swift and Kevin Kilbride for their leadership and undaunted determination to promote the effective use of seabirds as indicators of local and large-scale change in the Pacific marine environment. We look forward to accomplishing more successes in 2016.

CRAIG S. HARRISON CONSERVATION FUND COMMITTEE

Verena Gill, Chair

This report covers January 2015 to January 2016. The members of this Committee are; Verena Gill (Chair), Craig Harrison, Bill Henry, Dave Duffy, Doug Forsell, Louise Blight, Mark Rauzon, Melanie Steinkamp, Scott Hall, and Shannon Fitzgerald.

As of 8 Jan 2016, the Fund total is \$7,133.24. We received six inquiries for funding; as of January 2016, two were still in the process of submitting a full proposal.

Table 1. List of inquiries and decisions for applications submitted January 2015-January 2016

DATE	APPLICANT	COUNTRY COVERED BY PROPOSAL	REQUEST	FIRST DECISION	SECOND DECISION	AMOUNT FUNDED
07/29/15	Matias Portflitt	Chile	Grant to study impacts of black rats on nesting seabirds	PSG requested a full application on 08/29/15	Waiting	?
1/06/16	Angela Braren	Peru	Constructing geographical niches for Peruvian skimmers to look at resources used on migration	Emailed 01/06/16 for student nationality	Waiting	?

Three final reports were delivered – see table below:

PERSON	COUNTRY COVERED BY PROPOSAL	REQUEST	AMOUNT FUNDED	REPORT SUBMITTED?
Shuihua Chen	China	Conservation of the critically endangered Chinese Crested Tern: Restoration of a lost breeding colony	\$2,000	Yes; received 09/14/15
Muhammad Iqbal	Indonesia	Seabird survey around Menui Island, southwest of Sulawesi (Celebes, Wallacea)	\$2,000	Yes; received 03/26/15
Rosana Paredes	Peru	Multi-species tracking of seabirds in a new Marine Protected Area in Peru	\$2,000	Yes; received 02/13/15

ELECTION COMMITTEE REPORT 2016 ELECTION

Alan E. Burger, Coordinator

The committee included: Alan Burger (Coordinator), Jane Dolliver (PSG Secretary), Ken Morgan, Kim Nelson and Mark Rauzon.

SURVEY MONKEY BALLOT

This system is working well, although it does take some training to figure out. There has been a separate ballot for each of the eight regions so that only members from a particular region vote for the rep from that region. For the next election, we might be able to combine those regions which do not have candidates being elected.

One minor glitch was that Survey Monkey reported that some members had incomplete ballots, but it seems they had actually voted but perhaps not clicked on the final exit button. We are not able to check each person's vote – that remain confidential, but we can see if they voted or not. A few members had invalid e-mails (often Life Members) – members should be encouraged to update their e-mails with their membership renewals, and some effort should be made to keep in touch with Life Members who do not need to renew each year.

2016 ELECTION RESULTS

As usual it was difficult to find good candidates for all the positions. Voting began 10 December 2015 and ended 10 January 2016. Notices were also sent on 10 December to all those who receive the PSG e-mail Listserv – this helped to locate a few members who had invalid e-mails and had not received the ballot. Reminders were sent to those who had not yet voted on 1 January 2016 and 8 January 2016. At the end of the 30-day vote period, a total of 213 of the 418 members had voted (51%).

Table 1. Pacific Seabird Group elections - January 2016

REGION	TOTAL MEMBERS	VOTED	%VOTED
Alaska/Russia	49	28	57
Canada	44	25	57
Washington/Oregon	81	42	52
Northern California	76	41	54
S. California/Hawaii/Latin America	68	28	41
Non-Pacific U.S.	45	19	52
Europe/Africa	22	15	68
Asia/Oceania	33	15	35
ALL REGIONS	418	213	51

The following is the outcome of the 2016 election, showing all the candidates and those elected:

POSITION	CANDIDATES (*elected in bold)		
Chair-elect	Kyra Mills*	Tom Van Pelt	
Treasurer	Martin Renner*	Liz Labunsk	
Student Representative	Chris Tyson*	Laura Bliss	Morgan Gilmor
Alaska/ Russia	Robb Kaler*	Robin Corcoran	
Asia/ Oceania	Kuniko Otsuki*	Fiona McDuaie	
Europe/ Africa	Ross Wanless*	Anton Wolfaardt	Stefan Garthe
Northern California	Anna Weinstein*	Matthew McKown	

Note: There were no write-in votes. Many thanks to all these members who were willing to stand for election.

PSG LISTSERV REPORT

Verena Gill and Jo Smith

On 7 December 2015, PSG launched a new listserv on BlueHost in preparation for closing the listserv hosted by a U.S. Fish and Wildlife Service (FWS) server, its home since its inception. Like the FWS account, the new List server uses Mailman, making transition easy for signing up because the look and feel is the same. The new PSG listserv has 3,000+ subscriber capacity.

The process of creating the new listserv was very long, beginning in Feb 2014 when a decision was made at the EXCO meeting in Juneau, AK that approved moving the listserv from FWS to a new host, the same company where the website is hosted – BlueHost. At that time, the information presented to EXCO showed that new software would need to be purchased and installed to allow for unlimited subscribers, the cheaper of several options available. The research showed that L-Soft would provide unlimited subscribers so in July 2014, PSG purchased L-Soft (costs: \$2,075 USD for a perpetual license and \$498.75 USD for one year of limited maintenance, Jul 2014 – Jun 2015). Please see the 2014 ExCo report from Verena Gill for more information regarding the initial decision for the listserv.

In January 2015, Annette Henry attempted to install L-Soft on BlueHost and, after several difficulties, learned that a second hosting account was needed to ensure PSG would not lose backup and adequate virus protection

for the website. In Feb 2015, a listserv hosting account was added to PSG's BlueHost account (cost: \$29.99 month) after approval by ExCo. In June 2015, Annette Henry "retired" as the Webmaster and the Past Chair took over the responsibilities of the website (see website report) and installing the listserv with Verena. By the end of July 2015, all login information related to L-Soft and BlueHost was shared with the Past Chair and a contractor was hired to maintain the website and assist with the listserv install. In September 2015, a computer programmer with this experience was sub-contracted to do the actual L-Soft install (cost: \$750 for 10 hours). In October, L-Soft was successfully installed but unfortunately the web interface would not work with BlueHost, and L-Soft provided no instructions. The sub-contractor tried three other mail programs but all had issues. He contacted L-Soft for assistance and was told that PSG's yearly maintenance fee had expired. The Past Chair contacted L-Soft and negotiated a 5% discount because they would not pro-rate for two months into the year; tech support was reinstated (Jul 2015 – Jun 2016). The sub-contractor received minimal assistance from L-Soft and learned that the program that L-Soft software needs are not present on BlueHost. After hours of independent troubleshooting, the sub-contractor determined that to get L-Soft to work on BlueHost, PSG would need to hire an expert in L-Soft software, which

could cost several thousand dollars. And, he'd nearly exhausted the \$750 budget for the installation. Meanwhile, the sub-contractor discovered that BlueHost uses Mailman and PSG could have 3,000+ subscribers with our existing listserv hosting account. So, the Chairs and Verena approved the decision to abandon L-Soft and proceed with Mailman. In late November, the subcontractor created the new listserv on Mailman. Verena added the account information and after a few more technical challenges, the new listserv was ready to go. On 14 Jan 2016, the Past Chair sent a letter to L-Soft requesting a full refund of the L-Soft purchases, claiming lack of tech support for their product (refund request \$3,098.75; letter attached). No response has been received yet.

As of 19 Jan 2016, the new List server has 510 subscribers. The old listserv was suspended in February (only Verena can post) and at a final count, had 902 subscribers. To get as many subscribers on the new listserv as possible, frequent reminders were sent from the old List server and posts made to the PSG web site. Announcements were made at the 43rd Annual Meeting in Hawaii that the old Listserv will be closed.

Verena drafted 'Terms and Conditions' for listserv etiquette on the new listserv that are being reviewed by the three chairs and will be sent for approval by ExCo. Once final they should be posted on the PSG web site.

REPORTS TO PSG EXECUTIVE COUNCIL FOR 2015-2016

MEMBERSHIP REPORT

Jennifer Lang

As of 09 January 2016, 639 current, lapsed, and payment pending PSG members were recorded on RegOnline (Table 1). Of this total, PSG consists of 432 current and confirmed members, including 80 life members. There are 68 confirmed student members, which is 15.74% of the total current members in PSG. Life members comprise 18.98% of the total current members with 82 members. There are 281 members with individual memberships, constituting 65.05% of the total current members in PSG. According to 2015 RegOnline data, 2015 resulted in 23 more confirmed members comprised of the following: 19 more individual, 2 more student, and 2 more lifetime members compared to 2014. The renewal glitch that occurred in 2014 did not affect the renewal process in 2015. Most of the members who chose to automatically renew their

membership were charged for 2015 and the start of 2016.

PSG members are a diverse group of researchers, supporters, and students. Current, confirmed members represent 22 countries, compared to the 20 countries in 2014 (Figure 1); 28 USA states, compared to 20 in 2014; and 8 Canadian provinces.

ACTION ITEMS COMPLETED

To boost membership, 266 lapsed members were emailed individually by Jennifer to encourage reinstatement of their PSG membership. Members who lapsed in 2013-2015 were identified to contact. Jennifer drafted an outreach email to ExCo, received feedback, modified email, got approved and followed through with contacting everyone from 6/30/15-7/16/15.

As of 1 January 2015, Jennifer

addressed 971 emails and issues from members and fulfilled 13 requests from EXCO members, not including creating member lists for representatives. Requests from EXCO were primarily related to elections, mailing lists, or budget inquiries.

