



NAME

NORTHWEST AQUATIC & MARINE EDUCATORS

Presents



Photo Credit: John Fowler

CONNECTING COMMUNITIES THROUGH WATER

July 13 - 17, 2014

**“The Barn” Bandon Community Center
Bandon, Oregon**

Bandon Community Center

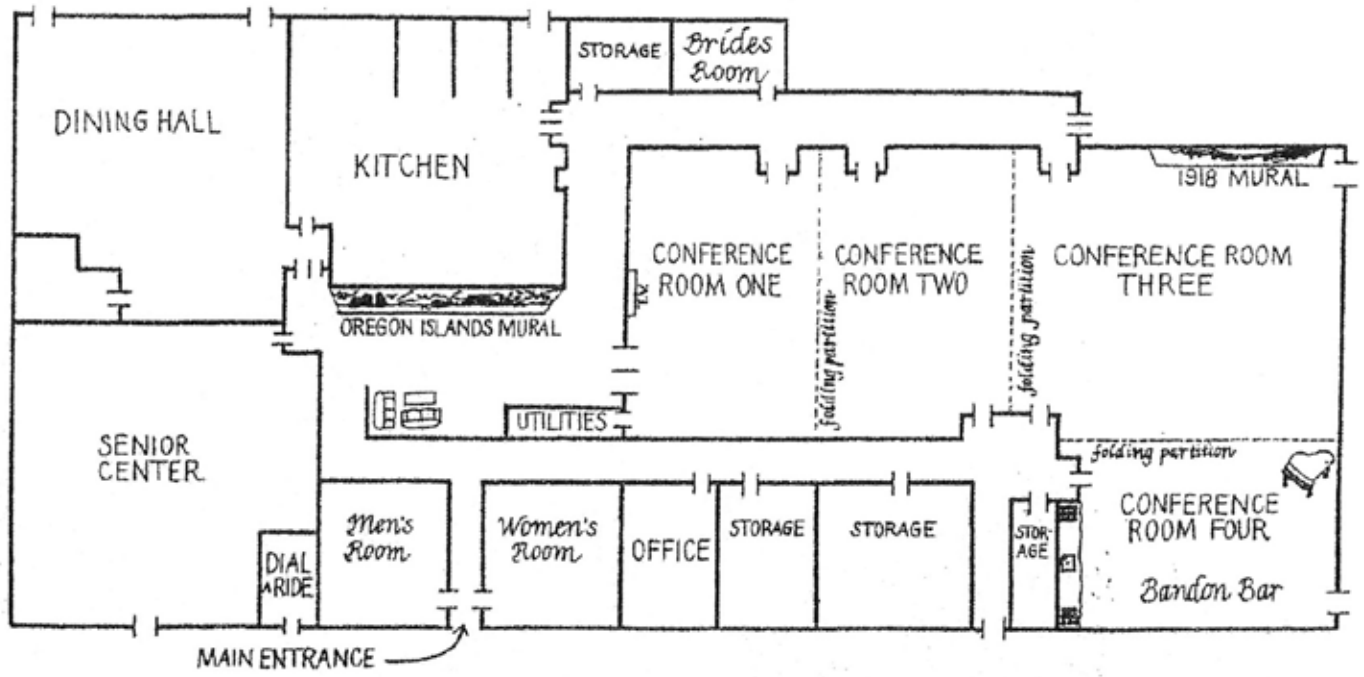


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Photo Credit: John Fowler

Welcome to Bandon by the Sea!

Call it Bandon or call it Bandon-by-the-Sea. However you refer to us; our seacoast town is sure to delight you with its charm, its scenic beauty, its rich opportunities for recreation, relaxation, and its warmth shown you by its people. The scenic beauty which Bandon offers is unparalleled. Enjoy birding, surfing, crabbing, fishing, mushroom picking...and so much more! We are sure you'll find Bandon very enjoyable!

Conference Strands:

Diversity

Do your programs reflect the diverse communities of your area? How do you make sure your class curriculum is culturally sensitive and relevant? Are you working with minorities or underserved populations? Share your tips and techniques to fully engage these populations in aquatic sciences.

Stewardship

Share how to transform your class or local community into stewards. Community action and citizen science programs are a new wave in teaching aquatic sciences. Share success stories and lessons learned. What tools do learners need to become the next generation of stewards?

STEAM—Science, Technology, Engineering, Art, and Mathematics

Do you use technology to reach new audiences? How do you use art in your programming to teach aquatic science, engineering, and mathematics? Share stories, resources, and example work of how components of STEAM are transforming your classroom or program.

NAME Conference Traditions

With thirty-eight conferences under our collective belt, we can't help but have a few traditions. If you are a first-time NAME member or conference attendee (and even if you aren't), read on...

NAME Board Meeting: This is a gathering of NAME's leaders (at least, the elected and appointed ones). All NAME members are invited to witness leadership in action, come meet the core members of NAME, bring your suggestions, new ideas and complaints.

SeaFaire: Consider it an idea and innovation garage sale, free of charge. Browse brochures, flyers, curriculum, and lots of free giveaways. SeaFaire will be held Monday evening, from 7 to 8:30 pm following our dinner and chapter meetings. Conference attendees and local organizations are welcome to reserve a table and show off during this event.

Annual NAME Auction: Always a conference highlight, the auction raises funds for NAME's mini-grant and scholarship programs. Auction items are varied and donated by members and local organizations, and you never know what will be on the table. There is normally both a silent and live auction. Our banquet theme this year plays off of Washed Ashore's concept of trash turned to art. Design your own piece of marine and aquatic inspired art from found items and beach debris to show off your creativity. Bonus points if it's wearable!

Chapter Meetings: These meetings give members of each province and state a chance to meet together and plan the upcoming year. Find out what great stuff is happening in your own backyard.

NAME General Business Meeting: U.S. non-profit law requires a general membership meeting once each year, and this is it. Don't miss this opportunity to learn about the latest NAME innovations, programs, and plans for the future. Be involved.

NAME Awards Banquet: Don't miss a great evening capped off with our annual fund-raising auction, food, friends, and fun!

