

PERSpectives

Newsletter of the Pacific Estuarine Research Society

Summer 2015

PRESIDENT'S REPORT



Tony D'Andrea—PERS President.

I hope everyone is having an enjoyable and productive summer! Many PERSians have been actively involved in developing the upcoming program for the 23rd CERF Biennial Conference in Portland to be held in November, 2015, and it is looking to be another great conference. See CERF Corner in this issue for a quick update on the conference including the keynote and plenary sessions, the mentoring program planned for students and young professionals, and PERS-related activities at the conference. Be sure to also check out the short article contributed by Gary Williams, Past President, on the Tribal-First Nations special session planned for the meeting. In other CERF news, there are some leadership and governance changes that may impact PERS. I have also included a short summary of these changes in the CERF Corner section of the newsletter.

The 2015 PERS Annual meeting in Seattle introduced a new format designed to make PERS meetings more interactive than previous years. The format included poster previews by

poster lead authors before poster sessions, “fast talk” sessions followed by round table discussions with the authors, and special topics panels. The shift in format was in response to informal feedback from students and early career professionals at recent PERS meetings and from comments after the PERS 2014 Meeting. I want to give special thanks to Jennifer Ruesink, Si Simenstad, Jude Apple and the rest of the conference committee for championing the new format. As a participant, I appreciated that this format promoted more one-on-one interaction for presenters, and provided enhanced networking opportunities for students and early career members. The

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1. CERF 2015 in Portland

The scientific program for the 23rd CERF Biennial Conference in Portland this coming November is coming together and looks to be one of the largest CERF meetings to date. The last CERF Conference in Portland in 2009 was one its best! There were over 1400 abstracts submitted in 91 different session topics so it looks to be an exciting meeting. The program also includes a keynote speaker on Sunday, and Plenary sessions on Monday and Tuesday afternoons. The keynote speaker at the meeting is Beth Kerttula who is the Director of the National Ocean Council where she oversees efforts to implement National Ocean Policy. The topic for the Monday November 9 Plenary session will be Sea Level Rise building on the discussion at the Plenary held at the 2013 CERF meeting in San Diego. Speakers include Margaret Davidson (NOAA), Patty Glick (National Wildlife Federation), and Sandra Knight (Water Wonks LLC). On Tuesday November 10, the Plenary theme is Multiple Stressors and their Effects on Estuaries. Speakers include Joe Cone (Oregon Sea Grant), Wally Robinson (Boston University), and Jerry Schubel (Aquarium of the Pacific).

CERF will also have a mentoring program for students and early career professionals at the 2015 conference. PERS's own Ted DeWitt is one of the organizers of the program and hopes to build on the program initiated at the 2013 CERF Conference and create a more organized program for the Portland meeting. Mentees will be matched one-on-one with an experienced scientist to help them navigate the conference, network with conference attendees, and exchange feedback and ideas on professional activities and career development. In addition to being matched prior to the conference, a breakfast will be offered the first morning of the meeting for all mentors and mentees. I am proud to say that PERS is one of the co-sponsors of the mentor-mentee breakfast and was instrumental in getting similar sponsorship from all of the CERF Affiliate Societies to show support for our early career members. I encourage any PERSian attending the conference to volunteer to be a mentor. Details on the program can be found at the CERF 2015 website (<http://www.cerf.org/mentorship-program>).

There are a couple PERS activities that will also be at the

conference. We will be running a table in the main exhibit hall during the conference to promote PERS during the conference. We will need to supply signage or a poster with the PERS logo, promotional materials about membership and upcoming meetings, and volunteers to staff the table during the meeting. We ask that any PERS members planning to attend the CERF Conference let us know via email at pers.cerf@gmail.com and indicate whether you are also willing to volunteer a little time to share information about PERS during the meeting. All of the Affiliate Societies will also be putting together a basket of regional items for the silent auction to benefit student travel. Jude Apple, President Elect, is taking the lead on organizing the items for the basket so if you have some ideas or want to contribute to the PERS basket, contact Jude at japple@padillabay.gov.

2. Changing Leadership at CERF

Mark Wolf-Armstrong, the Executive Director of CERF, is stepping down from the position at the end of 2015. Mark has done an exceptional job in guiding CERF over the last several years and was instrumental in streamlining business services for the society and keeping CERF fiscally sound through the recent economic downturn. The CERF Governing Board has already established a search committee and will be looking for a replacement for Mark starting this fall. There are also some changes that the Governing Board is implementing for the new Executive Director and I expect there to be a press release sometime soon explaining the changes.

3. CERF Business Services Pilot

In the last couple of years, CERF has contracted with SBI Management Services (<http://sbims.com/>) to take over the day to day business of CERF, which has streamlined the work for the Executive Director, the CERF President, and the Governing Board. Over the past two CERF Governing Board (GB) meetings, members have discussed strategies to strengthen the relationship between CERF and the Affiliate Societies (AS). One of the ways in which this can be done is for CERF to provide a core set of business services to interested AS that cuts across our common activities and functions.