ISSUES ENCOUNTERED

UNRESOLVED: Members who pay for a membership late in the year (Nov/Dec) whose memberships lapsed in that year would have to pay for a new membership in Jan. The membership coordinator currently allows rollover of membership if the member requests it or brings attention to it.

RESOLVED: Life members were all entered into the RegOnline system with the email Life@PacificSeabirdGroup.org. All life members should be up to date.

Table 1. Totals of membership type and status of membership since 09 January 2016

MEMBERSHIP TYPE	CONFIRMED	LAPSED	TOTAL
Honorary	1	0	1
Life	80	0	80
Life payment plan	2	1	3
Individual	120	44	164
Individual recurring	161	112	273
Student	11	11	22
Student recurring	57	39	96
Grand total	432	207	639

REPORTS TO PSG EXECUTIVE COUNCIL FOR 2015-2016

MEMEBERSHIP REPORT

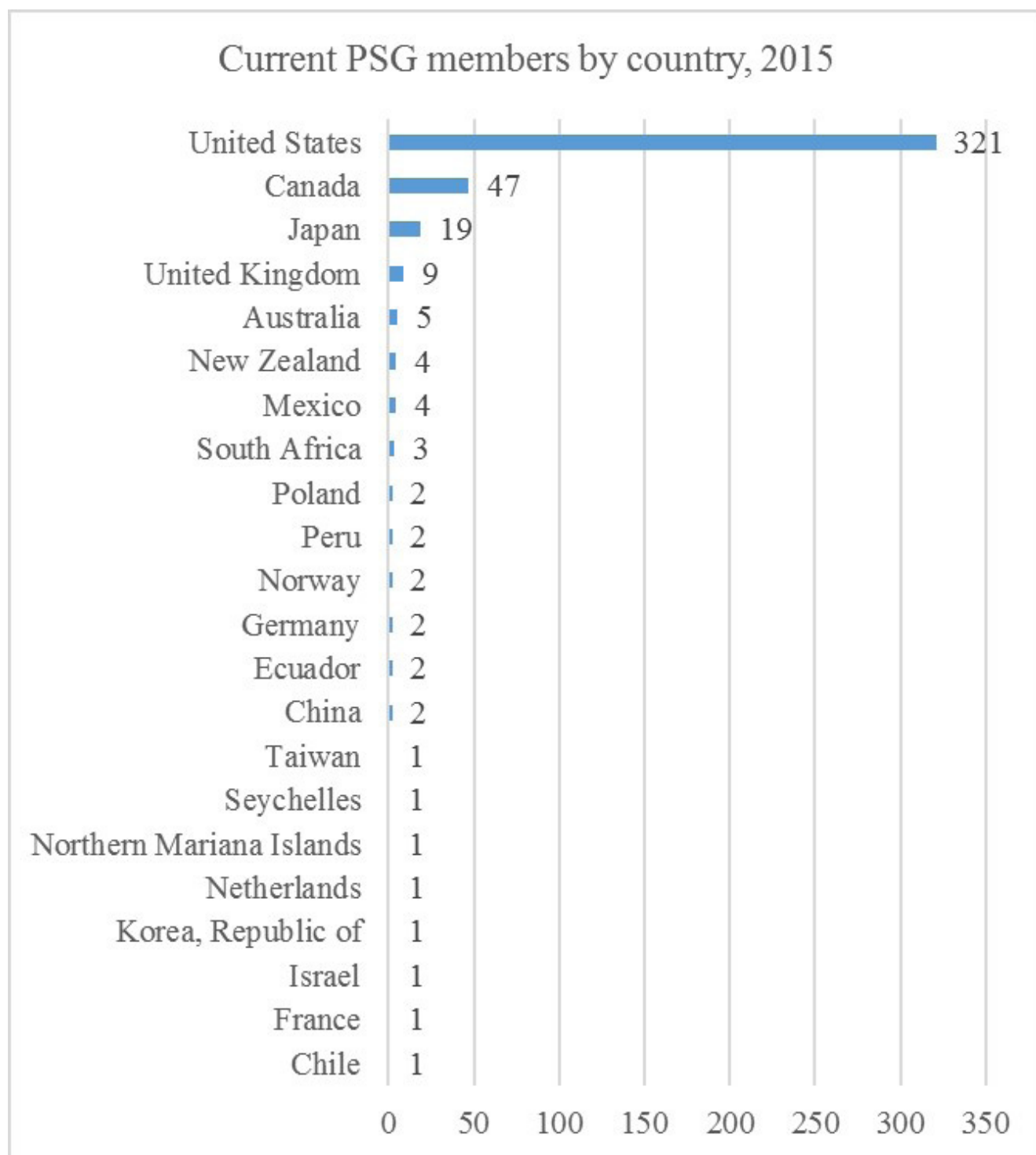


Figure 1. Countries represented by current PSG members, not including lapsed or pending memberships (n=432 members).

REPORTS TO PSG EXECUTIVE COUNCIL FOR 2015-2016

CORRESPONDING MEMBERSHIP COMMITTEE REPORT

Melanie Steinkamp, John Piatt, and Jessica Hardesty, Coordinators

The Corresponding Membership Committee provides PSG membership to researchers and conservationists in developing countries. Committee members presently include Melanie Steinkamp, John Piatt, and Jessica Hardesty. To retain "Corresponding Membership", recipients are asked to provide a brief report on research or conservation in their area at least every three years for Pacific Seabirds. Corresponding members facilitate other communications, such as the Indian Ocean Seabird Group Newsletter, that have been periodically posted to the PSG List-Serv. There is a total of 16 Corresponding Memberships allotted by the PSG. We can make those names available upon request.

Changes over the past year:

- There have been no changes over the past year

The goals of the Committee in 2016 are to gain two new members. We will be asking for reports from all Committee Members this year. Please contact Melanie Steinkamp if you have suggestions for other members. Contact: Melanie Steinkamp: Melanie_Steinkamp@fws.gov

MARINE ORNITHOLOGY

Tony Gaston, Managing Editor

The 2015/2016 Marine Ornithology Staff includes: David Ainley, Editor-in-Chief; Tony Gaston, Managing Editor; Reber Creative, Layout; Carolyn Brown and Gabriela Rangel (Portuguese, Spanish speakers), Technical Editing; Ben Saenz, Webmaster. 2016 was David Ainley's third year as Editor-in-Chief. He will continue at least until the end of 2016.

Two issues were published in 2015, containing a total of 38 papers and 5 book reviews, and totaling 262 pages. This is the largest 2-issue volume we have produced to date. Both issues were published on the website on time in April and October. First authors came from 13 Countries: US (14 papers), Australia (7), Canada (5), United Kingdom (2), South Africa (2), and one each from Mexico, Chile, Ecuador, Germany, Spain, Norway, Iraq and Indonesia. The area of origin of the papers published this year was 50% North American, 18% Australia, 13% Europe, 8% Latin America and 5% Asia. Total words published was approximately 185,000. Some additional appendices which appeared only at the website are not included in that total. Based on citations, Marine Ornithology is listed near the

top of the third quartile of zoology and oceanography journals by Scimago Journal Rank.

Because all of our income is in U.S. dollars but virtually all expenses are in Canadian dollars, our financial situation is strongly affected by the U.S./Canada exchange rate. For the past year, this has been relatively favorable for us, enabling us to increase the size of the journal without exceeding the financial support guidelines laid down by the PSG Executive Committee. Page charges were raised for papers submitted after 1 January 2015, from \$30 to \$40 per page. We receive page charges for about 50% of pages published. Charges on the rest are waived for authors with no institutional support.

In 2015, thanks to a grant of \$6000 from PSG, we hired a Business Manager who took over from the Managing Editor most of the financial management of the journal (invoicing subscribers, authors, soliciting sponsorships, mailing journals, etc.). This was a trial measure to see if significant sponsorship could be raised in support of the journal's mission. Unfortunately, this was not successful and, by mutual agreement,

the individual hired (Gary Kaiser) terminated his contract as of 31 October, so that only 9 months of payments were made (CN\$4500). The balance of the funds provided by PSG has been retained and should reduce future calls on PSG.

During 2015, the Managing Editor explored potential cost reductions available through off-shore layout and printing, specifically in India. Printing costs would not be reduced but layout costs could be reduced by about 25-30%. However, postage would be slightly higher. The overall saving would be in the order of CN\$1000-1500/year. The Managing Editor felt that this saving would not be worth the likely disruption to workflow and the possibility of trans-continental misunderstandings. Right now, the production process is thought to be working very efficiently. However, a return to the situation of two years ago when the CN dollar was on par with the US dollar might prompt a re-evaluation of this decision.

In the summer of 2015, the Managing Editor decided that he needed to find a replacement, owing to increased demands of supporting his ailing spouse. An ad-hoc committee comprising the

REPORTS TO PSG EXECUTIVE COUNCIL FOR 2015-2016

MARINE ORNITHOLOGY

Managing Editor and the three chairs formulated a list of possible candidates and initiated a search. Fortunately, one individual among the first group approached, Louise Blight, agreed to take over the job and a transition is currently underway. We thank Louise for stepping up for this demanding task and wish her the best of luck in this, occasionally frustrating, job. To clarify the workings of the journal and the work of the Managing Editor, I have appended a flow chart of the manuscript review and publication process.