General Conference Information

NAME Registration/Information Desk: Registration and check-in will begin at 3:00 pm on Sunday, July 13. The NAME Registration/Information Desk will be in the lobby of the Barn. Registration will be open each morning and throughout the day as needed

Presenters: Please check in at the registration table and double check the media set up prior to speaking. Don't hesitate to ask for support if you need it.

SeaFaire: SeaFaire will be held Monday evening, from 7 to 8:30 pm following our dinner and chapter meetings. Conference attendees and local organizations are welcome to reserve a table and show off during this event.

Message Board: There will be a message board at the registration table if you want to coordinate rides or simply leave people messages.

NAME tags: Wear 'em! They are your tickets to events, food, and other cool stuff. Besides, it helps you hide the fact that you can't quite remember that person you met last year, and helps people you meet for the first time remember you next year.

Meals: All meals will be provided for registered participants and their registered guests. Most meals will be served in the Barn. If you would like to purchase meals for a guest, please see someone at the registration table. The opening night Reception will be held on Sunday, July 13 at Washed Ashore. We will enjoy the re-opening of a new set of exhibits at this gallery and workshop of marine debris turned into powerful art. The reception will include 1 drink and appetizers. Washed Ashore is located inside the Harbor Town Events Center at 325 2nd St SE, Bandon. The barbecue on Tuesday evening, July 15, will be held at the West Shelter of Bullards Beach State Park. Please bring your own beverages to enjoy.

Guest Meal Tickets: If you have purchased additional tickets for your guest/s for meals, banquet, auction, etc., you will receive a name tag for your guest at registration when you check-in. Please use these for entrance to these events.

Field Trips: If you have signed up for a field trip, please confirm your slot when you check in at the registration table and check for departure time and carpool information. If you haven't signed up yet, we encourage you to check to see if there are any openings left...we'd love to have you join us for an experience that will highlight the rich environment of the southern Oregon coast!

Beverage Cup/Water Bottle: We are dedicated to the Green Conference philosophy. We have made the decision to avoid providing beverage cups for breaks and the like. Please, don't forget to carry your own cup with you.

Event Waiver Form: Just in case you snuck by us, make sure you have a signed Event Waiver Form turned into Registration. These forms are protection for NAME and you!



Photo Credit: Marc Shandro

Conference Planning Committee

The following people put in countless hours to coordinate everything that made this conference a success: speakers, field trips, presentations, lodging, food, the auction, registration, and all the other details that often go unnoticed.

Jenna Kulluson

Joy Tally

Fawn Custer

Giovannina Souers

Danielle Asson

Jennifer Magnusson

Bill Hanshumaker

Woody Moses

About Northwest Aquatic & Marine Educators

NAME was founded in 1976 and became a chapter of the National Marine Educators Association in 1980. In the early 1990s NAME expanded its mission and membership, recognizing that marine and aquatic ecosystems, environments, and issues are linked together, and that educators working in both environments share common beliefs and strategies. NAME includes members from Alaska, British Columbia, Washington, and Oregon. Annual NAME conferences rotate through these states and province. In addition, each state or province offers local professional development opportunities for formal and non-formal educators throughout the year.

NAME is a “family” of educators who believe:

- Every human on earth should be water-literate
- In using the allure of water, to enrich and facilitate learning
- That by sharing our knowledge and experience with others we will create a community of informed stewards
- NAME has an innovative and energetic Board of Directors guided by dedicated members from Alaska, British Columbia, Washington and Oregon to fulfill our mission and goals.

Our Goals are:

- To encourage professional growth by offering quality workshops, conferences, field experiences, and in-service opportunities in the Pacific Northwest
- To share information and education materials focused on marine and aquatic environments and issues
- To support the growing network of NAME educators

NAME is a 501(c)(3) nonprofit organization.

2013-2014 NAME Leadership

Board of Directors

Joy Tally, President, OR
Giovannina Souers, President-elect, WA
Anne Stewart, Past-president, BC
Maile Sullivan, Secretary, WA
Rob Coats, Treasurer, OR
Bill Hanshumaker, NMEA Representative, OR
Robin Dublin, Alaska Director
Jonathan Hultquist, British Columbia Co-director
Natasha Ewing, British Columbia Co-director
Jenna Kulluson, Oregon Director
Amy Sprenger, Washington Co-Director
Casey Ralston, Washington Co-Director

Committee Chairs

Orlay Johnson, Communications Chair, WA
Fawn Custer, Mini-grants/Scholarships Chair, OR
Amy Sprenger, Flashmail Manager, WA
Jennifer Magnusson, Webmaster, WA
Gretchen Glaub, Membership Chair, WA
Alan Rammer, Award Chair, WA