(President's Corner continued from page 1)

feedback we received after the meeting about the new format was very positive and we will keep that in mind in planning the 2016 PERS Annual Meeting in British Columbia. Feel free to continue to send feedback about the 2015 format, or other suggestions, to me or other members of the PERS Board. Speaking of the 2016 Meeting, Gary Williams has a contributed article in this issue about the meeting next year in Squamish, B.C., so everyone can put March 10-13, 2016 on their calendars!

There were a couple items that were discussed during the PERS Business Meeting at the conference that I also wanted to share with the membership. After more than 7 years of exemplary service to PERS as both Secretary and Treasurer, Jeannie Gilbert requested to continue as treasurer but asked that another member of PERS take over the Secretary duties. During the business meeting, Adrienne Stutes was nominated and elected by the membership as the new secretary. Adrienne has been a long-standing and active PERSian so we appreciate her offer to continue to support our Society. Look for the bio of Adrienne included in this issue of the newsletter. Welcome to the PERS board, Adrienne!

The other major item that occurred during the business meeting was the establishment of a new Professional Development committee chaired by Emily Lemagie (our Student At-Large Member on the PERS Board) and Stacy Galleher (Washington Department of Ecology). This committee was formed by the Board in response to the recognized need for more professional development opportunities as a part of our annual meetings. Currently, the committee is tasked with coming up with potential activities for the 2016 meeting. If you have any ideas or wish to be involved in the committee, please contact us at pers.cerf@gmail.com or contact Emily directly.

On a more somber note, PERS lost a member of our extended family recently when Bob Emmett, a former Past President, passed away after a prolonged fight against cancer. Steve Rumrill has contributed a thoughtful memorial to Bob that captures his contributions to PERS, his enthusiasm for estuaries, and his life outside of NOAA. For those of us who knew him, we will miss his warm smile, ready laugh, and seemingly tireless spirit. In recognition of Bob's

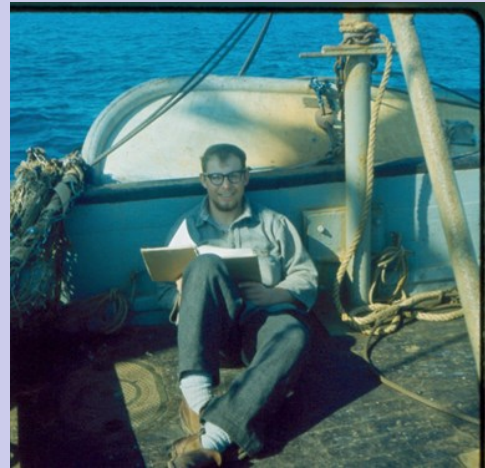
contributions to PERS, we have established the Bob Emmett Fund to support student research and travel.

I hope to see everyone in Portland this fall.

Tony D'Andrea, PERS President

A PERSian *Western Flyer* Experience

Contributed by Colin Levings, Past President



PERSians who attended the Seattle meeting banquet and the excellent talk by Kevin Bailey on the *Western Flyer* may have noted that Kevin mentioned I spent some time on the boat. I did indeed and thought it might be of interest to learn a little bit more about my link with the boat.

The story begins in 1962 when I was an undergraduate student in Zoology at the University of British Columbia (UBC) and near the end of my second year I needed money to continue studies. The International Pacific Halibut Commission (IPHC) advertised on campus that spring for biological technicians to work on charter vessels in Gulf of Alaska. I was one of a group of students hired to work on the project. Three trawlers out of Seattle were chartered and I was placed on the *Western Flyer*. Our job was to identify all fish, put tags on halibut, and record oceanographic data. There were a total of 7 people on the boat so it was rather cozy. We left Seattle in May 1962 and other than two breaks, over the 12 months the *Western Flyer* was home. In order to keep up study credits at UBC I took a correspondence course in Introductory Philosophy and spent many an hour on the galley table writing essays. Amazingly I passed that course! There were many adventures and learning experiences while on the *Western Flyer* as we worked the continental shelf from Ketchikan west across the Gulf of Alaska to the Aleutian Islands. When the weather was bad, which was often in the winter, we

(CERF Corner continued from page 2)

The set of services that several AS have expressed interest in include:

- Online membership registration, renewal, tracking (via a database) and communication with members (listservs), including electronic payments
- Conference registration, including electronic payments
- Hosting AS websites or HTML templates to have AS manage their own websites.

CERF is interested in providing support services to the AS. To implement this, a business pilot was set up using CAERS. SBI plans to use this pilot to estimate the costs of providing such services via CERF such that a fee-for-service structure can be discussed with the individual AS. This will be shared with the AS Presidents to be brought back to the membership for informed discussions. Although these are the services proposed in the business pilot, there are other types of business services that SBI can provide depending on the needs of the individual AS. The next steps are to share the draft white paper produced from the CAERS business pilot with the PERS Executive Board for internal review before initiating discussions with the full PERS membership.

(Western Flyer continued from page 3)

anchored in sheltered bays and waited it out. We went ashore and hiked the beaches, generally avoiding the grizzly bears and marvelling at the pristine landscape. One of the first estuaries I visited was at Port Etches in Prince William Sound. We went into port every 2 weeks for fuel, water, and other types of liquid replenishments.