With new blood on the job, the following tasks need to be addressed in the coming year:

1. Transfer of cash on hand to a new bank account run by Louise

2. Informing all correspondents about the change of e-mail address for business matters

3. Creation of a simple payment pathway, independent of PSG, for agencies and individuals wishing to pay subscriptions and page charges via credit card to the journal

4. Submission of the journal for listing by ISI (Thompson/Reuters)

5. Decision on whether to go online-only for publication

6. Further tweaking of the journal format to increase information density

7. Develop strategy for increasing the participation rate of European authors

The outgoing Managing Editor would like to thank Carolyn Brown for her excellent work as Technical Editor, as well as for much pro bono advice, Reber Creative (Mark, Sandy and Alisa) for their dedicated work on production, Patricia Baird for her unfailing enthusiasm and generosity, as well as for keeping the book reviews going, Akiko Shoji for help with mailing and invoicing for several years, Gary Kaiser for his excellent support at a tricky time, and the PSG Executive Committee, especially the current and past Chairs, for their faith and forbearance. I remain convinced that Marine Ornithology has a small but essential role to fulfil in the dissemination of scientific information and I urge the PSG to continue their support for this important initiative. It has been a slice.

Table 1. Income and expenditures for Marine Ornithology, 2005-2015, including financial support by PSG.

Support by PSG.

Balance	1 Jan 2005, \$7731.26				
	Income	Expenses	PSG contribution	PSG symposium	Deficit/profit
2005	\$9,042.53	\$12,867.35	\$4,200.00	Yes	-\$3,824.82
2006	\$16,979.87	\$9,663.29	\$4,065.00		\$7,316.58
2007	\$6,157.59	\$15,304.08			-\$9,146.49
2008	\$17,296.25	\$11,990.19	\$6,000.00		\$5,306.06
2009	\$10,569.07	\$13,103.64		Yes	-\$2,534.57
2010	\$7,256.40	\$8,564.51			-\$1,308.11
2011	\$14,223.15	\$9,823.53		Yes	\$4,399.62
2012	\$15,426.22	\$20,618.33	\$7,850.00		-\$5,192.11
2013	\$18,060.02	\$12,944.24	\$6,365.99		\$5,115.78
2014	\$4,980.84	\$11,120.69			-\$6,139.85
2015	\$24,506.34	\$14,293.29	\$14,364.61		\$10,213.05
Totals	\$144,498.28	\$140,293.14	\$42,845.60		
Balance	1 Jan 2016, \$10999.18				
PSG annual contribution			\$3,895.05		
Mean annual cost			\$12,753.92		
PSG as %income			30%		

Note: a check for \$7493 (layout 2015) was debited on 4 Jan 2016, bringing cash on hand to CN\$3505.70, with all 2015 expenses paid

REPORTS TO PSG EXECUTIVE COUNCIL FOR 2015-2016

MARINE ORNITHOLOGY

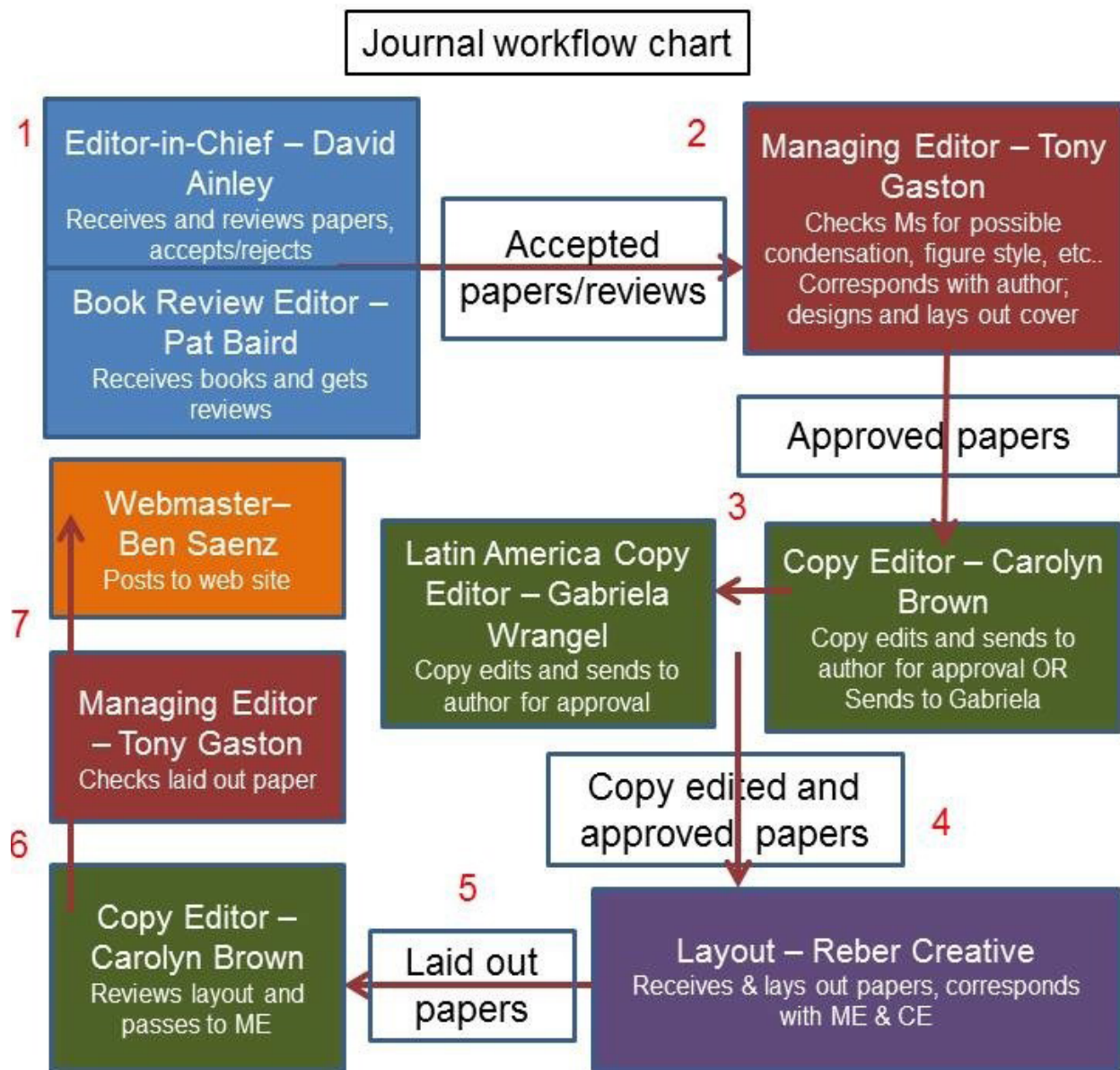


Figure 1. Flowchart of Marine Ornithology publication operations.

REPORTS TO PSG EXECUTIVE COUNCIL FOR 2015-2016

STUDENT REPRESENTATIVE REPORT

Andrew Titmus

There continues to be a healthy student membership within the Pacific Seabird Group. We currently have 68 active student members, while 42 former student members either lapsed or graduated. This represents an increase in the student membership over the past year. Students continue to represent a significant segment of the Pacific Seabird Group and are extremely active within the organization. For the 43rd annual meeting in Turtle Bay 20.5 percent of registrants were students, with those students representing 25 percent of all presenters at the annual meeting. In 2015, 21.7 percent of the registrants for the 42nd annual meeting in San Jose were students. These students come from many different education levels with undergraduates (6), masters (15),

and doctoral (17) students among those who presented at the annual meeting in 2016. Student members are also active in other aspects of the society with multiple students serving on the Executive Committee and in coordinator positions of other committees. Recruiting and retaining student members is very important for the Pacific Seabird Group because the majority of student members say they would continue to be a member of PSG after graduation.

The silent auction held at the annual meeting continues to be a success. These funds go towards supporting student travel to the annual meetings and students have repeatedly identified this source of funds as vital to their attendance at the annual meetings. At the San Jose meeting in 2015 we had a large

number of donations, and the auction raised a total of \$3,882. The student – mentor night at the annual meeting was very well attended and a great success. This event continues to be a highlight of the annual meeting where students have a chance to meet and network with senior members of the Pacific Seabird Group. I urge students to take advantage of this opportunity and for the rest of our members to participate as mentors.

Students are very active members of the Pacific Seabird Group and represent not only PSG's future, but its present. The Pacific Seabird Group should continue to encourage and support student members in their research, and active participation in the society, and at our annual meetings.

ORNITHOLOGICAL COUNCIL REPORT

Ellen Paul, OC Executive Director; Pat Baird and Doug Forsell, PSG Representatives to OC

PSG members may not know all the services that the Ornithological Council (OC) performs for the community because the majority of OC's work is in the behind-the-scenes as an advocate for the bird research and conservation community. Below is a summary of the highlights of the Annual Report of the Ornithological Council by Ellen Paul. The entire report can be found on the Ornithological Council's web page or Ornithology Exchange.

Annual Report from the Ornithological Council 1 July 2014 - 30 June 2015
The purpose of the Ornithological Council, a consortium of all the ornithological societies of North America, is to:

- Ensure that the best ornithological science is incorporated into legislative, regulatory, and management decisions that affect birds
- Enhance the ability of ornithologists to pursue professional activities
- Promote the influence of ornithology in public affairs

The work of the Council this year focused on permits, animal welfare issues, research funding, and policies that affect ornithologists and ornithological societies.

I. ANIMAL WELFARE

The Ornithological Council continues to make progress in assuring that implementation of the Animal Welfare Act and related policies are more attuned to wildlife biology versus lab-based

work. The following is a summary of the Council's recent accomplishments:

A. Together with the American Society of Mammologists, they completed a detailed review of various animal welfare federal policies in the context of wildlife research. This review will help the Federal Demonstration Partnership (funding and research institutions and universities) in the review of protocols for research. Once completed, the OC will distribute the document to all University Institutional Animal Care and Use Committees along with the wildlife research protocol developed by the OC.