Photo Credit: themom51

Concurrent Sessions

Monday • 10:00 - 11:00 am • Session 1	
Room 1 Stewardship	Estuary Explorers Kiley McDermott, Science Outreach Specialist, South Slough National Estuarine Research Reserve
Room 2 Stewardship	What do the “land” and new science standards have to do with monitoring the “water”shed? Cory Samia, Water and Wetlands Educator, Water Resources Education Center Vancouver, WA
Room 3 STEAM	The Oregon Coast Education Program - Tools for Inquiry Tom Gaskill, Education Program Lead, South Slough NERR Cait Goodwin, OCEP coordinator
Room 4 Diversity	Exploring Urban Watersheds: Connecting Title 1 and University Students Jennifer Howell, Undergraduate Student, University of Alaska Anchorage
Monday • 11:15 am - 12:15 pm • Session 2	
Room 1 Stewardship	StreamWebs-Designing and Experiencing a Freshwater School Field Trip Renee O'Neill, Program Coordinator at Oregon State University Jim Grano, Siuslaw Salmon and Watershed Studies Project Manager at Siuslaw School District
Room 2 Diversity	Plankton to Porpoises: A College Science Course for the Disengaged Vanessa Hunt, Professor, Science Education at Central Washington University
Room 3 STEAM	Oregon Coast Regional STEM Hub: Opportunities and Resources Tracy Crews, Marine Education Manager at Oregon Sea Grant Ruth McDonald, Partnership Liaison LCSD Rachael Bashor, School Liaison and Partnership Coordinator
Monday • 1:30 - 3:00 pm • Session 3	
Room 1/Field Stewardship	Positive Change - Communicating and Interpreting Earthquake and Tsunami Awareness and Preparedness Doug Louensbery, NSF Graduate Research Fellow, Oregon State University
Room 2 STEAM	Passwords That'll Get You Into Classrooms - an intro to the NGSS Suzi Wong Swint, Watershed Education Program Coordinator at Snohomish County
Room 3 STEAM	5 Water Properties Activities for the Classroom Rob Coats, Jackson Middle School Science Teacher (Room 3, Strand: STEAM) Hands-On
Monday • 3:15 - 4:15 pm • Session 4	
Room 1 Stewardship	Interpreting Oil Spill Preparedness and other Challenging Topics Laurie Morrow, Senior Education Manager Alaska SeaLife Center
Room 2 Diversity/STEAM	Dynamic Partnerships aided by Web Technology Suzi Wong Swint, Watershed Education Program Coordinator at Snohomish County
Room 3 Stewardship	CoastWatch-Citizen Science Monitoring for Marine Debris and More Fawn Custer, Volunteer Coordinator, Oregon Shores-CoastWatch
Room 4 STEAM	Exploring the Microworld - Light Traps & You Tom Gaskill, Education Program Lead, South Slough National Estuarine Research Reserve
Monday • 7:00 pm • Poster Session	
Rooms 3 & 4	Environmental Education and Exploration: The McKenzie Watershed Anna Morgan, Critters & Currents Team Member University of Oregon Environmental Leadership Program
Rooms 3 & 4	Engaging Students in Marine Debris Efforts Utilizing an Integrated Science, Technology, Engineering, Art, Mathematics, and Social Studies Curriculum Tracy Crews Marine Education Manager Oregon Sea Grant
Rooms 3 & 4	Connecting School Communities: Stewardship School Program Elissa Wells, 4-H Educator Oregon State University
Rooms 3 & 4	Identification of Sources of Micro-Plastic Debris in the Puget Sound by Citizen Scientists: Early Methodological Adventures and Logistics Vanessa Hunt, Professor, Science Education Central Washington University
Rooms 3 & 4	Dose of reality: What can we learn from pet owners to guide more effective environmental stewardship of pharmaceutical and personal care products (PPCPs)? Jennifer Lam, Kayla-Maria Martin, & Sam Chan
Rooms 3 & 4	Pole to pole - Virtual Field Trips from the Alaska SeaLife Center Laurie Morrow, Senior Education Manager Alaska SeaLife Center
Rooms 3 & 4	Climate change Declaration Vicki Osis, Retired

Concurrent Sessions

Tuesday • 2:30 - 4:30 pm • Session 5	
Room 1/Field Stewardship	<i>Pedagogy of Place</i> <i>Rachael Bashor</i> , School Liaison, Oregon Coast Aquarium
Room 2/Field STEAM	<i>Engaging Students in STEAM Using Underwater Robots</i> <i>Tracy Crews</i> , Marine Education Manager, Oregon Sea Grant <i>Cait Goodwin</i> , Marine Educator OSU-HMSC
Room 3/Field Stewardship	<i>Designing and Experiencing a Freshwater School Field Trip</i> <i>Renee O'Neill</i> , Program Coordinator at Oregon State University <i>Jim Grano</i> , Siuslaw Salmon and Watershed Studies Project Manager at Siuslaw School District
Room 4 Stewardship	<i>Learn to Identify Sea Star Wasting Syndrome</i> <i>Melissa Miner</i> , Multi-Agency Rocky Intertidal Network (MARINe)
Wednesday • 11:15 am - 12:15 pm • Session 6	
Room 1 Diversity	<i>Learning To Dance - An Informal Educator's Deep Dive Into Teaching In a K-12 Setting</i> <i>Leihla Scharlau</i> , Science Enrichment Teacher, Griffin School
Room 2 STEAM	<i>Wave Energy Engineer</i> <i>Ruby Moon</i> , Marine Renewable Energy Associate, OSU Sea Grant Extension
Room 3 STEAM	<i>PSA's as an Art Form and Stewardship</i> <i>Eva LaMar</i> , Teacher 5th grade Riverbend Elementary SPS
Wednesday • 1:15 - 2:15 pm • Session 7	
Room 1 Stewardship	<i>Beached Marine Critters: Getting the Public and Students Involved</i> <i>Danielle Asson</i> , OSU Master's Project
Room 2 STEAM	<i>Diving into the Mammalian Diving Reflex</i> <i>Patrick Willis</i> , 4-H Faculty, OSU Extension
Room 4	<i>2015 – 2020 NAME Strategic plan</i> <i>Giovannina Souers</i> , Broadening Participation Coordinator at the Seattle Aquarium and NAME President-Elect
Wednesday • 2:30 - 3:30 pm • Session 8	
Room 2 STEAM	<i>Next Generation Science Standards (NGSS) in Marine Education</i> <i>Patrick Willis</i> , 4-H Faculty, OSU Extension
Room 4 STEAM	<i>Aliens Amongst Us - Easy ways to interest kids in science, biology and evolution through the amazing life of squid, octopus, cuttlefish and other Cephalopods.</i> <i>Orlay Johnson</i> , Fish Biologist for NOAA



Photo Credit: TeresaC

Conference at a Glance

Saturday, July 12

7:00 am–4:30pm (varies)—Newport Field Trips
5:00 pmNAME Board Arrival
7:00 pmBoard Dinner

Sunday, July 13

8:30–1:00 pmNAME Board of Directors meeting
10:00 am–4:00 pm (varies)—Pre-conference Workshops
3:00–5:00 pmRegistration opens
5:00–7:00 pmOpening Reception at Washed Ashore