My next encounter with the *Western Flyer* was in July 1964 when I was working as a summer student on the Fisheries Research Board of Canada's research vessel *G.B. Reed*, out of the Pacific Biological Station in Nanaimo. Once again in the Gulf of Alaska, we came across the *Western Flyer* broken down about half-way across the Gulf. On that occasion I took the photo of the *Western Flyer* rolling in the swells, loaded with King Crab traps. The U.S. Coast Guard towed her in for repairs.

The rest of the story picks up in 2008 when I was in Monterey, CA at a scientific meeting and I went into a bookstore on Cannery Row. I bought a copy of the *Log of the Sea of Cortez* by Steinbeck and realized that the ship on the cover was the *Western Flyer*. Thus began an interest in following up on the vessel, her connection with Ricketts and Steinbeck, and link to Kevin. It was somewhat ironic that it took me 45 years to make the connection – especially as in 1966 I spent 4 months in Monterey aboard Stanford University's oceanographic sailing ship *Te Vega*. While *Te Vega* was moored in Monterey I walked through Cannery Row and Doc Rickett's lab many times en route to our classes at Hopkins Marine Lab.

The *Western Flyer* experience really set me off on a successful career as a marine ecologist/oceanographer, both by providing cash to proceed with studies and also an incredible foundation for learning about marine ecology. I am indebted to Dick Myhre the biologist at IPHC who hired me for the work and started me on my career.

STUDENT CORNER

Student Profiles

Gabriela B. Zayas del Rio

THE SPATIAL VARIABILITY OF ZOOPLANKTON POPULATIONS AND THEIR FUNCTION AS BIOLOGICAL INDICATORS OF SEASONAL WATER SOURCES AND CONDITIONS IN THE SALISH SEA



Gabriela B. Zayas del Rio recently completed a post-baccalaureate program at Friday Harbor Laboratories, University of Washington. Her current re-

search focuses on the spatial variability of zooplankton populations and their function as biological indicators of seasonal water sources and conditions in the Salish Sea. She has found that salinity and dissolved oxygen have a significant effect on zooplankton abundance and composition during the fall season. Zooplankton abundance and composition was influenced by downwelling conditions, river flow and the fall transition, among other oceanographic

variables, greatly affect spatial zooplankton distribution. Previously, Gabriela participated in the NSF-funded Multicultural Initiative in the Marine Sciences (MIMSUP) program at Shannon Point Marine Center, Western Washington University (<http://www.wvu.edu/mimsup/>). She conducted research on the environmental conditions causing low-dissolved oxygen concentrations in Bellingham Bay. She presented this project at the 37th PERS annual meeting in Newport, OR. Gabriela just returned from presenting this research project at the 2015 Association for the Sciences of Limnology and Oceanography (ASLO) Aquatic Sciences Meeting in Granada, Spain. Gabriela is interested in finding more research opportunities to better prepare herself for graduate school in the upcoming years. She hopes to pursue a double masters in marine science and sustainable planning.

Natasha Christman



PHYSICAL AND MICROBIAL DRIVERS OF HYPOXIA IN BELLINGHAM BAY

Natasha Christman is an undergraduate at the University of Washington majoring in Biological Oceanography. Her research focuses on the responses of bacterioplankton communities to anthropogenic

stressors in coastal systems.

This year at the PERS Annual Meeting, she presented her work in the Bellingham Bay system investigating the behavior of low-dissolved oxygen and resident bacterial communities entitled “Physical and Microbial Drivers of Hypoxia in Bellingham Bay” for which she received the honor of best undergraduate presentation.

Natasha was recently awarded a Washington Research Foundation undergraduate research fellowship to investigate the response of bacterioplankton metabolism to ocean acidification in Bellingham Bay and the San Juan

islands under the guidance of Dr. Jude Apple and Dr. Jan Newton. She is looking forward to presenting this new work at the CERF 2015 Conference in Portland in November. After graduation from UW, Natasha hopes to attend graduate school to continue her pursuit of biological oceanography and marine microbial ecology.

Torian Jones



EFFECTS OF OCEAN ACIDIFICATION ON THE EMBRYONIC DEVELOPMENT OF DUNGENESS CRABS

Torian Jones is an undergraduate Biology student at Norfolk State University

(NSU), in Norfolk, VA. The aim of her research is to observe the effects of ocean acidification on the embryonic development of the *Metacarcinus magister*. Also known as the Dungeness crab, this species is the largest edible crab with a broad distribution from Alaska to California. This research was performed by treating crab embryos in three separate carbon dioxide concentrations and monitoring development. Mortality was only observed in about one-fourth of the embryos and did not significantly vary between treatments. Development was not significantly delayed; there was successful hatching in all three treatments and no significant variation in amount of hatching between treatments.

Torian conducted her research at Shannon Point Marine Center in Anacortes, WA while attending the Multicultural Initiative in the Marine Sciences Program (MIMSUP), a marine science internship sponsored by Western Washington University. Torian received runner up in the student poster category at the PERS Annual Meeting in 2014. In February, she attended the Association for the Sciences of Limnology and Oceanography (ASLO) meeting in Granada, Spain, where she was recognized with an award as one of the top outstanding presentations. At the 72nd Beta Kappa Chi/National Institute of Science Annual Meeting in Jackson, MS, Torian received third place in the undergraduate biology poster competition in early March. In late March, at her home

institution, Torian presented her research at their annual research symposium and received second place. She will graduate from NSU in December with her Bachelor's in Biology and is excited about continuing her education in a graduate program.

