

Sanctuary Education Panel (SEP) Meeting Minutes Thursday, Jan 24, 2013

Location: Moss Landing Marine Labs, Room 202
8272 Moss Landing Road, CA
Time: 3:00 – 5:00 PM

Attendees: Simona Bartl, George Matsumoto, Lisa Uttal, Amity Wood, Chelsea Prindle Dorris Welch (notetaker)

Via conference call: Carolyn Skinder, Annie Kohut Frankel (Coastal Commission), Pat Clarke Gray (State Parks)

Ocean Acidification Education resources Discussion:

- 1) (by Deborah McArthur): *Egg Shells and Vinegar activity COSEE WEST*
 - a) George has used this. It is a good activity and very dramatic and fun. After a few days you can take the egg out and bounce it on the ground. Vinegar is so acidic it is dramatic. Good for younger students.
- 2) Lisa Uttal: Websites, activities and documents (see Google Doc). Goal Dec 2013 to have all resources in one place somehow and where. Goal that this list will have all useful vetted activities that can be used in a variety of locations, from formal to informal settings, from classrooms to Camp SeaLab to whale watching boats.
- 3) Amity Wood: **ACTION:** to do an internal assessment of Camp SeaLab activities that support behavioral change for these grade levels.
 - a) A lot of activities they use are for field and do not require computers or high tech equipment. These are “take out the beach” activities.
 - b) Every student who goes through Camp SeaLab receives a log book with all the activities they do for the week. The “eco pledge” gives kids ideas of what they can do to combat climate changes in their home and school.
 - c) Link to *Channel Islands NMS website*: Cool activity food web and climate change tie-in. A good way to address this. Whale *Jenga Food Chain Game* - they have incorporated this activity into their field grab bag for instructors to take.15 min long. Great focus activity. Simple, but a way to address climate change through an activity.
- 4) Simona Bartl:
 - a) Posted four links. Looked into finding specific actions people of varying ages can take to reduce carbon inputs. Her goal was to come up with a more comprehensive list for a greater variety of audiences.
 - b) “*Cooltheearth*” link - action coupons. This website shows you a variety of actions you can do to save carbon from going into the atmosphere. Lots of ideas here on this site.
 - c) “*The Story of Change*” (“Story of Stuff.org”) - She likes this because it is along the same lines as the story of stuff. This one talks about how people might change their minds and become more sustainable. What activities will fit you depending on what type of person you are - a leader, a follower etc.

- d) *Northwest Earth Institute site*: you need to buy their curriculum. Not everything is online. You can ask to be the person who teaches the course. A list of: transportation, plastics, at home, in your community, food.
 - e) *Koshland Science Museum (AAAS)* - This one is broken down in terms of mitigating. It is really comprehensive and has really big stuff like retrofitting whole buildings smarter electric grid, etc.
 - f) All these things are buried in these websites - so not easy to find within the sites.
 - g) She is afraid we are thinking too small when it comes to the actions. These links provide resources to think big.
- 5) Lisa Uttal:
- a) Climate change resources developed by NOAA and Sanctuaries on the west coast. They had a very international conference looking at ocean acidification and all the aspects that go with it.
 - b) First link is the OA action plan.
 - c) Carolyn spoke on the outcome from the conference: It was established as a Priority A. Messaging, marketing, lesson plans and break out groups discussed this. The questions were kind of huge at the workshops. They needed more time. They also held a sharathon of tired and true activities. A lot of these were high school and college focused rather than for younger groups. Laura may have sent out information to all. This conversation is a good follow through for what they wanted to have happen from the workshop.
 - d) Lisa brought in hard copy of the NOAA document to share: *NMS of West Coast Ocean Acidification Action Plan*. It is not posted on NOAA website.
- 6) Another print document was discussed:
- a) *Climate Literacy: the Essential Principle of Climate Sciences*. US Global change Research Program. This is in Spanish and English and a bit outdated as it is 4-5 yrs. old.
- 7) Chelsea Prindle:
- a) www.cissanctuary.org/acid/ocean
 - b) The Channel Island NMS website has good activities.
 - c) *Marine Osteoporosis* - this is a good one similar to the eggshell activity with formal lesson plans.
- 8) OAP NOAA ocean acidification program site - This link takes you to the education activities: presentations, curricula, interactive multimedia, and background materials. She pasted the link to the activities below the main website. This is all high school level, but middle school appropriate.
- 9) The most interesting site: *Climateinterpreter.org*
- a) This was created out of a NOAA environmental literacy NOAA grant.
 - b) You have to join to get things. Anyone can post resources. This is only a few weeks old, but very active so far. Online workshops to invite participants in an online interface.
 - c) NAI partnering with three major aquariums (Monterey, Long Beach and New England)
 - d) Strategic Framing E-workshop looks good.

- 10) George sent several links around on the listserve, but did not post on the googledoc. He will do this later.
 - a) One is a teacher workshop site (Earth Website) on the MBARI page with activities tested and developed by teachers.
 - b) C-More Activity kits - MBARI has a whole kit on ocean acidification
 - c) Guided webquest - using real data in the classroom. Takes you to some of the sites where people are collecting pH data and discuss what might be happening to ecosystem. Instructor versions, student version,
 - d) Mbari.org/earth/mar_chem/ocean?acid/ca_lesson.html
- 11) Pat Clarke-Gray - State Parks =has a brochure and an interpretive panel for climate change but very generic and not specific to ocean acidification.
- 12) **ACTION ITEM:** Simona asks that we try out activities and then post them.
 - a) Lisa suggests we place into a spread sheet and organize by age levels.