Monday, July 14

7:45–8:45 amBreakfast and Registration
9:00–10:00 amWelcome & Speaker: Shawn Rowe
10:00–11:00 amConcurrent Session 1
11:15 am–12:15 pm ...Concurrent Session 2
12:30–1:30 pmLunch
1:30–3:00 pmConcurrent Session 3
3:15–4:15 pmConcurrent Session 4
5:30–7:00 pmDinner and Chapter meetings
7:00 pmPoster Session & SeaFaire

Tuesday, July 15

7:15–7:45 amTo-Go Breakfast and Registration
8:00 am–12:30 pm (varies)—Field Trips
12:30 pmLunch
1:15–2:15 pmSpeaker: Port Orford Community Panel
2:30–4:30 pmConcurrent Session 5
6:00 pmBBQ Dinner at Bullards Beach State Park

Wednesday, July 16

7:45–8:45 amBreakfast and Registration
9:00–10:00 amNAME Annual General Meeting
10:00–11:00 amSpeaker: Mark Lewis
11:15 am–12:15 pm ...Concurrent Session 6
12:15–1:15 pmLunch
1:15–2:15 pmConcurrent Session 7
2:30–3:30 pmConcurrent Session 8
6:00 pmBanquet Dinner, Live Auction
Live Band, “*Done Deal*”

Thursday, July 17

8:45–9:00 amBreakfast
9:00–10:00 amClosing Remarks & Slideshow
10:00 am–1:30 pmPost-conference Field Trip



Photo Credit: Visitor7

Conference Details

Sunday, July 13

8:30 am–1:00 pmNAME Board of Directors meeting (Room 1)

The NAME Board of Directors will meet in Room 1 of the Barn. Board meetings are open to any NAME member who would like to sit in and hear what's happening in the organization at the grass-roots level!

10:00 am – 4:00 pm ...Pre-conference Workshop

Coastal Observation and Seabird Survey Team (COASST) Training Session

Instructor: Erika Frost (Room 3)

Suggested Audience: Beachwalkers and Birders

Help make a difference for the environment by collecting data for the Coastal Observation and Seabird Survey Team (COASST). COASST is a citizen science project dedicated to involving volunteers in the collection of high quality data on the status of coastal beaches, and trends of seabirds. Our goal is to assist government agencies and other organizations in making informed management and conservation decisions, and promote proactive citizen involvement and action. COASST volunteers systematically count and identify bird carcasses that wash ashore along ocean beaches from northern California to Alaska.

At this training session, hear how COASST started, learn how to use the custom Beached Birds field guide, and try out your new skills with some actual specimens. Volunteers need NO experience with birds, just a commitment to survey a specific beach (about ¾ mile) each month. **Please plan to provide \$20 if you would like to take home a COASST volunteer kit complete with a COASST Beached Birds field guide.*

3:00–5:00 pmRegistration Opens (Lobby of the Barn)

- Please bring in your Auction Item to drop it off here
- Field trip check-in, volunteer sign up
- Message Board Available

5:00–7:00 pmOpening Reception (Washed Ashore)

We will enjoy the re-opening of a new set of exhibits at this gallery and workshop of marine debris turned into powerful art. Enjoy a welcome from NAME, powerful art and the sounds of *Sweet Deal*. The reception will include 1 drink and appetizers. Washed Ashore is located inside the Harbor Town Events Center at 325 2nd St SE, Bandon



Photo Credit: Douglas Van Bossuyt

Monday, July 14

7:45–8:45 amBreakfast (Room 4) and Registration (Lobby)

9:00-10:00 amPlenary Speaker (Sprague Theater)

Dr. Shawn Rowe, Associate Professor OSU; Free-Choice Learning Lead, Oregon Sea Grant. (Strand: Diversity)

Marine Education By Whom, For Whom, and in Whose Interests: Learning from Diversity

We have learned from Oregon Sea Grant and the Free-Choice Learning Lab's, past work with bilingual families in our Las OLAS program, and tribal educators in our Guardians of the Forest project. By reflecting on learner experiences and my own learning in doing these projects, I hope to provoke the audience to reflect on their own efforts to work with diverse audiences asking basic questions for developing critical environmental literacy.

Shawn Rowe is serving as interim Sea Grant Education program leader and director of Sea Grant's Visitor Center at OSU's Hatfield Marine Science Center. As a Marine Education Learning Specialist, Dr. Rowe engages in research on free-choice learning - the kind of learning people do outside classrooms and other formal education settings. He uses the Visitor Center as a laboratory to study learning behavior. Dr. Rowe has a background in applied linguistics (studying how people learn language) and developmental psychology in education, and holds a PhD from Washington University in St. Louis.

10:00–11:00 am***Concurrent session 1: 60 minute sessions***

Estuary Explorers

Kiley McDermott, Science Outreach Specialist, South Slough National Estuarine Research Reserve (Room 1, Strand: Stewardship)

South Slough National Estuarine Research Reserve is bringing the estuary to Empire schools through a series of experiential adventures from the campus, to the remnants of a wooded wetland next to the soccer field, alongside a neglected creek, to the docks on the bay across the street. Join AmeriCorps volunteer, Kylie McDermott, in reflecting on the process of adapting South Slough science-based curriculum to engage students with their neighborhood in a new light. K-3, 4-6, 7-8

What do the "land" and new science standards have to do with monitoring the "water"shed?

Cory Samia, Water and Wetlands Educator, Water Resources Education Center Vancouver, WA (Room 2, Strand: Stewardship)

Over the last 15 years, 33,000 Clark County, Washington students have monitored water quality and macroinvertebrates in surface water near their schools. A diverse program, the Watershed Monitoring Network includes grades 1 through 12 from 5 different school districts with an average 48% of students participating in the free and reduced lunch program. The Network was awarded a Washington Department of Ecology grant in 2013. Exciting changes and challenges in the program include adding land monitoring activities, aligning activities to NGSS and Common Core standards, offering Watershed Family Festivals and supporting school action projects that improve storm water. K-3, 4-6, 7-8, Aquaria/museum/nature center

Monday, July 14, Continued

10:00–11:00 am***Concurrent session 1: 60 minute sessions, continued***

The Oregon Coast Education Program - Tools for Inquiry

Tom Gaskill, Education Program Lead, South Slough NERR

Cait Goodwin, OCEP coordinator (Room 3, Strand: STEAM)

The Oregon Coast Education Program, with the support of the NOAA B-WET program, has been working since 2009 on the development of education modules and the support of best practices in coastal and marine field-based and classroom education. Presenters Tom Gaskill and Cait Goodwin will share some of the exciting results of this collaborative project including on-line tools available through the NAME website. In particular, we will explore the use of the National Estuarine Research Reserve's data visualization tools designed by educators and scientists to explore water quality monitoring data in real-time.