Introducing the new PERS Secretary – Adrienne Stutes



After more than 7 years of exemplary service to PERS as both Secretary and Treasurer, Jeannie Gilbert requested to continue as treasurer but asked that another member of PERSian take over the Secretary duties. During the business meeting at the 2015 PERS Annual Meeting, Adrienne Stutes was nominated and elected by the membership as the new secretary.

Adrienne Stutes is a marine scientist with over 10 years of research and consulting experience in marine fish and habitats. Adrienne specializes in marine water and sediment quality, phytoplankton, benthic ecology, and nearshore ecology and ecosystems. Her experience includes environmental analysis and permitting related to the Clean Water Act, the Endangered Species Act, the National Environmental Policy Act, and state environmental statutes. As a permitter, Adrienne evaluates nearshore ecosystems for project-related impacts and mitigation/restoration potential.

Welcome to the PERS Board, Adrienne! Members can contact Adrienne for PERS-related issues at pers.cert@gmail.com.

Special thanks to Taylor Shellfish Farms, Hilliard's Beer, University Seafood & Poultry and Si Simenstad for their support and sponsorship of the opening social event.

The meeting formally opened Friday morning with the plenary by **Dr. Colin Levings** (Scientist Emeritus at the DFO-UBC Centre for Aquaculture and Environmental Research) who gave a global overview of "The Estuary as a Challenge to Salmonid Survival". This was followed by an exciting whirlwind of posters, breakout sessions, lively discussions, and informative panels. The Friday evening banquet was a great complement to the day, featuring a talk by NOAA fisheries biologist **Dr. Kevin Bailey**, who discussed his recent book "Of Fish and Men: The Western Flyer, John Steinbeck, Doc Ricketts, and Pacific Fisheries".

2015 PERS Annual Meeting: Totally Talaris

Contributed by Jude Apple, PERS President-Elect

During the weekend of March 19-21, PERS hosted its 38th Annual Meeting at the Talaris Conference Center in Seattle. Nestled in the neighborhood northeast of the University of Washington campus, Talaris offered a self-contained retreat with grounds that offered mossy bracken, reflective ponds and lush rain gardens.

The setting of this year's meeting was not the only thing different. Under the creative and forward-thinking leadership of Jennifer Ruesink and Si Simenstad, the conference planning committee (which also included Jude Apple and Jeannie Gilbert) put together a new format for the annual meeting. The motive for this change was to create a more interactive and inclusive experience for the attendees. One feature of the meeting was "fast talk" sessions, where presenters had 10 slides advanced automatically at 30-second intervals, followed by 30 minutes of facilitated discussion in small groups around broad topics associated with the session presentations. Another feature was a series of organized panels, which consisted of 3-5 speakers on a common theme followed by audience-based discussions. Panel topics included: Status and trends of Puget Sound shoreline armoring; Principles of restoration across estuarine ecosystems; Navigating ecology, culture, and resilience in the Salish Sea; and Parasites, Geochemistry, and Estuarine Conservation. As with previous meetings, posters were featured prominently, and introduced at the beginning of the session by a one minute oral "preview", followed by an hour to mingle and interact with the presenters.

The meeting began on Thursday evening with the opening social hosted at the UW School of Aquatic and Fishery Sciences. Along with convivial conversations about estuarine science and reconnecting with friends and colleagues, the evening offered a wide range of delicacies from grilled oysters Rockefeller, wild caught salmon, to tasty sausages.



Facilitated discussion after one of the “fast talk” sessions during PERS 2015 Annual Meeting.

As with previous meetings, PERS has continued the tradition of supporting and rewarding student participation in the meeting. Numerous PERSians generously contributed their time to helping judge student presentations and provide feedback for the students on their work. Below are the student awards for the 2015 PERS meeting.

The Heinle Award is presented to the graduate student with the best overall presentation. This year’s Heinle Award recipient was Katrina Poppe (Western Washington University) for her presentation on “Carbon sequestration in Padilla Bay’s eelgrass meadows”.



Katrina Poppe (right) receiving the Heinle Award from Tony D’Andrea, PERS President (left)

Other graduate student awards went to first-place Emily Lemagie (Oregon State University) for her presentation on “The coastal dynamics of small, distributed river plumes under variable wind conditions” and runner-up Stuart Munsch (University of Washington) for his presentation on “Effects of seawall armoring on juvenile Pacific salmon diets in an urban estuarine embayment”. Graduate student posters included first-place Emily Grason (University of Washington) – “Of needles and haystacks: habitat mapping and citizen science to monitor European green crab in Washington state” and runner-up Vanessa Rose (Washington State University) – “Interactive effects of phosphorus and zooplankton grazing on harmful algal blooms in a shallow temperate lake”.