B. The OC filed comments to the USDA Animal and Plant Inspection Agency Animal Care Unit after a request from the Physician's Committee for

REPORTS TO PSG EXECUTIVE COUNCIL FOR 2015-2016

ORNITHOLOGICAL COUNCIL REPORT

Responsible Medicine to amend the Animal Welfare Act regulations.

C. The AVMA wanted anyone needing to euthanize a bird to bring along complex medical equipment and supplies even to remote field areas to euthanize injured birds via pentobarbital injection. The OC realized that this was not possible in many instances and they became an advocate for field researchers regarding necessary euthanasia in the field. The OC submitted data to support the method of thoracic compression for euthanasia (for some species) of birds as “conditionally acceptable” to the American Veterinary Medical Association for inclusion in its revised Guidelines for Euthanasia of Animals. The AVMA reclassified it as “unacceptable,” and wanted first a study that measured brain activity to support the conclusion of the OC. With funding from the AOU, the OC arranged to have such a study conducted, and it was completed in the spring of 2014. The study found that thoracic compression is cardiac compression and brings about a rapid loss of consciousness. This loss of consciousness is quicker with TC than with Pentobarbital. The research has been submitted to a peer-reviewed journal, and the OC is now pressing the AVMA to change the classification to “acceptable,” and to rename it “cardiac compression.”

D. The OC pointed out a possible conflict between regulations in the Animal Welfare Act and MBTA or ESA permit regulations regarding rendering medical care or euthanasia to injured birds. The AWA regulations require that research protocols include plans for these, but medical care or euthanasia would also have to be permitted under the MBTA or ESA. The OC has been pushing the USFWS to include a standard permit condition pertaining to euthanasia of injured birds, but the USFWS is going to wait until the change in the AVMA guidelines is finalized.

E. OC Executive Director Ellen Paul was an invited speaker on a panel

for wildlife research at the annual meeting of the American Association for Laboratory Animal Science. Among thousands of attendees at this conference were hundreds of people who sit on or chair Institutional Animal Care and Use Committees at universities. For those of you who have had to submit applications to the ACUC to conduct your research, the OC’s place on the panel advocating for bird research was a very positive event that might influence these committees to help move researchers more easily through the permitting process.

II. PERMITS

A. The California Department of Fish and Wildlife (formerly Fish and Game) is planning to revise its regulations for scientific collecting permits for scientific research. The OC realized this was an opportunity to ask that holders of federal banding permits should be exempted from obtaining an additional permit from the CDFW because federal permits already protect the birds they are studying. The OC, after asking for input from California ornithologists (museums, NGOs, universities, etc.) sent comments to CDFW with a detailed appendix of the many layers of federal and state protection for most bird species. The OC furthermore urged the CDFW to extend this practice to all permits for ornithological research on species protected under the MBTA except for state-listed endangered species.

B. Concomitantly, the OC initiated an effort to persuade all 50 states to consider exempting holders of federal MBTA permits from state permit requirements. Because most state wildlife agencies are under difficult budget restraints, this change would free up resources without reducing protection for MBTA species.

C. The OC continued to address problems with the way MBTA import permits are issued. The Director, Ellen Paul, discussed the necessity of issuing a single permit without numerical limits with the Assistant Regional Director for Migratory Birds in Region 8 of the

USFWS, and they agreed. Because of this, and because all regions do not yet have the same policy (e.g. Region 5 persists in requiring listing of every species for every country, thus adding unnecessary permit amendments), the OC continues to press the MBTA permit staff to develop a uniform procedure that will be implemented by all regions.

D. There are problems with the procedural requirements for import of research material from species protected under the Convention on International Trade in Endangered Species (CITES), and the OC joined with the American Society of Mammologists and with the Society for the Preservation of Natural History Collections to petition the Secretary of the Interior to revoke or suspend these requirements regarding scientific specimens and samples.

E. The OC launched an initiative to persuade museums around the world to ask their governments to give them registered scientific institution status because shipments between these are considerably easier than shipments made with CITES permits. The OC had the letter translated into French and Spanish (the other official languages of CITES besides English), as well as several other languages, and will aid ornithologists to send these letters to their colleagues in museums.

F. The Animal and Plant Health Inspection Service (APHIS) sought input from the OC as to ways to reduce the burden of restrictions on imports of avian material by researchers.

G. The OC helped dozens of ornithologists to obtain MBTA, ESA, and CITES permits, as well as permits issued by APHIS. The OC also helped various researchers navigate the complex import and export processes. Anyone with problems that they have encountered with permits should notify the OC Executive Director Ellen Paul and she will work with them to identify the source of the problem and will devise

REPORTS TO PSG EXECUTIVE COUNCIL FOR 2015-2016

ORNITHOLOGICAL COUNCIL REPORT

ways to correct it. The OC receives at least one request per week for this particular problem.

III. POLICIES AFFECTING RESEARCH AND SCIENTIFIC SOCIETIES AND OTHER SERVICES TO THE ORNITHOLOGICAL COMMUNITY

A. The OC, with members of the AOU Collections Committee and the Society for the Preservation of Natural History, submitted extensive comments to the DOI explaining why it would be difficult and burdensome for any institution with bird collections from public lands managed by DOI agencies to submit detailed reports of their holdings. The OC proposed to meet with DOI officials to discuss implementing less burdensome alternatives. As yet, there has been no action on this.

B. The OC conducted the first of three annual rounds of the pilot phase of the small grants program and issued a request for proposals for the second round of funding. There is now a fourth round of funding (2015).

IV. OF NOTE TO THE ORNITHOLOGICAL COMMUNITY

A. The OC, upon request, will conduct a webinar on permits, animal welfare issues, the role of science in bird conservation, and other topics of interest. Go to the website for the list of topics for 2016.

B. The OC keeps scientists informed about policy changes that affect the way they conduct their research. Anyone can keep up on the latest by going to the Ornithology Exchange

website or by emailing the Director Ellen Paul.

C. The OC provides scientific information about birds to many government agencies, businesses, landowners, the press, and others.

D. The USFWS plans to issue an environmental impact statement proposing methods to regulate the take of bird species protected under the MBTA incident to otherwise lawful activities (e.g. energy production, telecommunications infrastructure). The OC is preparing comments to submit and has invited the conservation committees of the US Ornithological societies, including that of PSG, to take part in preparing those comments. Comments will focus on issues such as the need for monitoring, research into mitigation measures, and other areas of concern.

WORLD SEABIRD UNION REPORT

Patrick Jodice, WSU Chair

The WSU met in Cape Town, South Africa, in October 2015. In attendance were 562 delegates from 52 countries. The United States, United Kingdom, South Africa, Australia, and Canada were the five countries with the most delegates. There were approximately 230 students and early career scientists.

The WSU continues to be made up of member organizations and we are in the process of updating those positions, i.e., ensuring we have a primary and secondary delegate for each organization, that defunct organizations are cleared, and that new organizations have a path to membership if appropriate.

At WSC2, we inaugurated a new Board of Directors: Betty Anne Schreiber, Treasurer; Nicolas Carlile, Vice Chair; Kees Camphuysen, Secretary; David Irons, Past Chair; and

Patrick Jodice, Chair. Terms are 5 years. New regional (voting) board members include: Africa/Indian Ocean – Ross Wanless & Taryn Morris; Asia – Yutaka Watanuki & Akinori Takahashi; Austral – Peter Dann & Chris Gaskin; Europe – Liz Humphries & Pedro Geraldes; North America – Kim Nelson & Ken Morgan; South America – Pablo Yorio & Carlos Zavalaga. Many of the standing committees within WSU will need new members as we transition from WSC2 to planning a WSC3. The board will be working to fill those positions over the coming 12-18 months and PSG reps will be informed about this so that your membership can consider participating.

Patrick Jodice served as the PSG rep through WSC2, and Kathy Kuletz is now in that position. It is up to the member organization to decide how long the term

is, although WSU has suggested a term that allows someone to serve until the next WSC (i.e., ca. 5 years). WSU also prefers that an alternate rep be appointed as well, to fill-in as needed.

ACTION ITEMS:

- Confirm status of Kathy Kuletz as PSG rep.
- Appoint alternate rep

PSG NEWS

Read about changes to Pacific Seabirds and other transitions in 2016.

EDITOR'S NOTE

Pacific Seabirds began as the *Pacific Seabirds Bulletin* in 1974, publishing the proceedings of the Pacific Seabird Group biannually. As of 2014, the bulletin transitioned from printed publication to an electronic bulletin only accessible on-line via the PSG website. Vivian Mendenhall filled the dedicated work as editor for many years, and was succeeded by interim editors Holly Freifeld and Kathy Kuletz. I stepped in to fill these big shoes in early 2016 to fulfill the completion of the 43rd volume of this bulletin, and to assist with future volumes. This edition was made possible by volunteer editorial assistance by Leslie Slater, Laura Bliss, Yuri Albores-Barajas, Marc Romano, and Laura Todd. Photographs were thankfully provided by Nina Karnovsky, Kim Nelson, Sarah Shoen, David Ainley, Eric VanderWerf, and Gus van Vliet. Many thanks again to Mesha Wood for taking time to format this text into that of previous *Pacific Seabirds* editions. Thank you to Jane Dolliver for providing content, and Kathy Kuletz and Nina Karnovsky for their valuable insight and guidance in the production of this document. I am grateful for all of the individuals who have contributed their time and effort to develop this issue.