Exploring Urban Watersheds: Connecting Title 1 and University Students

Jennifer Howell, Undergraduate Student, University of Alaska Anchorage (Room 4, Strand: Diversity)

The University of Alaska Anchorage (UAA) campus and the Title 1 Elementary School, Chester Valley, share a connection in that they are both situated along the banks of the urban stream, Chester Creek. A partnership between the elementary school and the Environmental Science class at UAA is engaging the Chester Valley students with the natural features of their school yard while allowing the UAA students to cement their new-found knowledge of environmental processes and systems by leading groups of 4th and 5th grade students in hands-on, inquiry based modules. The first phase conducted during the Spring 2014 semester will result in an Earth Day event on April 18th. At this presentation the results of that event, the analysis of the feedback from the students and the plan to move to a school-year long engagement plan will be shared. 4-6, College

11:15 am–12:15 pm ...***Concurrent session 2: 60 minute sessions***

StreamWebs-Designing and Experiencing a Freshwater School Field Trip

Renee O'Neill, Program Coordinator at Oregon State University

Jim Grano, Siuslaw Salmon and Watershed Studies Project Manager at Siuslaw School District (Room 1, Strand: Stewardship)

Wear two hats for this excursion: one as teacher and one as student. The goal is to learn how to structure a typical stream stewardship field trip and experience it like your students would. StreamWebs is a student watershed stewardship network that links teachers and organizations to resources for conducting real world watershed monitoring projects. This indoor presentation will introduce participants to the online watershed database that facilitates data analysis, peer-to-peer learning, and content sharing. On Tuesday, participants will also go into the field and be given hands-on training in water quality, aquatic macroinvertebrates, photo point monitoring, and riparian surveys. Participants will enter the data that they collect into the StreamWebs database and learn strategies for using this tool with their students. K-3, 4-6, 7-8, 9-12, General public, Families

Monday, July 14, Continued

11:15 am–12:15 pm ... **Concurrent session 2: 60 minute sessions, continued**

Plankton to Porpoises: A College Science Course for the Disengaged

Vanessa Hunt, Professor, Science Education at Central Washington University (Room 2, Strand: Diversity)

This presentation describes a freshman level general education course at an urban university with students who are under-performing academically at the college level. By using the organisms of Puget Sound as a lens through which to teach research, writing and presentation skills as well as a variety of new approaches to engage these science-phobic students, Vanessa will summarize successes and areas of difficulty in the class. 9-12, College

Oregon Coast Regional STEM Hub: Opportunities and Resources

Tracy Crews, Marine Education Manager at Oregon Sea Grant

Ruth McDonald, Partnership Liaison LCSD

Rachael Bashor, School Liaison and Partnership Coordinator (Room 3, Strand: STEAM)

The Oregon Coast Regional STEM Hub is funded by the Oregon Department of Education and is composed of over 40 partners dedicated to supporting high quality STEM experiences for Oregon Coast K-14 students. Join us as we discuss opportunities for teacher, student, parent, and community involvement and learn about the wide range of resources available through the hub, including: online resources, educator PD opportunities, student-centered activities, and educational kits. K-3, 4-6, 7-8, 9-12, College, Families

12:30–1:30 pmLunch (Room 4)

1:30–3:00 pm **Concurrent Session 3: 90 minute sessions**

Positive Change - Communicating and Interpreting Earthquake and Tsunami Awareness and Preparedness

Doug Lowensbery, NSF Graduate Research Fellow, Oregon State University (Room 1/Field, Strand: Stewardship)

As educators, we want to share tangible learning experiences with learners of all ages in coastal environments. How then do we, as educators, develop our own meaningful understandings of earthquake and tsunami awareness and preparedness? How do we interpret and communicate these understandings to the various audiences that we teach in formal and informal settings?

Our presentation will inform and inspire participants with relevant answers to these questions through personal stories, practical experiences, and tested strategies. We will examine the science, the social factors, and the personal experiences that move us, collectively, toward positive change through knowledge and empowerment. K-3, 4-6, 7-8, 9-12, General public, Families, Aquaria/museum/nature center

Monday, July 14, Continued

1:30–3:00 pm **Concurrent Session 3: 90 minute sessions, continued**

Passwords That'll Get You Into Classrooms - an intro to the NGSS

Suzi Wong Swint, Watershed Education Program Coordinator at Snohomish County
(Room 2, Strand: STEAM)

Are you a non-formal educator trying to share your amazing programs with teachers and schools? Have you sent letters of introduction and program flyers to teachers that have mostly gone unanswered? Getting into schools is easier if you know the right “passwords” and Next Generation Science Standards (NGSS) are an important part of this. In this session Suzi will share tips that’ll help get you invited into the classroom! You’ll see how the NGSS are organized and get tips for aligning your existing lessons and activities with the NGSS. non-formal educators who work with K-5 All

5 Water Properties Activities for the Classroom

Rob Coats, Jackson Middle School Science Teacher (Room 3, Strand: STEAM)
Hands-On

Five very hands-on activities regarding the properties of water that are fun, surprising, messy, cheap and essential to our understanding of aquatic life. Make connections from each activity to broad ecological implications. Have Fun! 4-12, Families, General Public

3:15–4:15 pm **Concurrent Session 4: 60 minute sessions**

Interpreting Oil Spill Preparedness and other Challenging Topics

Laurie Morrow, Senior Education Manager, Alaska Sea Life Center
(Room 1, Strand: Stewardship)