Undergraduate students also made a strong showing at the meeting, with first-place Natasha Christman (University of Washington) for her poster “Physical and microbial drivers of hypoxia in Bellingham Bay” and Olivia Graham (University of Washington Friday Harbor Laboratories) for her presentation talk on “Spatiotemporal variation in Pacific sand lance (*Ammodytes hexapterus*) abundance and demographics in the San Juan Channel”.

This was also the first year that funds were awarded from the Pete Eldridge Memorial fund to support student research. Erin Kincaid from Portland State University was the recipient of the award for her Master’s Project entitled “Testing whether characteristics of non-native tunicates induce predator avoidance on suspended structures but not benthic substrata”.

Finally, the meeting would not have been possible without the time and effort that many invested in making this gathering a success, including student volunteers, PERS Executive Board members, and all the PERSians who lent a helping hand. We also would like to recognize the generous contribution of the Sponsors for the 2015 PERS meeting (listed below). Thanks for a great meeting. See you in Squamish, B.C. next year.

Sponsors of the 2015 PERS meeting:

- GL Williams & Associates
- Padilla Bay Foundation
- Washington Sea Grant
- Washington Department of Fish and Wildlife
- Washington Department of Ecology
- UW College of the Environment
- UW School of Aquatic and Fishery Sciences
- Wetland Ecosystem Team
- Charles “Si” Simenstad
- Taylor Shellfish Farms
- Hilliard’s Beer
- University Seafood and Poultry

Uniquely Pacific Northwest: A Special Tribal-First Nations Session Announced for the CERF 2015 Meeting

Contributed by Gary Williams, PERS Past President

I am pleased to report that there will be a Tribal and First Nations Session at the CERF 2016 Conference in Portland on November 9, 2015. As many PERSians are well aware, the Tribes in Oregon and Washington and First Nations in British Columbia have made the Pacific Northwest coast and estuaries their home for thousands of years, which has led to the development of a rich cultural and spiritual relationship. The relationship has included resource harvesting for food, medicine, building material, and clothing from the native estuarine flora and fauna; establishment of a deep traditional knowledge that has been passed on from generation to generation, often in the form of storytelling; and inspired a unique art form that is based on the species that have provided for their existence. This intimate relationship, developed and sustained at least since the last glaciation in our region, has fostered a very different perspective on the use and management of estuarine and coastal environments that can complement and enrich our scientific understanding of the processes and functions that are the focus of estuarine research.

Hopefully this will be the beginning of a new chapter in CERF, where a fruitful dialogue will flourish that incorporates indigenous perspectives and knowledge with scientific investigation and research, yielding an improved approach to the Grand Challenges facing us and helping to secure a more sustainable future. I would like to thank Catherine Corbett for her committed efforts in bringing the Columbia River tribes into the session and helping to make an idea I brought to the CERF Executive Board during my term as the PERS representative a reality. As an enticement to joining us in this new venture, the session agenda is presented below for your information.

ROLE OF HISTORICAL USE AND CULTURAL VALUES IN TRIBAL AND FIRST NATION GOVERNANCE, RESEARCH AND RESTORATION

Abstract: This session will showcase how Tribes and First Nations across the Pacific Northwest interweave cultural values into their governance structure and their research, restoration, and management approaches to ensure

sustainable native species and First Foods. It will provide an overview of Pacific Northwest Tribes and First Nations; historical use of estuaries and coasts; and how cultural values are integrated into governance and resource management for the maintenance of First Foods, focusing on anadromous fish recovery, shellfish habitat enhancement and aquatic resource management. The session will also provide networking opportunities with Tribes and First Nations to other researchers and resource managers.

Agenda –Monday, November 9, 2015

- 8:00** Invocation –Davis Washines, Yakama Nation
- 8:15** Introduction to the Session – Charles Hudson, Columbia River Inter-Tribal Fish Commission
- 8:30** Historical Use of Estuaries and Coasts, Place-based Perspectives – Roy Sampsel invited, Institute of Tribal Governments (formerly)
- 8:45** Confederated Tribes of the Umatilla Nation - Introduction of First Foods and Interweaving of Cultural Values into Governance and Resource Management – Eric Quaempts, Confederated Tribes of the Umatilla Nation
- 9:15** Okanagan Nation Alliance – Economic Analysis in the Okanagan Basin - Importance and Value of an Unchanneled Section of the Okanagan River- Richard Bussanich, Syilx Nation
- 9:30** Sto:lo Nation – Fisheries And Traditional Resource Management on the Fraser River– Ernie Victor, Sto:lo Nation
- 9:45** Break
- 10:15** Upper Columbia United Tribes – Restoring Anadromous Fish Species to the Upper Columbia – D.R. Michel, Upper Columbia United Tribes
- 10:30** Cowlitz Indian Tribe – Estuarine Restoration is Integral to the Health and Cultural Restoration of a Tribal Nation - Taylor Aalvik, Cowlitz Indian Tribe
- 10:45** Upper Snake River Tribes – Struggle to Overcome Lack of Support for Resource Protection and Restoration - Heather Ray, Upper Snake River Tribes Foundation
- 11:00** Nuu-chah-nulth Nations – Re-Building our Fishing Culture: Ca?inwa (Gooseneck Barnacle) Fishery off the West Coast of Vancouver Island – Alex Gagne, T’aaq-wiihak Fisheries Coordinator
- 11:15** Wy-Kan-Ush-Mi Wa-Kish-Wit (Spirit of the Salmon) - Tribal Salmon Restoration Plan - Zach Penny, Columbia River Inter-Tribal Fish Commission
- 11:30** Lummi Nation – Navigating Ecology, Culture, and Education in the Salish Sea Research Center - Marco Hatch, Northwest Indian College
- 11:45** Our Columbia Watershed: Developing multi-faceted tribal/university partnerships for research, education and workforce development – Vanessa Green (OHSU) and Tana Atchley (CRITFC)
- 12:00** Demonstrating First Foods Celebration and Networking Session

