NAML Annual Meeting Notes
September 30 – October 2, 2019
Hatfield Marine Science Center
Newport, OR

Prepared by Billie Swalla

Day 1 – September 30, 2019

Day 2 – October 1, 2019

9:15 AM Kristen Milligan – OSU Marine Studies Office
Coastal & Ocean 'Learning Laboratories' – Exploring OSU Marine Studies Initiative's Work to Expand Academic Programs at the Coast

Marine Studies Undergraduate Degree Program – College of Liberal Arts
Required courses in the first few years
Marine Biology courses for nonmajors
New Courses
Maritime Histories of the Pacific
Race, Gender and Labor on the Oregon Coast
Race, Gender and Marine Sciences
Indigenous Ocean and Coast

Marine Biology – College of Science – students spend at least one quarter at Hatfield

9:45 AM Cinamon Moffett, Mark Farley, & Jim Lewis
Engineering, Construction, and Cultural Challenges to Building Within A Tsunami Zone

Marine Studies Building – most significant investment from OSU since 1968
Graduate students
250 seat auditorium!! Great for conferences!!
This land is from dredge
Community Resource Building – Tsunami Inundation Zone
Lattice of drilling cement and mixing it with the sand and mud
Ramp to the top floor is put up with "geofoam" or polystyrene blocks!
The elevators will still work even in the event of a 9.0 earthquake
Cache supplies and rooftop assembly: 920 people for 2 days
Quakenami!!
20 minutes from the earthquake to high ground!!
$850 - $900/square foot

10:15 – 11:30 AM Tours of the new building and also the sea water system

11:30AM Lunch Keynote: Rick Spinrad, President of Marine Technology Society!!

The Push and Pull of Marine Technology

Push
Oil and Gas – New Platforms
Portland Grain shipping – it takes 12 hours for a ship to go from Portland to the ocean. Portland is a major grain shipper!! Columbia river pilots

2012 Superstorm Sandy – Coastal management
Observation Systems - IOOS

1. Market
2. Investments
3. The push (Technological Opportunity)
4. Boyan Slat – 20 year old – capturing plastic in the Pacific gyre
5. David Lang and Eric Stackpole – ROV in open waters – OpenROV

…..Marine Laboratories operate at the intersection
"Coastal Intelligence!"

1:00 PM: Jack Barth, jack.barth@oregonstate.edu
Ocean Observing and Marine Ecosystem Challenges in the Pacific Northwest

Northern part of the California current – upwelling and reversals – part of maintaining the Pacific Northwest.
Upwelling is low in O2 and high in pCO2 – phytoplankton blooms
Ecosystem impacts of Hypoxia
West Coast shellfish aquaculture – Whiskey Creek Shellfish Hatchery

The Warm Blob – reformed this year – Barth et al. 2019

1. Persistence of warm water
2. HABs (Harmful Algal Blooms)
3. Seabird die offs
4. Marine mammal

NSF Ocean Observatories Initiative – OOI in the Pacific Northwest
Columbia River is the largest freshwater source on the West Coast
Second is the Fraser River

1. 25m - Inner Shelf
2. 80m – Middle Shelf
3. 500m – Slope

Lots of sensors on all of these!

NANOOS Visualization Center –
NANOOS Climatology App – vertical profiler in Washington

1:30 PM Shawn Rowe, shawnrowe@oregonstate.edu
Helping Publics make sense of Marine Sciences

Most research on how people learn is done in classrooms – is that where most people learn? No

The biggest source of our STEM knowledge is beyond high school
23% learned at work
34% learned in school
43% Free-choice learning – internet, museums,

The Cyberlab Observation Network – Surveillance Cameras, Microphones and Face Recognition of every visitor in the visitor's center.
40 camera system and some machine learning to identify interactions at exhibits! You can conduct this research as long as everyone is anonymous and not identified.
Mobile Cyberlab: making the platform international

The Exploratorium in San Francisco, the Smithsonian Institution and here at Hatfield Marine Science Center are the three places where we have this kind of research into how people learn.