When an oil spill occurs, are you prepared to talk to the public about the complex and thoughtful processes that went into preparing for exploration, extraction and potential hazards? Our online module trains informal science educators to discuss oil use, risks, spill remediation, and monitoring - especially as they relate to the increasingly accessible Arctic region. 9-12, College, General public, Aquaria/museum/nature center

Dynamic Partnerships aided by Web Technology

Suzi Wong Swint, Watershed Education Program Coordinator at Snohomish County
(Room 2, Strand: Diversity/STEAM)

Case studies showing how 81 cities/counties in the Puget Sound region and 12 ECO Net groups across Puget Sound (Education Outreach & Communication Networks-mostly composed of non-profit organizations) have come together over the past seven years to form a unique, truly dynamic coalition where we voluntarily coordinate our priorities, research, messages, and projects. This spring we have created a web portal to support our communications and networking. The web publishing platform we chose is FREE and really user friendly. Learn how your group can have a web portal for sharing in just 30 minutes! All

Monday, July 14, Continued

3:15–4:15 pm **Concurrent Session 4: 60 minute sessions, continued**

CoastWatch-Citizen Science Monitoring for Marine Debris and More

Fawn Custer, Volunteer Coordinator, Oregon Shores-CoastWatch
(Room 3, Strand: Stewardship)

Many volunteers prefer to have their time spent collecting usable information. As a formal teacher or youth volunteer coordinator you can help students earn their service hours and learn to be good stewards of our ocean. These opportunities are not just for Oregonians. In this session, participants will learn of the numerous stewardship opportunities. K-3, 4-6, 7-8, 9-12, College, General public, Families, Aquaria/museum

Exploring the Microworld - Light Traps & You

Tom Gaskill, Education Program Lead, South Slough National Estuarine Research Reserve
(Room 4, Strand: STEAM)

The world of plankton holds tremendous potential for the study of structure, form, and function as an amazing array of macro and microscopic life may be found in a fairly small sample. In this workshop, we will dive into the world of light traps as a means of collecting interesting assemblages of plankton for further study. Participants will have the opportunity to build their own simple, low-cost light trap and develop an inquiry-based investigation technique for use with students. We will use simple field-scopes to observe locally collected light trap samples and explore potential projects. 4-6, 7-8, 9-12

5:30–7:00 pm Dinner and Chapter meetings

7:00–8:30 pm Poster Session (Rooms 3 & 4)

Environmental Education and Exploration: The McKenzie Watershed

Anna Morgan, Critters & Currents Team Member University of Oregon Environmental Leadership Program

Engaging Students in Marine Debris Efforts Utilizing an Integrated Science, Technology, Engineering, Art, Mathematics, and Social Studies Curriculum

Tracy Crews Marine Education Manager Oregon Sea Grant

Connecting School Communities: Stewardship School Program

Elissa Wells, 4-H Educator Oregon State University

Identification of Sources of Micro-Plastic Debris in the Puget Sound by Citizen Scientists: Early Methodological Adventures and Logistics

Vanessa Hunt, Professor, Science Education Central Washington University

Dose of reality: What can we learn from pet owners to guide more effective environmental stewardship of pharmaceutical and personal care products (PPCPs)?

Jennifer Lam, Kayla-Maria Martin, & Sam Chan

Pole to pole - Virtual Field Trips from the Alaska SeaLife Center

Laurie Morrow, Senior Education Manager, Alaska SeaLife Center

Climate change Declaration

Vicki Osis, Retired

Tuesday, July 15

7:15–7:45 amTo-Go Breakfast and Registration

8:00 am–12:30 pm (varies)—Field Trips

12:30 pmLunch

1:15-2:15 pmPlenary Speakers (Sprague Theater)

Port Orford Community Panel: A Community Working Together-Education/ Outreach efforts, fishing community perspectives, and science

(Strand: Stewardship)

Learn how this community has come together to agree upon the Redfish Rocks Marine Reserve and work as a community to keep their community members up on relevant research and involved in the decision making process.

Tyson Rasor, Project Coordinator at Redfish Rocks Community Team. He has a B.S. in Park and Natural Resource Management from Cal State in Chico. Tyson's work with Oregon Sea Grant focused on coastal tourism.

Terry Mock, owner of Ocean Mountain Ranch, and partner in the Archangel Ancient Trees Archive project, representative for the terrestrial side of things within the Port Orford Community Stewardship Area.

Leesa Cobb, Executive Director of the Port Orford Ocean Resource Team, and wife of a commercial fisherman.

Aaron Longton, CEO of Port Orford Sustainable and commercial fisherman.

2:30–4:30 pm***Concurrent Session 5: 90 – 120 minute sessions***

Pedagogy of Place

Rachael Bashor, School Liaison, Oregon Coast Aquarium
(Room 1/Field, Strand: Stewardship, Time: 120 minutes)

Come learn creative ways to foster a sense of place during your field experiences with students, adults and families. During this session, we will explore creative ways to imbed writing, art and reflection into any outdoor discovery so that participants experience an intrinsic connection to the place in cooperation with learning the science and natural history. Activities in this session can easily be adapted to a variety of audiences and to meet current K-12 trends such as Common Core State Standards. K-3, 4-6, 7-8, 9-12, College, Families, Aquaria/museum/nature center

Engaging Students in STEAM Using Underwater Robots

Tracy Crews, Marine Education Manager, Oregon Sea Grant
Cait Goodwin, Marine Educator OSU-HMSC
(Room 2/Field, Strand: STEAM, Time: 120 minutes)

The Oregon Regional Marine Advanced Technology Education (MATE) Remotely Operated Vehicle (ROV) program is designed to integrate STEAM and improve 21st Century skills in students, in a fun and relevant way. Learn ways you can become involved and see this program through the eyes of a student as you work in small groups to design, construct, and test your own mini-underwater robot. 4-6, 7-8, 9-12, College

Tuesday, July 15, Continued

2:30–4:30 pm**Concurrent Session 5: 90 – 120 minute sessions, continued**

Designing and Experiencing a Freshwater School Field Trip

Renee O'Neill, Program Coordinator at Oregon State University

Jim Grano, Siuslaw Salmon and Watershed Studies Project Manager at Siuslaw School District

(Room 3/Field, Strand: Stewardship, Time: 120 minutes)

This is a continuation of the Monday program. Wear two hats for this excursion: one as teacher and one as student. Learn how to structure a typical stream stewardship field trip and experience it like your students would. Explore the riparian zone, collect macro invertebrates, monitor water quality and have fun learning.