PERS 2016 39th Annual Meeting Set for March 10-13 in Squamish, B.C.

Contributed by Gary Williams on behalf of the PERS 2016 Conference team

The 2016 PERS Annual Meeting in March 2016 will be held at the Cheakamus Centre in Squamish, British Columbia. The Cheakamus Centre is situated on 165 hectares (420 acres) of designated ecological reserve land in Paradise Valley, Brackendale, just minutes from the Sea to Sky highway that connects Vancouver and Whistler. The reserve features old growth forest, wild salmon streams, amphibian ponds, and supports the largest recorded concentration of wintering bald eagles in North America. The Cheakamus Centre is located at the centre of the Dave Marshall Salmon Reserve, a federally designated habitat providing spawning and rearing channels for five species of Pacific salmon (chum, coho, pink, chinook and steelhead). This truly is an estuarine setting made for PERSians to get together!

The Cheakamus Centre, operated by the North Vancouver School District, supports an outdoor school and recreation program. With the recent addition of the Blueshore Financial Learning Centre, a LEED Platinum sustainable building, the Centre has expanded into conferences, corporate meetings, and weddings. The Learning Centre is , designed as a 9000 square foot “tree house” in the midst of the forest on the Cheakamus River. It will provide the venue for our traditional PERS Thursday night social, Friday night banquet, and meeting dining. A separate meeting and oral presentation area that can accommodate 125 people is available at the nearby The Melody Hall, and the adjacent Fireside Lounge provides a spacious area for posters. There are several separate meeting rooms and covered outdoor space for use as well.

Cheakamus Learning Centre (CLC)



CLC venue for PERS Social and Banquet



Melody Hall venue for PERS main meeting



Fireside Lounge, west and east, for posters



The on-site accommodation is dorm style bunk beds with shared bathrooms, which ranges from the self-contained Spawkus House at the south of the complex that houses up to 40 people in 20 dorm rooms with 2 dormitory style washrooms and 2 private toilets, to 10 more rustic heated wood cabins, with bunk beds and 2 shared washrooms, that each house 10-16 people. Staying in the dorm style accommodation at the Cheakamus Centre has the advantage of being in the centre of the forested reserve. For those wanting more privacy and comfort, a block of 40 rooms have been reserved at the Executive Suites Hotel and Resort in Squamish. The cost for on-site accommodation is \$30 per night per person (\$15 extra for bedding, pillow and towel) and Executive Suites is \$99 per night. The contract with PERS requires a minimum of 40 to stay in the on-site accommodation and the block of 40 Executive Suite rooms will be

held until February 9, 2016.

The venue offers the opportunity to “get back to estuary” and provides a requested alternative to the urban settings that have been used for PERS Annual Meetings held in B.C. The Squamish Estuary, typical of a British Columbia fjord estuary, is located at the head of Howe Sound about 30 miles north of Vancouver. It is fed by the Squamish River and its two major tributaries, the Cheakamus and Mamquam, draining approximately 1400 square miles. The drive up the Sea to Sky Highway along Howe Sound is spectacular and the Squamish area is dominated by the Chief, a mountain face of granite that dominates the landscape.

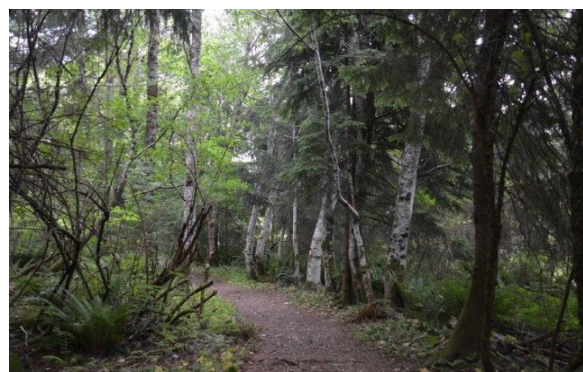
Cabin dorm style accommodation for 10-16



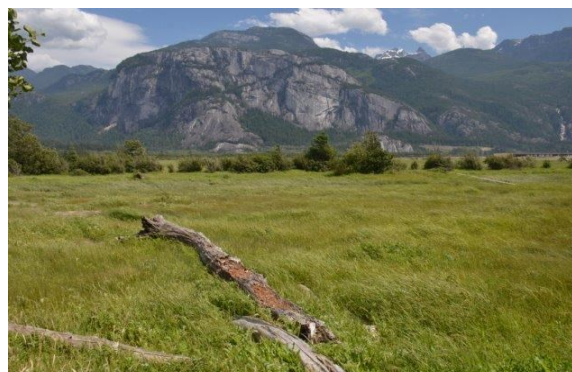
Spawkus House dorm accommodation for 40



Dike Trails in the Squamish Estuary



Estuarine marsh with the “Chief” in background



The Squamish estuary is the centre of the Squamish First Nation traditional territory so there is potential to include indigenous research as part of the PERS meeting program.