The 2016 team-PS was a temporary, volunteer effort, and PSG is looking for a more permanent Editor and Associate Editors for Pacific Seabirds. We welcome new ideas and people. For further information, contact the PSG Chair at: chair@pacificseabirdgroup.org.

- Jennifer Lang

TRANSITIONS AND THANK YOU'S

One of the unique qualities of the Pacific Seabird Group is its strong membership-based operations. The PSG relies on the active engagement of its members to complete the business of PSG, including running the Executive Council, serving as an interface between PSG and regional members, conservation initiatives, and planning and execution of our annual meetings. Those who step forward contribute their expertise and time, ranging from hours to years of work. There is, of course, turnover, which is good for PSG growth and it allows others to benefit from this valuable experience. We would like to thank and honor those who handed over the baton in 2016.

Jo Smith has been a pivotal force in the development and execution of the new PSG website and logo as the coordinator of the Communications Committee and interim webmaster. The revived PSG website was launched in early October 2016 retaining the same content (and more!), but with a fresh new look. Thank you, Jo for all you have done!

Tony Gaston, who has run Marine Ornithology since the Pacific Seabird Group took over the production of the journal in 2000, will be transferring responsibilities as Managing Editor to Louise Blight. Thank you, Tony for your years of expertise and skill managing PSG's professional publication.

After two years of skillful organization and management of PSG accounts, Christine Ogura has handed her appointment as PSG Treasurer to Martin Renner. Thank you, Christine, for your hard work throughout your term. We welcome two new members to the ExCo team: Ross Wanless has filled in for regional representative of Europe and Africa for Stephen Garthe, and Chris Tyson is now the new Student Representative succeeding Andrew Titmus. Thank you, Stephen and Andrew for serving in these positions!



Justine Miller, Kuniko Otsuki, Andrew Titmus, Laurie Wilson, and Mayumi Arimitsu showing off conference swag.
Photo credit: Nina Karnovsky

MEETING NEWS

PSG'S 43rd ANNUAL MEETING, FEBRUARY 2016

Nina Karnovsky

The 43rd annual meeting was held at Turtle Bay, O'ahu, Hawai'i. The theme of the scientific program was 'Seabirds: Responses and Resilience.' In addition to the many sessions that embodied this theme (e.g. responses to fisheries and seabird recoveries from restoration efforts), we had a lively round table discussion led by David Duffy and William Sydeman on seabird responses to recent climate anomalies. David said, "We had an excellent round table, minus the table, on recent climate anomalies. Sharp people with good insights. Lots of anomalies but great variation."

On the Wednesday before the three-day scientific program started, the Turtle Bay Resort was abuzz with activity with the meeting of PSG's EXCO, the Kittlitz's Technical Committee, the Marbled Murrelet Technical Committee and the PSG Seabird Monitoring Committee. In the following days, the North Pacific Albatross Working Group, the Hawaii and Pacific Island Seabird Workshop Scoping Meeting, the Northeast Asia Seabird Conservation Committee, and the newly formed Aleutian Tern Technical Committee met. The Tufted Puffin Committee had a meeting to discuss puffin conservation and to work towards becoming a new technical committee.

The tropicbird artwork for the program was done by Kealopiko, a company

that makes Hawaiian inspired items. Max Brown, the Program Chair, Nina Karnovsky's 11-year-old son, provided the cormorant painting for the back cover.

Kathy Kuletz, chair, opened the meeting with a funny and warm welcome. Lindsay Young, chair of the local committee, gave a presentation on the demographics of attendees. The meeting attendees had a large young cohort; 40% are students and early career scientists. Nine students attended the meeting with the help of travel awards. Five non-US or Canadian scientists received travel grants as well. At least 10 countries were represented at the meeting.

Lisa Ballance of the Southwest Fisheries Science Center in La Jolla and Scripps Institution of Oceanography, gave an excellent opening plenary talk on tropical seabird ecology in the Eastern Tropical Pacific Ocean, entitled "The Life Aquatic—Reflections on the At-Sea Lives of Seabirds in the Eastern Tropical Pacific Ocean." Her morning talk set the stage for many outstanding presentations on Pacific seabirds. The following day, William Sydeman, from the Farallon Institute for Advanced Ecosystem Research, presented an enormously informative plenary talk, "New Tricks, Old Dogs, Seabird Resilience, and No-Analog Ecosystems." His talk was referenced in many discussions that

followed during the meeting about recent climate anomalies.

The scientific program included seven Special Paper Sessions: (1) Move them or lure them: Translocation and Social Attraction in Seabirds (7 talks); (2) Restoring Nesting Habitat for Seabirds (9 talks); (3) Seabirds in Northeast Asia (8 talks, 1 poster); (4) 3rd Marine Spatial Planning Session (11 talks); (5) Tern Colony Restoration and the Development of Conservation Networks: Breeding and Non-breeding Periods (11 talks, one poster); (6) Urban Seabirds: Roadblocks and Solutions to Conservation in Urbanized Environments (6 talks); and (7) Foraging and breeding ecology of a high Arctic auk, the Dovekie *Alle alle* (6 talks). There were also general sessions on Fisheries Interactions, Climate Change, Contaminants, Debris and Disease, Tracking and Distributions, Behavior, Tools and Techniques, Eradication, and Population Biology.

John Piatt, Gus van Vliet and Harry Carter co-convoked a Symposium on the Ecology and Status of Rare and Threatened Pacific Auks (16 talks). The symposium provided a much needed update on what is known about rare Alcids in the 20+ years since a similar symposium was given at PSG. All the speakers in the symposium donned 'Alcid Head' t-shirts designed by John Piatt's daughter.



The Northeast Asia Seabird Conservation Committee. Photo credit: Nina Karnovsky

MEETING NEWS

One of the most popular presentation/demonstration was given by Haruo Uchiyama. Mr. Uchiyama is a Japanese artist who has contributed greatly to seabird conservation. He is a wood carver whose incredibly realistic decoys were instrumental in the restoration of short-tailed albatross. Mr. Uchiyama gave a demonstration of how he uses his carvings to teach ornithology and evolution to people who can't see.

During the presentations of 46 posters the first night, there was lots of lively exchanges and discussions. The student mentor session on Friday night allowed students to talk with mentors in an informal setting with delicious food.

The Conservation Committee meeting was well attended with lunch provided. We heard about the exciting developments in the conservation of the Chinese Crested Tern from Simba Chan. Lindsay Young gave a report on the devastating recent massacre of Laysan albatross at Keana Point. Michelle McDowell gave a sobering report of the culling of seabirds that forage in the Columbia River. Scott Hall reported on the status of the National Fish and Wildlife Foundation. Federico Méndez left us in awe with his presentation of the extensive conservation efforts GECI is carrying out in Baja.

On Saturday morning, John Piatt was honored with a wonderful presentation by Dan Roby when he received a Lifetime

Achievement Award. Nina Karnovsky gave the tribute to Larry Spear who received a lifetime achievement award posthumously. Gus van Vliet was honored with a Special Achievement Award after a beautiful presentation by Kim Nelson. Lindsay Young received a Special Achievement Award after Mark Rauzon gave a great presentation of her many achievements.

Kathy Kuletz facilitated the members meeting where Jo Smith presented the ongoing business of PSG including the development of a Code of Conduct. Several people attended despite the spectacular scene of seabirds soaring outside.

At the banquet that evening, awardees were presented with Hawaiian leis by Kathy Kuletz before they made their remarks. David Ainley spoke on behalf of Larry Spear. The winners of the best student paper and poster awards were given out by Jo Smith and David Craig. As usual, the dancing went long into the night.

The following day many people embarked on either the Oahu birding trip or to the Hawaii Island Trip for a day of birding in Hakalau National Wildlife Refuge.

The session and symposium conveners did an amazing job; many thanks to Lindsay Young, Eric VanderWerf, Jennifer Boyce, Scott Hall, Daisuke Ochi, Gregg Howald, Joanna Smith,

David Pereksta, Dan Roby, Simba Chan, Shuihua Chen, Don Lyons, Yasuko Suzuki, David Hyrenbach, Katarzyna Wojczulanis-Jakubas, Dariusz Jakubas, John Piatt, Gus van Vliet, and Harry Carter. The general session chairs also did an outstanding job. Thank you, Annie Little, Heather Renner, Stephani Zador, Stacy Vander Pol, David Ainley, Jean-Baptiste Thiebot, Douglas Bertram, Evaristo M. Rojas-Mayoral.

The spirit of Aloha was in abundance throughout the meeting. The Laysan albatross put on a daily show wheeling past the meeting. So many volunteers were incredibly generous with their time. Many, many thanks go to Lindsay Young, chair of the local committee, for welcoming PSG back to Oahu and for the second time and once again putting on an outstanding meeting. A special thanks goes to Eric VanderWerf for his help as well. The tireless work of EXCO members, especially Kathy Kuletz, PSG chair, and Jo Smith, past chair, made the meeting an unforgettable experience where a tremendous amount of information about seabird ecology and conservation was exchanged, collaborations were forged, and friendships were renewed and strengthened.



Participants of the Dovkie Special Paper Session. Left to right: Thomas Van Pelt, Carina Gjerdrum, Katarzyna Wojczulanis-Jakubas, Johanna Hovinen, Dariusz Jakubas, Nina Karnovsky, and Iain Stenhouse. Photo credit: David Ainley

MEETING NEWS

EXECUTIVE COUNCIL MINUTES

The Pacific Seabird Group's board of directors, the Executive Council (EXCO), meets at each Annual Meeting and several times a year via conference call. Minutes are available on the PSG website after they are approved at the subsequent meeting. A summary of the Annual Meeting minutes is provided in Pacific Seabirds. All PSG members are welcome to attend EXCO meetings and contact PSG council members if they have questions, suggestions, or concerns.