StreamWebs is a student watershed stewardship network that links teachers and organizations to resources for conducting real world watershed monitoring projects. Participants will enter the data that they collect into the StreamWebs database and learn strategies for using this tool with their students. K-12

Learn to Identify Sea Star Wasting Syndrome

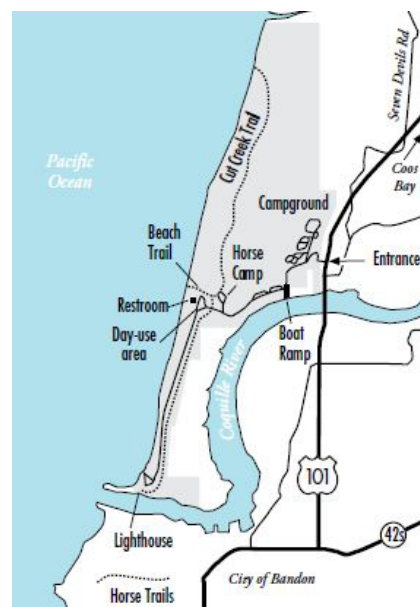
Melissa Miner, Multi-Agency Rocky Intertidal Network (MARINE)

(Room 4, Strand: Stewardship, Time: 120 minutes)

You are invited to attend a two-hour informational session on the very worrisome phenomenon of “sea star wasting syndrome”. Volunteers can help along the pacific coast. Melissa Miner, research associate at the University of California Santa Cruz, will describe sea star wasting syndrome and explain monitoring protocols. The latest report is up from .5% to an increase of 5% just along the Oregon coast this spring. Because wasting syndrome can lead to rapid declines in sea star numbers, it is essential to survey as many areas as possible prior to or during the wasting event. These “pre-decline” surveys will allow scientists to estimate impacts of wasting syndrome on sea star populations, and document recovery over time. Join Melissa to learn how you, your students or organization can help. 4-6, 7-8, 9-12, College, General public, Families, Aquaria/museum/nature center

6:00 pmBBQ Dinner (Bullards Beach State Park)

The barbecue will be held at the West Shelter of Bullards Beach State Park. Travel north on Highway 101 from the Barn, across the Coquille River Bridge. Turn left into Bullards Beach State Park (look for brown signs). Follow main road to sign for West Shelter on right. There will be a good old-fashioned sing along and space for your favorite lawn games. Everyone is encouraged to bring acoustic instruments and songs, as well as games. Please bring your own beverages to enjoy.



Wednesday, July 16

7:45–8:45 amBreakfast and Registration

9:00–10:00 amNAME Speaker & AGM

10:00–11:00 amPlenary Speaker (Sprague Theater)

Mark Lewis, Director of STEM for Oregon (Strand: STEAM)

STEM, STEAM, STEMM, STREAM ... What does this all mean?

Across the nation there is growing awareness that literacy in science, technology, engineering, and mathematics (STEM) is critical; not just for economic prosperity, but also for youth to be full participants in an increasing complex, and technologically-rich world. As Director of STEM for Oregon, Mark will dispel some common myths about STEM and will challenge STEM practitioners in the field to play an essential role in transforming the broader educational ecosystem. Our conversation will push our thinking beyond the acronyms of STEM, STEAM, STREAM, STEMM, etc. to outcomes that matter most, and illuminate some of the systemic barriers and effective strategies to achieve those outcomes.

A lifelong educator and advocate for youth, Mark is driven by a passion for the critical role that education has in shaping the lives and prosperity of individuals and communities. With an undergraduate degree from Caltech and a Master's Degree in Education, he brings over 25 years of experience in STEM — from his first career as a satellite engineer, to teaching high school science and mathematics, to working with hundreds of teachers and administrators to transform educational experiences and outcomes for our most vulnerable students and rural communities. Prior to joining the Office of the Chief Education Officer and the OEIB, Mark served as Washington STEM's Senior Program Officer, stewarding its investment strategy and supporting a network of regional STEM leaders across Washington State. Additional professional experiences include university administration as Director of Institutional Research and Development, and more than ten years leading community development initiatives in the South Pacific and the Middle East.

11:15 am–12:15 pm ... ***Concurrent Session 6: 60 minute sessions***

Learning To Dance - An Informal Educator's Deep Dive Into Teaching In a K-12 Setting

Leihla Scharlau, Science Enrichment Teacher, Griffin School (Room 1, Strand: Diversity)

No one prepares informal educators for teaching in a formal k-12 setting. We have no formal training on meeting NGSS or the Common Core unless we seek it out on our own. So what happens when an informal educator is asked to teach a science based enrichment class for 4th-8th-grade students solo? Come find out! Be prepared to play a bit along the way and you might even go home with a few new ideas to use in your own work. 4-8 aquaria/museum/nature center

Wednesday, July 16, Continued

11:15 am–12:15 pm ... **Concurrent Session 6: 60 minute sessions, continued**

Wave Energy Engineer

Ruby Moon, Marine Renewable Energy Associate, OSU Sea Grant Extension
(Room 2, Strand: STEAM)

An adaptation on an experiment designed by Bill Hanshumaker and Alan Peril regarding how to build a model WEC. The experiment was adapted into an easy to use curriculum that demonstrates how to build a model wave energy device and connects the state science and engineer standards the will be met with the curriculum implementation. 7-8, 9-12

PSA's as an Art Form and Stewardship

Eva LaMar, Teacher 5th grade Riverbend Elementary SPS (Room 3, Strand: STEAM)