Squamish is a resource based community and forestry and mining have been the main economic drivers for the community. As with many coastal communities, resource extraction, transportation, particularly rail and road; diking; port development, and fishing have presented challenges to estuarine management. The Squamish Estuary has benefited from several estuarine restoration projects, involving marsh, eelgrass, dike breaching and culvert installations to improve hydraulic conditions, and rehabilitation of log sorting and storage sites. Squamish is also the location of Quest University Canada, a private, not-for-profit, secular liberal arts and science institution. We hope to involve it in our meeting as well.

We are fortunate to have Edith Tobe, Executive Director, Squamish Watershed Society, agree to help with organizing our 2016 Annual Meeting. Edith has been a strong local champion in restoration efforts and has intimate knowledge of the estuary. She also has attended PERS meetings in the past, so we look forward to working with her.

Our organizing committee currently consists of PERSians Cynthia Durance, Colin Levings and I, along with Edith. Each brings a personal knowledge and expertise of the Squamish Estuary, which we hope will help to create a stimulating meeting program that will be

enjoyed by attending PERSians. In light of the setting, we will be investigating a more interactive program format, including field trips out into the estuary.

This year we will be soliciting sponsorship to help defray the costs of the meeting. More information on the meeting, program and costs will be forth coming.

Looking forward to seeing you at the Cheakamus Centre, Squamish, in March 2016!

Bob Emmett (1955 – 2015) / Requiem for a True Force of Nature

Contributed by Steve Rumrill, Oregon Department of Fish and Wildlife

A full moon rises, brightly illuminated by the setting sun as



it sinks slowly below the horizon out beyond the Pacific Ocean. Stark, white, and heavy in the sky, the massive pull of lunar gravity reaches out across 400,000 km of emptiness to pull the water out of the bays and estuaries. As the tidal waters begin to ebb, the estuary is unveiled and its mysteries are revealed.

The Pacific Estuarine Research Society recently lost a talented scientist and distinguished member of our family. Dr. Robert “Bob” Emmett passed away on April 27th after a long and courageous battle with cancer.

Bob was a creative fishery scientist, a productive colleague, a wise mentor, and a true force of nature along the Pacific Northwest coast for 36 years during his professional career with the NOAA Northwest Fishery Science Center. Most of those years were based at the NOAA/NWFSC Point Adams Field Station (Hammond, Oregon) where Bob documented the dynamics of forage fish populations throughout the Columbia River Estuary and the nearshore Pacific Ocean, and at the Hatfield Marine Science Center (Newport, Oregon) where he worked on sardines, anchovies, salmon, and other pelagic fishes.

As a fishery scientist, Bob developed and fostered great

appreciation for estuaries as important and essential components of marine ecosystems. Bob extended that appreciation to become a lifelong friend to PERS. He was elected as the President of PERS during 1996-98 and served as a member of the PERS Executive Board from 1994 to 1999. He also served as a long-term member of the Management Commission for the South Slough National Estuarine Research Reserve (1994-2012).

During his tenure as president and a board member for PERS, Bob recognized the need to clearly articulate the distinct characteristics and environmental stressors experienced by estuaries located along the west coast. He guided several members of the society through the process to recognize the traits that make our estuaries special, and they worked together to write and publish an important manuscript that summarizes the regional characteristics of our estuaries.

During preparation of that historic manuscript, Bob unambiguously understood the necessity to balance the competing demands for ecosystem services with the capacities of the estuaries to remain healthy and productive. Bob and his PERS colleagues wrote that “*the problem for estuarine resource managers is to allow utilization of estuarine habitats for economic resources (transportation, aquaculture, water use, resource harvesting, etc.) while enhancing, rebuilding, and protecting the natural estuarine resources (birds, marshes, fishes, water quality, etc.) that humans value and enjoy*” (Emmett *et al.*, 2000).

Bob was also a distinguished, recognized, and well-respected regional spokesperson for the living resources of estuaries. He earned that reputation honestly, by hard work, diligence, and with his keen eye for detail. During the late 1980s, Bob compiled technical information about forty-two species of fishes and invertebrates that inhabit thirty-two west coast estuaries. Working along with team members from NOAA/Silver Spring and the Point Hammond Field Station, Bob pulled together the two-part seminal report titled “*Distribution and abundance of fishes and invertebrates in west coast estuaries.*” This important and monumental document was compiled as the west coast regional contribution to the NOAA Estuarine Living Marine Resources Program, and the report provides over 560 pages of historical and recent information about the spatial distribution, abundance, reproduction, and life-history stages for commercial and recreationally important species. Bob gave us an invaluable reference to gauge the changing populations and communities all along the west coast, and his contributions became the “*go-to*” documents for many estuarine ecologists and fishery biologists.