Action Items from Sept Meeting

- 1) Survey - This has not been sent yet. It was started when Dawn was on the SEP. Now Lisa and Simona are going to get it ready to send out.
- 2) Dissemination is key. The Diving Rep on the SAC is working to become more connected with his community. He is working on Constant Contact and sends out a newsletter and a survey every six months or so. He surveys them for feedback prior to SAC meetings with specific items. We should figure out a better way to have more of a two-way communication with the teachers we serve.

DEC SAC Meeting Highlights (Simona)

- 1) Discussions included: Calendering, Process and Procedures, Ways to be more efficient with their time.
 - a) A white paper was drafted on forage species, basically saying that the recent actions of appropriate agencies and the actions to recognize the importance of forage species are aligned with the resource protection mission of the sanctuary. The paper was discussed, edited, discussed and finally approved by the appropriate majority.
- 2) Conservation working group asked for more direction on how they can be more useful to the sanctuary. Simona requested this also for the SEP.
- 3) **ACTION:** Lisa will locate the education chairs of each SAC nationwide and especially on the west coast. She will contact each of the education coordinators west coast and ask if they have an education SAC rep and a SEP. They are just now having visitor center discussions with sanctuary education coordinators nationwide.
 - a) Simona would like to find out if there are other SEPS and also what other SAC ed reps are doing at other sites.
 - b) Chelsea thinks the new NOAA ocean acidification site is potentially the best fit for the resources the SEP is gathering. The NOAA OA site takes you to a coral reef site to get to the OA education activities.

- i) Simona - we could be proactive to advocate on posting the most useful information on these sites.
- ii) Lisa - what are our SEP organizations doing now for OA education? Exploration Center is doing nothing now, but intends to.
- iii) Request for next meeting - to come back and discuss how we would integrate this at our institutions? Simona - can we put it on Channel Islands or Monterey website?
- iv) How do we make this available? How do we make it useful to a broad enough audience? Challenge on how to message at visitor programs and also for school programs?

Sanctuary Update (Lisa):

- 1) Dawn is now the Deputy Supt. Lisa is stepping in to facilitate SEP for now.
 - a) Just ramping up the second docent training to start in March. Just completed strategic plan of education programs at exploration center thru Bechtal grant.
 - b) Looking at what exists and what NOAA has done best - it is on the website. Go in deep to document to the meat to find that the exploration center is gravitating towards this being a jump off point for visitors to actually get out into the sanctuary and do citizen science type activities. Initial programming will be beach clean up with SOS (they collect data and annotate).
 - c) Also working with LIMPETS. Water quality efforts they are already doing - water sampling. How do we take this data and have some implications to inform policy? This is a lofty goal to give kids a purpose to feel it has some value. It is the process of data collection that is important rather than the scientific validity of the data.
 - i) They are also looking at trying to partner with established scientific programs.
 - ii) Discussion about whether LIMPETS is teaching students how to think because it is so structured. There is a difference of opinion within the SEP regarding the validity of the LIMPETS program in teaching students how to think like scientists and whether this type of data collection really makes a difference to students. Interesting discussion ensued.
 - d) How to get students that come for field trips to the Exploration Center out into the sanctuary and doing meaningful activities that involved citizen science? This is a challenge. Starting with beach cleanup. May also do plankton sampling off wharf, whale watching, water quality sampling etc.
 - e) Sanctuary Exploration Center new Education and Outreach Plan is posted on the front page of the MBNMS website.

Future SEP Meetings

- 1) Next three SEP meetings are on schedule:
 - a) March 21 MBA - notetaker: Dorris Welch
 - b) May 23 Exploration Center – notetaker: needed
 - c) Sept 19 MBARI - notetaker: George

ANNOUNCEMENTS

- 1) ANNIE, Coastal Commission
 - a) Jan 31 Annual Coastal Poetry Contest Coastal Commission
 - b) Whale Tail Grants are being decided upon now - top notch creative projects this year
 - c) Tsunami clean ups - data collection looking at Japanese debris with a NOAA data card
- 2) Pat Clarke Gray, CA State Parks
 - a) State Ranger Assoc is having their conference in Monterey. February 27 there will be a Project WET training that others can sign up for.
- 3) Camp SEALab
 - a) Doing strategic planning now and working on collaboration. Looking for Camp SEALab type nomadic program to work towards long term facilities plan for their program. Some opportunities.
 - b) Sanctuary Cruises update - Gray whale migration is at its peak for southbound. Lisa asked for a way to post sightings at the Exploration Center. Dorris will send tweet to Exploration Center to post. Also check www.sanctuarycruises.com/captains_log.php for regular updates on sightings.
- 4) Moss Landing Marine Lab (Simona)
 - a) April 21/22 MLML Open House
 - b) Ongoing science cafe - posted on website - monthly on a Wednesday nights. Dates are posted on MLML website.
- 5) MBARI (George)
 - a) Internships accepting applications - deadline mid-February
 - b) Earth Teacher workshop deadline for applications is in March and the location will be in Honolulu. C-More will be the co-host this year.

Meeting Adjourned 5:00 pm