2:00 PM Cascadia – Andre Barbosa
Cascadia Community Resilience

Community Resilience Motivation
2009 SPUR (San Francisco Bay Area Planning and Urban Research Association) Report
on the Resilient City
2012 Resilient Washington State
2013 Oregon Resilience Plan
2013 Rockefeller Foundation's 100 Resilient Cities
2015 NIST Community Resilience Center of Excellence
2018 Rockefeller Foundation's 100 Resilient Cities ends
2019 NIST Community Resilience Center of Excellence – renews for round 2

Interdependencies – schools, hospitals, water

2:30 PM Regina Wetzer (L.A. Museum of Natural History – new WAML members!)
WAML Genomics Observatory Network – Update of 2019 Summertime Activity

Puget Sound, WA
Three Taxonomists

OIMB BioBlitz in Charleston, OR
ARMS Retrievals
2300 Specimen lots, 900 taxa
1,172 sequences from 531 species
3 Hemichordata

L.A. Urban Ocean Expedition Los Angeles, CA
14 days
122 Sampling Sites
34 Dives
10 City and County Research Vessel Trips
60 Grab and Trawl Samples
14 Trawl Samples
400 Visitors on Explore the Expedition Day
73 NHMLA Staff Ambassadors and Gallery Interpreters
864 Hours of Volunteer and Student Support
27 Taxonomists – 4,027 Hours
4300 Specimen Lots
71 Likely Undescribed Species

Regina showed a video about building a Lab at AltaSea – Pretty amazing!!

Billie Swalla (WAML President) shared:
WAML & the Smithsonian Institution support the West Coast BioCode Project:
1) WAML will fund a total of up to 15K for BioCodes over the next two years (presuming they are sponsored by a WAML lab).
2) WAML will fund a total of 5K for any one BioCode.
3) Within a BioBlitz, we are willing to pay up to 3K for WAML member lab members to attend and up to 2K for non-WAML experts to attend (e.g. travel, not salary).
4) Travel expenses for any one individual should not exceed $700.

NAML Business Meeting – 3:45-6:00 pm
SEE Separate Business meeting minutes

Day 3– October 2, 2019
9:00 AM NAML members discussion

10:00 AM WAML Meetings

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Treasurers Report from Robert Richmond in Hawaii – $36,987.59
Expenses were audited by Billie Swalla and found to be accurate accounts.
WAML receives $4,000/year in dues from NAML members – that is about what we are spending on each BioCoding project ($5,000). The BioCoding project was an agreement with the Smithsonian Institution for three years of sequencing WAML specimens, we are in year 2 of this agreement.

WAML BioCoding Network - next year?
2019 Expedition – Biodiversity Assessment
2020? Guam, Jim Monterrey eDNA
2010? San Francisco State University to organize in the San Francisco Bay area?
Can Canadian labs join NAML/WAML?
For example, Hakai Insitute?

Neil brought up a discussion from WAML Genomics Observatory February 2017
Training
Collections
Publications – spheromatid data – WAML BioCoding Network

Pole to Pole – MBON project (small grant from NASA) – Neil Davies – Transect of the Americas – most of the work is intertidal right now. (Brian Helminth is the U.S. Representative).
Foresight - Hawaii to Tahiti

President Elect of WAML
Terry Donaldson!

Regina is not on the NAML email list – she should be added! Done 10-17-19
Jody Martin

Send reminders to Bob, Karina, etc to remind people to check out lab size!!

Donate button on WAML and NAML WEB site
WAML is in a good space – Can we modernize the WEB site?

Can we keep this up as part of the WEB site?
$4,000 from NAML

The WAML President can spend up to $2500 a year for a student 10hours/week for tasks.
Action items:

1. Follow up discussion and outline manuscripts at the next NAML meeting in Washington D.C.

Respectfully submitted – Billie J. Swalla