Bob lead a full and active life, and he was an enthusiastic supporter of lifelong learning who worked hard to achieve excellence in all of his accomplishments. In 1994 Bob received a Presidential Award for his work on the restoration of Trestle Bay at the mouth of the Columbia River, and he earned his Ph.D. in Fisheries from Oregon

State University in 2006. Bob's personal life was also creative and productive, and he excelled at cultivating a bountiful garden and in fermenting a terrific glass of fine wine. Bob touched us all with his open heart, beaming smile, boisterous laugh, and the twinkle in his eye.

On May 3rd, Bob's ashes were set adrift during an outgoing tide at mouth of the Columbia River.

So after completing its fleeting arc across the night sky, the full moon finally sets, now a bit yellowed with age, older and wiser with the experience of an elder as it disappears from view out beyond the sea. Its massive pull of gravity, however, is undiminished, still a true force of nature, yet redirected at this time to another distant shore. Ocean waters rebound, the lunar tidal wave advances, and surging waters begin to flood back into the bays and estuaries. These are new waters, refreshed and replenished by the mixing and their collaboration with the sea. As the tidal waters rise, the estuaries are refilled and renewed. And at the same time they are re-concealed and shrouded in a new cloak of wetness and aqueous life, their mysteries once again hidden for yet another day.

In May 2015, PERS created the **Bob Emmett Fund** to support student research and travel in recognition of Bob's contributions to PERS and his passionate support for students. Details on the fund can be found at http://www.pers-erf.org/?page_id=93 and donations can be made at http://www.pers-erf.org/?page_id=22.

Emmett, R., and R. Llanso, J. Newton, R. Thom, M. Hornberger, C. Morgan, C. Levings, A. Copping, and P. Fishman. 2000. Geographic signatures of North American west coast estuaries. *Estuaries* 23 (6): 765-792

M.E. Monaco, M.E., D.M. Nelson, R.L. Emmett, and S.A. Hinton. 1990. Distribution and abundance of fishes and invertebrates in west coast estuaries. Volume I: Data Summaries. *Estuarine Living Marine Resources Rep. No. 4*, NOAA/NOS Strategic Environmental Assessment Division, Rockville, MD. 232 pp.

Emmett, R.L., S.A. Hinton, S.L. Stone, and M.E. Monaco. 1991. Distribution and abundance of fishes and invertebrates in west coast estuaries. Volume II: Species Life History Summaries. *Estuarine Living Marine Resources Rep. No. 8*, NOAA/NOS Strategic Environmental Assessment Division, Rockville, MD. 329 pp.

Updates to PERS Website and Student Funding Accounts

Contributed by Jeannie Gilbert, PERS Treasurer

Webpage

In the recent weeks I have been updating our website to a new WordPress responsive site. What this means for you the visitor is a webpage that you can view on any of your devices. It is looking good and we do have a blog which we will be getting some posts into soon. The blog will be the place to look for the latest updates and announcements. The PERS president will be blogging about CERF primarily, as well as any other updates he wishes to pass along. The social media committee will be keeping us updated with the latest news of note. Over the coming weeks we will be adding a calendar where the meeting notices, deadlines, and other dates like upcoming meetings (CERF and others that might be of interest). So keep checking back at www.pers-erf.org as we continue to add new content and usability to our site.

Changes to Student Funds Accounts

The checking account that all awards are drawn from is being renamed the "Student Travel and Research Fund", to avoid confusion with several other awards. This change will simplify tracking any and all funds in an Excel file, allowing the PERS Board to designate funds for distribution. The update to the website includes a separate page and tab for donations to PERS funds. There is also a subpage on the Donations tab that contains a short bio of our current in- memory- of- members and a button for "Other" where someone could donate money in memory of a member not listed. Another option is an undesignated donation that can be for research/ travel, or a 50/50 split to the two funds with no particular designation (i.e. donations for Travel or Research awards with no specific memorial identified). PERS will then send each donor a letter and receipt acknowledging the donors request.

For specific funds, changes include:

Heinle Award – the \$500 travel award for student travel to the biennial CERF Conference has in the past been drawn from the Millicent Quammon Fund. With the creation a single account for to Travel and Research, the Heinle award will now come from undesignated travel funds.

Millicent Quammon Fund – donations to this fund will still support travel awards and may be used to fund the Heinle award.

**PACIFIC
ESTUARINE
RESEARCH
SOCIETY**

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Eldridge Research Fund— the original \$2500 that was placed in this fund will be tracked as funds “In memory of Peter Eldridge”. When funds are awarded from this fund , they will be given “In memory of Pete Eldridge”. All future donations in Pete’s name will be tracked in the same way.

Bob Emmett Fund— Funds will be awarded as research or travel. Similar to the Eldridge fund, awards from this fund will be designated “In memory of Bob Emmett”.

**Enjoy the rest of your summer and hope to see you in Portland
in November for the CERF 2015 Conference!**

Tony D'Andrea, PERS President

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