SUMMARY OF MINUTES OF THE EXECUTIVE COUNCIL MEETING

10 February 2016

43rd Annual Meeting, Kahuku, Hawai'i

Turtle Bay Resort

Summary of actions by EXCO

February 2015-February 2016:

- Passed a balanced FY2015 PSG operating budget
- Organized and held the 43rd Annual PSG Meeting on Oahu in February 2016, with 264 attendees, including 132 oral presentations and 4 posters
- Sent four Conservation Letters to government agencies
- Maintained a membership of 432 members representing 22 countries
- Approved a proposal to update the PSG website
- The host of the PSG Listserv transitioned from a U.S. Fish and Wildlife server to a Bluehost server
- Secured Louise Blight as new Managing Editor for Marine Ornithology
- Filled the vacant Communications Coordinator position
- Maintained a listserv with 510 active members and 1000 weekly views to social media accounts

EXECUTIVE COUNCIL REPORTS

Past Chair's Report:

John Piatt and Larry Spear received Lifetime Achievement Awards, and Lindsay Young and Gus van Vliet received Special Achievement Awards at the 43rd PSG conference in 2016. Travel awards were presented to 9 students and to 6 non-US or Canadian scientists, and 42 student papers were in consideration for student awards this year. Website responsibilities transitioned from long-time webmaster, Annette Henry, to the

Past Chair (Jo Smith, Interim Webmaster) and a part-time private consultant (Anne Francis Web Design). Jo Smith led the ad hoc Code of Conduct Committee to develop a draft Code by November 2016 for discussion by the ExCo and members. She also drafted two new policies to complete PSG project-grants policy and document retention policy.

Chair's Report:

In 2015, the Chair oversaw the work of all committees and led 10 conference calls to facilitate EXCO projects throughout the year. In addition to support and assistance to the elections committee, the local committee and the communications committee, important accomplishments include passing an update to the PSG Bylaws, the development of a draft Code of Conduct via the Ad-hoc Code of Conduct Committee, securing Louise Blight as Managing Editor for Marine Ornithology. Financially, PSG is in good shape with a budget surplus in FY2015 (see Treasurer's Report), healthy balances in the student travel awards (\$3880.00 from PSG 2015) and the Craig S. Harrison Conservation Fund (\$7133.00) accounts.

Chair-Elect's Report:

The Chair-Elect took the lead in organization of the 2016 PSG Annual Meeting, including selecting a theme, organizing special paper sessions and symposia, planning concurrent sessions, securing two plenary speakers and

producing the 2016 program and abstract book.

Vice Chair for Conservation's Report:

Four Conservation letters were sent in the past year: (1) to the U.S. Fish and Wildlife Service re: Proposed Ruling for Marbled Murrelet Critical Habitat, (2) to the Bureau of Land Management re: draft Western Oregon Resource Management Plan, (3) to the U.S. Fish and Wildlife Service re: possible permit program for the incidental take of migratory birds by industries, (4) to the U.S. Department of Agriculture re: transitioning away from logging old-growth forest in the Tongass National Forest in Alaska.

Treasurer's Report:

The FY2015 closeout budget includes an income of \$119,055.00, expenses of \$84,821.56, for a total profit to PSG of \$34,233.44.

ANNUAL MEETING UPDATES

2017 Annual Meeting: Two solid options for host cities are: (1) Tacoma, WA (local committee formed), or (2) Portland, OR (local committee agreed, but only as plan B). The Tacoma Convention Center has an opening 22 February 2017; Olympia is not an option January or February because there is no venue large enough.

OTHER BUSINESS

Membership:

PSG has 432 current (paid) members,

SUMMARY OF MINUTES OF THE EXECUTIVE COUNCIL MEETING

including 68 student members and 80 lifetime members, representing 22 countries. The goal for 2016-2017 is 500 members.

MOTIONS

The new 2016-2017 EXCO members:

EXCO approved new membership-elected candidates for the 2016-2017 EXCO. They include: Kyra Mills-Parker (Chair Elect), Martin Renner (Treasurer), Ross Wanless (Europe and Africa Regional Representative), and Chris Tyson (Student Representative).

Actions to change the fiscal year:

EXCO approved the motion to pursue actions to change the fiscal year from current (Oct-Sep) to new (Apr-Mar) pending review of budgetary guidelines and feasibility. Following a discussion of fiscal year misalignment with PSG income and expenses, the EXCO agreed there was a need for better rules about budget decisions and budget items.

International

Congress:

EXCO approved committing \$1000 to the IOC meeting in Vancouver, Canada in 2018, pending budgetary approval. Any IOC profits are shared among the sponsors, but PSG will budget as a loss.

Website proposal:

EXCO approved the website refresh proposal pending budgetary approval in the amount of \$4400 USD.

Account and bookkeeper fees:

Pending payment of Jan invoice to Smith and Archibald (accounting firm) and website maintenance, EXCO approved an increase in account and bookkeeper fees up to \$2500.

Bylaws:

EXCO approved the following changes to the Bylaws:

- Article 7, Section 2, Clause D: Replace the word “unanimous” with

Ornithological

“75%.”

- Article 7, Clause A: Change text to “It likewise does not apply to those expenditures necessary to accommodate changes in attendance at meeting above the number in the approved meeting budget, unless the changes result in a meeting budget with losses; those expenditures to the annual meeting must be approved by the Chair, Chair Elect, and Treasurer.”

- Article 12, Section 2: Revise text to “...at least 30 days before the close of the ballot, and members can return ballots electronically or by mail.”

- Article 2, Section 2: Revise text to “...paid between 1 January and 28 February” AND “...shall be paid by 28 February.”

Aleutian Tern Technical Committee:

EXCO approved the formation of the Pacific Seabird Group Aleutian Tern Technical Committee. Susan Oehlers and Michael Goldstein are the Committee



Enjoying lunch in the Hawaiian sun

PUBLICATIONS OF THE PACIFIC SEABIRD GROUP

The Pacific Seabird Group publishes symposia and other works. PSG Symposia are occasionally held at Annual Meetings; those which have been published are listed below. Technical Reports prepared by PSG working groups are also listed. To order one of these PSG publications, please see instructions after each item. Abstracts of papers and posters given at PSG meetings are published annually. Abstracts for meetings of 1974 through 1993 appeared in the PSG Bulletin (Volumes 2-20); for meetings of 1994 through 2003, in Pacific Seabirds (Volumes 21-30); and for meetings of 1997 and later, at www.pacificseabirdgroup.org. PSG publishes the on-line bulletin Pacific Seabirds (www.pacificseabirdgroup.org) and the journal Marine Ornithology (www.marineornithology.org). Current and past issues of both journals are available online.

SYMPOSIA

SHOREBIRDS IN MARINE ENVIRONMENTS. Frank A. Pitelka (Editor). Proceedings of an International Symposium of the Pacific Seabird Group. Asilomar, California, January 1977. Published June 1979 in Studies in Avian Biology, Number 2. *Available free of charge at* <http://elibrary.unm.edu/sora/Condor/cooper/sab.php>

TROPICAL SEABIRD BIOLOGY. Ralph W. Schreiber (Editor). Proceedings of an International Symposium of the Pacific Seabird Group, Honolulu, Hawaii, December 1982. Published February 1984 in Studies in Avian Biology, Number 8. *Available free of charge at* <http://elibrary.unm.edu/sora/Condor/cooper/sab.php>

MARINE BIRDS: THEIR FEEDING ECOLOGY AND COMMERCIAL FISHERIES RELATIONSHIPS. David N. Nettleship, Gerald A. Sanger, and Paul F. Springer (Editors). Proceedings of an International Symposium of the Pacific Seabird Group, Seattle, Washington, January 1982. Published 1984 as Canadian Wildlife Service, Special Publication. Out of print; *available free of charge at* www.pacificseabirdgroup.org

THE USE OF NATURAL VS. MAN-MODIFIED WETLANDS BY SHOREBIRDS AND WATERBIRDS. R. Michael Erwin, Malcolm C. Coulter, and Howard L. Cogswell (Editors). Proceedings of an International Symposium at the first joint meeting of the Colonial Waterbird Society and the Pacific Seabird Group, San Francisco, California, December 1985. Colonial Waterbirds 9(2), 1986. \$12.00. Order from: Ornithological Societies of North America, PO Box 1897, Lawrence, Kansas 66044; phone (800) 627-0629; no online orders.