Take the aquatic stewardship to the next level by having students create PSA's and share via the social media. Harness the power of social medial to spread the message that the students share about stewardship. If you have a computer and a basic camera (or video able phone), then you can create video content in the classroom by using green screen tools and basic video editing software. It's inexpensive, it's powerful, and it's motivating. See how a high-poverty, low access to technology 4th grade classroom created a series of PSA's about watershed stewardship. Come learn about digital images available online for free and let's see if we can expand this project to include many more Pacific Northwest Schools. College, general public families aquaria/museum/nature center

12:15–1:15 pmLunch (Room 4)

1:15–2:45 pm **Concurrent Session 7: 60-90 minute sessions**

Beached Marine Critters: Getting the Public and Students Involved

Danielle Asson, OSU Master's Project (Room 1, Strand: Stewardship, Time: 90 minutes)

Getting people excited about science is one of the best ways to ensure they continue learning and participating. I created a protocol to allow citizen scientists to identify and report the stranded marine critters they find on the beach, and allow them to participate in ongoing scientific research about the Oregon Coast. This presentation will focus on the protocol and its development and future directions. Additionally, the audience will be given the opportunity to use the protocol as well as be introduced to potential ways in which the protocol and associated data can be utilized in an educational setting. 4-6, 7-8, 9-12, College, General public, Families, Aquaria/museum/nature center

Diving into the Mammalian Diving Reflex

Patrick Willis, 4-H Faculty, OSU Extension (Room 2, Strand: STEAM, Time: 60 minutes)

Do you remember that feeling of jumping into a cold lake on a hot summer day where it literally takes your breath away? That feeling can be described as the mammalian diving reflex, a special ability found in mammals that regulates breathing and energy when submerged in cold water (temperatures below 10° Celsius). This reflex is much stronger in marine mammals (seals, otters, dolphins, etc.) but is also present in other mammals, including humans. Be prepared to get you face wet in this very hands-on/face-on activity. 4-6, 7-8, 9-12, College, General public, Families, Aquaria/museum/nature center

Wednesday, July 16, Continued

1:15–2:45 pm ***Concurrent Session 7: 60-90 minute sessions, continued***

2015 – 2020 NAME Strategic plan

Giovannina Souers, Broadening Participation Coordinator at the Seattle Aquarium and NAME President-Elect (Room 4, Time: 60 minutes)

A small group of NAME board members have been working to create an outline for our 2015 – 2020 NAME Strategic plan. We are looking for member feedback and ideas to help us flesh out this plan and learn the most effective way to implement it for you – our members. Please join in this interactive discussion to learn more about the 2015 – 2020 NAME strategic plan and become a part of its creation.

2:30–3:30 pm ***Concurrent Session 8: 60 minute sessions***

Next Generation Science Standards (NGSS) in Marine Education

Patrick Willis, 4-H Faculty, OSU Extension (Room 2, Strand: STEAM)

Build awareness of utilizing the NGSS in your STEM/marine science programming. Participants will understand how to read and use the “K-12 Science Topics” in NGSS to target grade appropriate Disciplinary Core Ideas. Understand how NGSS’s “Three Dimensions” of 1) Scientific and Engineering Practices, 2) Crosscutting Concepts and 3) Disciplinary Core Ideas are intended to merge to support learner outcomes. Learners will have the opportunity to practice applying the standards to program planning appropriate to their local audiences. Yes this really will be a great program with take-home resources to make NGSS friendly. K-3, 4-6, 7-8, 9-12

Aliens Amongst Us - Easy ways to interest kids in science, biology and evolution through the amazing life of squid, octopus, cuttlefish and other Cephalopods.

Orlay Johnson, Fish Biologist for NOAA (Room 4, Strand: STEAM, Hands-On)

Ideas will be presented on ways to introduce young hominids to an alien phylum that arrived on the scene about 400 million years ago and dominated the seas for the next 200 million years. Why did they never venture onto the land? We will provide info appropriate for teaching a wide range of age groups about squid, octopus, cuttlefish, nautili and prehistoric forms of the phylum.

One way to introduce these aliens is by dissection of the common squid - a creature already cheaply available at Asian markets, dissection tools can be blunt, clean up is easy, and it truly is an alien species whose evolution is both vastly different and remarkably similar to humans. Plus, at the end, we can write a greeting to your loved ones in squid ink.

Wednesday, July 16, Continued

6:00 pmBanquet Dinner, Live Auction & Live Band, “*Done Deal*”

Our banquet theme this year plays off of Washed Ashore’s concept of trash turned to art. Design your own piece of marine and aquatic inspired art from found items and beach debris to show off your creativity. Bonus points if it’s wearable!

The ***NAME Awards*** are our chance to honor and recognize the work of NAME members who have put their hearts into aquatic and marine education.

The ***NAME Auction*** is always a conference highlight; the live auction raises funds for NAME’s mini-grant and scholarship programs. Auction items are varied and donated by members and local organizations, you never know what will be on the table!

Thursday, July 17

8:45–9:00 amBreakfast (Room 4)

9:00–10:00 amClosing Remarks & Slideshow (Room 3)

10:30 am – 1:30 pm* .Post-conference Field Trip

The Importance of Play, at New River ACEC

Have you struggled with bringing the concepts in your boring textbooks to life? Are you looking for inspiration for creativity, kinesthetic activities, and sensory experiential approaches to learning? Join us for a fun-filled day of outdoor play at New River Area of Critical Environmental Concern (ACEC), where we will rediscover our sense of wonder and adventure in environmental education. The field trip will include several games and activities that you can incorporate into your lessons, an exploratory hike, and a workshop session. While you’re here, feel free to enjoy the beautiful dune ecology of the southern Oregon coast, absorb a plethora of natural sights--including hummingbirds, endangered plants, and wildflowers, and... most importantly... **HAVE FUN!**

*Please plan on bringing your own lunch or eating afterwards.



Photo Credit: John Fowler

Notes & Contacts



NAME

NORTHWEST AQUATIC & MARINE EDUCATORS

See you next year in Washington!



Photo Credit: David Ayers