ECOLOGY AND BEHAVIOR OF GULLS. Judith L. Hand, William E. Southern, and Kees Vermeer (Editors). Proceedings of an International Symposium of the Colonial Waterbird Society and the Pacific Seabird Group, San Francisco, California, December 1985. Published June 1987 in Studies in Avian Biology, Number 10. \$18.50. *Available free of charge at* <http://elibrary.unm.edu/sora/Condor/cooper/sab.php>

AUKS AT SEA. Spencer G. Sealy (Editor). Proceedings of an International Symposium of the Pacific Seabird Group, Pacific Grove, California, December 1987. Published December 1990 in Studies in Avian Biology, Number 14. *Available free of charge at* <http://elibrary.unm.edu/sora/Condor/cooper/sab.php>

STATUS AND CONSERVATION OF THE MARBLED MURRELET IN NORTH AMERICA. Harry R. Carter, and Michael L. Morrison (Editors). Proceedings of a Symposium of the Pacific Seabird Group, Pacific Grove, California, December 1987. Published October 1992 in Proceedings of the Western Foundation of Vertebrate Zoology, Volume 5, Number 1. \$20.00. *Available free of charge at* www.pacificseabirdgroup.org

THE STATUS, ECOLOGY, AND CONSERVATION OF MARINE BIRDS OF THE NORTH PACIFIC. Kees Vermeer, Kenneth T. Briggs, Ken H. Morgan, and Douglas Siegel Causey (editors). Proceedings of a Symposium of the Pacific Seabird Group, Canadian Wildlife Service, and the British Columbia Ministry of Environment, Lands and Parks, Victoria, British Columbia, February 1990. Published 1993 as a Canadian Wildlife Service Special Publication, Catalog Number CW66-124 1993E. *Order free of charge from:* Publications Division, Canadian Wildlife Service, Ottawa, Ontario, K1A 0H3, Canada

PUBLICATIONS OF THE PACIFIC SEABIRD GROUP

BIOLOGY OF MARBLED MURRELETS—INLAND AND AT SEA. S. Kim Nelson and Spencer G. Sealy (Editors). Proceedings of a Symposium of the Pacific Seabird Group, Seattle, Washington, February 1993. Published 1995 in *Northwestern Naturalist*, Volume 76, Number 1. \$12.00. **Available free of charge at** www.pacificseabirdgroup.org

BEHAVIOUR AND ECOLOGY OF THE SEA DUCKS. Ian Goudie, Margaret R. Petersen and Gregory J. Robertson (editors). Proceedings of the Pacific Seabird Group Symposium, Victoria, British Columbia, 8-12 November 1995. A special publication compiled by the Canadian Wildlife Service for the Pacific Seabird Group. Published 1999 as Canadian Wildlife Service Occasional Paper number 100, catalog number CW69-1/100E. Order free of charge from: Publications Division, Canadian Wildlife Service, Ottawa, Ontario, K1A 0H3, Canada, or **available free of charge at** www.pacificseabirdgroup.org

SEABIRD BYCATCH: TRENDS, ROADBLOCKS AND SOLUTIONS. Edward F. Melvin and Julia K. Parrish (editors). Proceedings of an International Symposium of the Pacific Seabird Group, Blaine, Washington, 26-27 February 1999. Published 2001 by University of Alaska Sea Grant, Fairbanks, Alaska. Publication no. AK-SG-01-01. \$40.00. **Order from publisher.**

BIOLOGY, STATUS, AND CONSERVATION OF JAPANESE SEABIRDS. Yutaka Watanuki, Harry R. Carter, S. Kim Nelson and Koji Ono (conveners) and Nariko Oka (editor). Proceedings of an International Symposium of the Japanese Seabird Group and Pacific Seabird Group, Lihue, Hawaii, February 2001. *Journal of the Yamashina Institute of Ornithology* 33(2); Symposium (5 papers), pp 57-147, other papers pp. 148-213. In English with Japanese abstracts. \$75.00. **Order from PSG** - contact the Chair at Chair@pacificseabirdgroup.org

OIL AND CALIFORNIA'S SEABIRDS. Harry R. Carter (convener) and Anthony J. Gaston (editor). Proceedings of a Symposium of the Pacific Seabird Group, Santa Barbara, California, February 2002. Published 2003 in *Marine Ornithology* 31(1). **Available free of charge at** www.marineornithology.org

THE BIOLOGY AND CONSERVATION OF THE AMERICAN WHITE PELICAN. Daniel W. Anderson, D. Tommy King, and John Coulson (editors). Proceedings of a Symposium of the Pacific Seabird Group. *Waterbirds*, Volume 28. Special Publication 1, 2005. Published by the Waterbird Society. \$15.00. **Order from PSG** - contact the Chair at Chair@pacificseabirdgroup.org

BIOLOGY AND CONSERVATION OF XANTUS'S MURRELET. Harry R. Carter, Spencer G. Sealy, Esther E. Burkett, and John F. Piatt (editors). Proceedings of a symposium of the Pacific Seabird Group, Portland, Oregon, January 2005. Published 2005 in *Marine Ornithology* 33(2):81-159. **Available free of charge at** www.marineornithology.org

SEABIRDS AS INDICATORS OF MARINE ECOSYSTEMS. John F. Piatt and William J. Sydeman (editors). Proceedings of an International Symposium of the Pacific Seabird Group, Girdwood, Alaska, February 2006. Published 2007 in *Marine Ecology Progress Series* Volume 352:199-309. **Available free of charge at** <http://www.int-res.com/abstracts/meps/v352/#theme>

THE SALISH SEA ECOSYSTEMS: STATUS AND IMPACTS OF CHANGES ON MARINE BIRDS. Scott Hatch (editor), Douglas F. Bertram, John L. Bower, and Patrick D. O'Hara (guest editors.) 2009. *Marine Ornithology*, Salish Sea Symposium Issue 37: 1-76. **Available free of charge at** <http://www.pacificseabirdgroup.org/publications/Hatch.etal.2008.pdf>

Information on presenting symposia: Pacific Seabird Group Symposia or Paper Sessions may be arranged by any member who is interested in a particular topic. Before planning a special session, refer to Meetings/Symposia Guidelines at www.pacificseabirdgroup.org. org; also contact the Scientific Program Chair for the annual meeting.

PUBLICATIONS OF THE PACIFIC SEABIRD GROUP

TECHNICAL PUBLICATIONS

EXXON VALDEZ OIL SPILL SEABIRD RESTORATION WORKSHOP. Kenneth I. Warheit, Craig S. Harrison, and George J. Divoky (editors). Exxon Valdez Restoration Project Final Report, Restoration Project 95038. PSG Technical Publication Number 1. 1997. *Available free of charge at* www.pacificseabirdgroup.org

METHODS FOR SURVEYING MARBLED MURRELETS IN FORESTS: A REVISED PROTOCOL FOR LAND MANAGEMENT AND RESEARCH. Pacific Seabird Group, Marbled Murrelet Technical Committee. PSG Technical Publication Number 2. 2003. *Available free of charge at* www.pacificseabirdgroup.org

PACIFIC SEABIRD GROUP COMMITTEE COORDINATORS FOR 2016-2017

Committees do much of PSG's business, as well as the conservation work for which PSG is respected. The committees welcome (and need) information concerning their issues. Please contact one of these Coordinators with input, updates, to apply for a small grant (see PSG's website for eligibility), or if you wish to help a committee with its work.

AWARDS COMMITTEE

Kathy Kuletz, email: [pastchair\[at\]pacificseabirdgroup.org](mailto:pastchair[at]pacificseabirdgroup.org); **Nina Karnovsky**, email: [chair\[at\]pacificseabirdgroup.org](mailto:chair[at]pacificseabirdgroup.org); and **Kyra Mills-Parker**, email: [programchair\[at\]pacificseabirdgroup.org](mailto:programchair[at]pacificseabirdgroup.org)

COMMUNICATIONS COMMITTEE

Joanna Smith, email: [communications\[at\]pacificseabirdgroup.org](mailto:communications[at]pacificseabirdgroup.org)

CONSERVATION COMMITTEE

Stan Senner, email: [conservation\[at\]pacificseabirdgroup.org](mailto:conservation[at]pacificseabirdgroup.org)

CORRESPONDING MEMBERS COMMITTEE

Melanie Steinkamp, email: [Melanie_Steinkamp\[at\]fws.gov](mailto:Melanie_Steinkamp[at]fws.gov)

CRAIG S. HARRISON CONSERVATION SMALL GRANTS COMMITTEE

Verena Gill, email: [verena.gill\[at\]gmail.com](mailto:verena.gill[at]gmail.com)

ELECTION COMMITTEE

Alan Burger, email: [PSG_Elections\[at\]pacificseabirdgroup.org](mailto:PSG_Elections[at]pacificseabirdgroup.org)

ENDOWMENT FUND TRUSTEES COMMITTEE

Martin Renner, email: [Treasurer\[at\]pacificseabirdgroup.org](mailto:Treasurer[at]pacificseabirdgroup.org); **Kenneth T. Briggs**; and **Jim Kushlan**

ALEUTIAN TERN TECHNICAL COMMITTEE

Susan Oehlers, email: [soehlers\[at\]fs.fed.us](mailto:soehlers[at]fs.fed.us) and **Michael Goldstein**, email: [migoldstein\[at\]uas.alaska.edu](mailto:migoldstein[at]uas.alaska.edu)

KITTLITZ'S MURRELET TECHNICAL COMMITTEE

John Piatt, email: [jpiatt\[at\]usgs.gov](mailto:jpiatt[at]usgs.gov) and **Sarah Schoen**, email: [sschoen\[at\]usgs.gov](mailto:sschoen[at]usgs.gov)

PSG COMMITTEE COORDINATORS FOR 2016-2017

MARBLED MURRELET TECHNICAL COMMITTEE

Kim Nelson, email: [kim_dot_nelson\[at\]oregonstate_dot_edu](mailto:kim_dot_nelson[at]oregonstate_dot_edu) and **Peter Harrison**, email: [peter_dot_harrison\[at\]dnr_dot_wa_dot_gov](mailto:peter_dot_harrison[at]dnr_dot_wa_dot_gov)

MARINE ORNITHOLOGY

Louise Blight, editor; email: [marine_dot_ornithology_dot_manager\[at\]gmail_dot_com](mailto:marine_dot_ornithology_dot_manager[at]gmail_dot_com)

NORTHEAST ASIA SEABIRD CONSERVATION COMMITTEE

Gregg Howald, email: [gregg_dot_howald\[at\]islandconservation_dot_org](mailto:gregg_dot_howald[at]islandconservation_dot_org) and **Daisuke Ochi**, email: [otthii\[at\]affrc_dot_go_dot_jp](mailto:otthii[at]affrc_dot_go_dot_jp)

SCRIPPS'S MURRELET AND GUADALUPE MURRELET TECHNICAL COMMITTEE

Shaye Wolf, email: [swolf\[at\]biologicaldiversity_dot_org](mailto:swolf[at]biologicaldiversity_dot_org) and **Harry R. Carter**, email: [carterhr\[at\]shaw_dot_ca](mailto:carterhr[at]shaw_dot_ca)

SEABIRD MONITORING COMMITTEE

Heather Renner, email: [heather_renner\[at\]fws_dot_gov](mailto:heather_renner[at]fws_dot_gov) and **Robb Kaler**, email: [robbkaler\[at\]gmail_dot_com](mailto:robbkaler[at]gmail_dot_com)

TUFTED PUFFIN TECHNICAL COMMITTEE

Peter Hodum, email: [WA_dot_OR_Rep\[at\]pacificseabirdgroup_dot_org](mailto:WA_dot_OR_Rep[at]pacificseabirdgroup_dot_org) and **Scott Pearson**, email: [scott_dot_pearson\[at\]dfw_dot_wa_dot_gov](mailto:scott_dot_pearson[at]dfw_dot_wa_dot_gov)

MEMBERSHIP COORDINATOR

Jennifer Lang, email: [membership\[at\]pacificseabirdgroup_dot_org](mailto:membership[at]pacificseabirdgroup_dot_org)

LISTSERV COORDINATOR

Verena Gill, email: [listserv\[at\]pacificseabirdgroup_dot_org](mailto:listserv[at]pacificseabirdgroup_dot_org)

WEBSITE COORDINATOR

Joanna Smith, email: [communications\[at\]pacificseabirdgroup_dot_org](mailto:communications[at]pacificseabirdgroup_dot_org)

PSG DELEGATE TO THE AGREEMENT ON THE CONSERVATION OF ALBATROSS AND PETRELS (ACAP)

Ken Morgan, email: [ken_dot_morgan\[at\]dfo_mpo_dot_gc_dot_ca](mailto:ken_dot_morgan[at]dfo_mpo_dot_gc_dot_ca)

PSG DELEGATES OF THE ORNITHOLOGICAL COUNCIL

Pat Baird, email: [pab7\[at\]sfu_dot_ca](mailto:pab7[at]sfu_dot_ca) and **Doug Forsell**, email: [DJForsell\[at\]aol_dot_com](mailto:DJForsell[at]aol_dot_com)

PSG DELEGATE TO THE AMERICAN BIRD CONSERVANCY

Melanie Steinkamp, email: [Melanie_Steinkamp\[at\]fws_dot_gov](mailto:Melanie_Steinkamp[at]fws_dot_gov)

PSG DELEGATE TO THE WORLD SEABIRD UNION

Kathy Kuletz, email: [pastchair\[at\]pacificseabirdgroup_dot_org](mailto:pastchair[at]pacificseabirdgroup_dot_org)

PSG LIFE MEMBERS 2015-2016

David Ainley
Sarah G. Allen
Daniel W. Anderson
Edgar P. Bailey
Pat Baird
Lisa Ballance
Don Bishop
Jennifer Boyce
Kenneth T. Briggs
Joanna Burger
Douglas Causey
Ellen W. Chu
Roger B. Clapp
Cheryl Conel*
Kathy Cousins
Theodore L. Cross
Jeff Davis
Robert H. Day
Tony DeGange
Jan Dierks
George Divoky
Kyle Elliott
Stewart Fefer
Lloyd Fitzpatrick
Elizabeth Flint
Douglas J. Forsell
Gail Fraser
Michael Fry
Adrian Gall

Lisa Haggblom
Judith Latta Hand
Craig S. Harrison
Scott A. Hatch
Mónica Herzig Zurcher
Nancy Hillstrand
Joel D. Hubbard
David B. Irons
Ronald Javitch
Sarah Keller
James G. King
John Konecny
Kathy Kuletz
James Kushlan
Lora Leschner
David B. Lewis
Peter Major
Eugene Y. Makishima
Sara Maxwell
Vivian Mendenhall
Godfrey Merlen
Patrick Mock
Ken Morgan
Edward C. Murphy
Maura Naughton
S. Kim Nelson
Yasuaki Niizuma
David R. Nysewander
Harou Ogi

Koji Ono
Steffen Oppel
Katie O'Reilly
Julia Parrish
Robert Pitman
C. John Ralph
Martin Renner
William P. Ritchie
Chad Roberts
Daniel D. Roby
Jan Roletto
Gerald A. Sanger
Palmer C. Sekora
Nanette Seto
Kouzi Shiomi
Joanna Smith
William E. Southern
Jeffrey A. Spendelow
Craig Strong
Takaki Terasawa
W. Breck Tyler
Enriqueta Velarde Gonzalez
Kees Vermeer
John and Jane Warriner
Yutaka Watanuki
Jennifer Wheeler
Jeff Williams

**deceased*

HONORARY MEMBER

John Cooper

RECIPIENTS OF PSG'S LIFETIME ACHIEVEMENT AWARD

David Ainley
Daniel W. Anderson
Philip and Myrtle Ashmole
James C. Bartonek
W.R.P. Bourne
Richard G.B. Brown*
G. Vernon Byrd
John Cooper

Malcolm Coulter*
John Croxall
Anthony Gaston
Charles Guiguet*
Michael P. Harris
Thomas R. Howell*
George L. Hunt, Jr.
Karl W. Kenyon*

James G. King
Haruo Ogi
John F. Piatt
Spencer G. Sealy
Larry B. Spear*
Robert E. Ricklefs
Miklos D.F. Udvardy*
John Warham*

**deceased*

RECIPIENTS OF PSG'S SPECIAL ACHIEVEMENT AWARD

Malcolm Coulter*
Franklin Gress
George J. Divoky
Craig S. Harrison
Hiroshi Hasegawa

Lora Leschner
Edward Melvin
Vivian Mendenhall
S. Kim Nelson
Arthur L. Sows

Steven M. Speich*
Mark J. Rauzon
Gus B. Van Vliet
Yutaka Watanuki
Lindsay C. Young

**deceased*

MEMBERSHIP INFORMATION

ANNUAL MEMEMBERSHIP

Members announcements of meetings, reduced rates on conferences and some Publications, subscription to the PSG listserv, and most importantly, the knowledge of contributing to the study and conservation of Pacific seabirds wherever they occur. Annual membership is for one calendar year and expires each year on December 31.

MEMBERSHIP RATES

Individual membership: \$40

Student membership: \$30

Life membership: \$1,200 (can be divided into 5 annual payments of \$240)

All Life member contributions are dedicated to PSG's Endowment Fund, a fund to support the publications of the PSG, principally *Marine Ornithology*.

TO JOIN OR RENEW MEMBERSHIP

To join the Pacific Group or renew your membership, please go to: <https://www.regonline.com/psgmembership>

To edit information on an existing membership, please follow the link above and login using the e-mail address that you used to renew your membership (which may be different from your mailing-list e-mail address).

If you have any questions, please notify our Membership Coordinator: membership@pacificseabirdgroup.org

The Membership Coordinator is responsible for maintaining the membership database, assisting members with updating their information, sending new member information to the listserv coordinator, etc.

MEMBER RESOURCES

For access to the Pacific Seabird Group mailing list, please contact the coordinator at: listserv@pacificseabirdgroup.org.

Connect with the Pacific Seabird Group through our Facebook page at: <https://www.facebook.com/PacificSeabirdGroup>

Follow PSG on Twitter at: <http://twitter.com/#!/pacificseabirds>

For access to the Pacific Seabird Group Listserv, please contact the coordinator at: listserv@pacificseabirdgroup.org

PSG EXECUTIVE COUNCIL, 2016-2017

OFFICERS

Chair	Nina Karnovsky , email: chair@pacificseabirdgroup.org
Past Chair	Kathy Kuletz , email: pastchair@pacificseabirdgroup.org
Chair-Elect	Kyra Mills-Parker , email: programchair@pacificseabirdgroup.org
Vice-Chair for Conservation	Stan Senner , email: conservation@pacificseabirdgroup.org
Treasurer	Martin Renner , email: treasurer@pacificseabirdgroup.org
Secretary	Jane Dolliver , email: secretary@pacificseabirdgroup.org

REGIONAL REPRESENTATIVES

Alaska and Russia	Robb Kaler , email: ak.ru_rep@pacificseabirdgroup.org
Canada	Stephanie Avery-Gomm , email: canada_rep@pacificseabirdgroup.org
Washington and Oregon	Peter Hodum , email: wa.or_rep@pacificseabirdgroup.org
Northern California	Anna Weinstein , email: noca_rep@pacificseabirdgroup.org
Latin America, Hawai'i	Yuri Albores-Barajas , email: soca.hi.la_rep@pacificseabirdgroup.org
Non-Pacific United States	Samantha Richman , email: us.exc_rep@pacificseabirdgroup.org
Europe/Africa	Ross Wanless , email: eu.af_rep@pacificseabirdgroup.org
Asia and Oceania	Kuniko Otsuki , email: asia.oc_rep@pacificseabirdgroup.org
Student Representative	Chris Tyson , email: student_rep@pacificseabirdgroup.org

COORDINATORS (non-voting)

Communications	Joanna Smith , email: communications@pacificseabirdgroup.org
Listserv Coordinator	Verena Gill , email: listserv@pacificseabirdgroup.org
Membership Coordinator	Jennifer Lang , email: membership@pacificseabirdgroup.org
Website Coordinator	Joanna Smith , email: communications@pacificseabirdgroup.org
Elections Coordinator	Alan Burger , email: PSG_elections@pacificseabirdgroup.org