



# COASTAL FUND MINUTES

Associated Students

Tuesday, 11/5/19, Nati Conference Room

CALL TO ORDER: , 6:04 minutes recorded by Carissa

## A. ATTENDANCE

Name	Note: absent (excused/not excused) arrived late (time) departed early (time)	Name	Note: absent (excused/not excused) arrived late (time) departed early (time)
Jeremy Francoeur Chair	present	Anushna Patel Outreach Coordinator	present
Kate Mcleod Co-Chair	present	Katherine Fukada Outreach Coordinator	present
Cyrus Kayhan Undergraduate Rep	present	Sarah Siedschlag Advisor	present
Karen Thornton Undergraduate Rep	present	Carissa Stewart Administrative Assist	present
Mike Martin Undergraduate Rep	present	Kevin Sway Senate Liaison	absent
Phoebe Racine Graduate Student Rep	present	Emma Swanson Senate Liaison	absent
Laura Ingulsrud Graduate Student Rep	present		

## B. COMMITTEE BUSINESS

### 1. Approval of Attendance and Proxies

MOTION/SECOND: Jeremy/Cyrus

Motion language: Motion to approve attendance and proxies.

ACTION: Consent

Additional approval required: YES (Senate)

### 2. Approval of Minutes

MOTION/SECOND: Jeremy/Crus

Motion language: Motion to approve minutes from last week

ACTION: Consent

*Additional approval required: YES (Senate)*

### **C. PUBLIC FORUM**

(Announcements, appreciations, concerns, requests to have items added to agenda)

Take candy!

### **D. REPORTS**

#### **1. Advisor Report: Siedschlag**

- i. Might be another advisor coming by-AS advisor that's new
- ii. Come to the Ribbon cutting 3:30-5:30 on Thursday, November 14th @ Camino Pescadero Stairway
  1. mention again so they do not forget
- iii. Opened up spring course for scientific dive
  1. will have to decide how many people we want to fund
  2. Did one last year

#### **2. Chair Report: Francoeur**

- i. No more application for new board positions

#### **3. Vice Chair Report: McLeod**

- i. No report

#### **4. Senate Report: Sway and Swanson**

- i. No report

#### **5. Administrative Report: Stewart**

- i. Xochtitl send an adjusted budget but we need it adjusted more

#### **6. Coastal Service Program Report: Stewart**

- i. No more complaints
- ii. complaint was resolved
- iii. almost all weekends are full

#### **7. Outreach and Education Report: Patel and Fukada**

- i. Started gala planning

#### **8. Sub-Committee Reports**

- i. NRS scholarships
  1. still waiting to hear back from administration
- ii. Long-term funding application
  1. just met with pre-screening
  2. identified main differences
  3. started going over major grant application
  4. everyone as a board go over each summary but don't have to call in adults

- a. intro for new board members by reading long term grants during week 2
    - b. Sarah-might have to do motion every year but assumed that it will get approved
  - 5. We would invite people to do long-term funding
  - 6. Start with long-term night and then we wouldn't have to see them for three years unless problems
- iii. Pre-screening process for applications
  - 1. started thinking about criteria
  - 2. Some long-term organizations would be great for pre-screening
  - 3. Other organizations that don't fit into long-term-ex. EDC
  - 4. Consider how many cycles that have been funded by us previously
  - 5. If we stopped funding them recently then we have to look at criteria to see if they need to go back into the pre-screening process
    - a. will meet again same time next week

## **E. AGENDA**

### **1. Approval of Agenda/Additions to Agenda**

*MOTION/SECOND: Jeremy/Cyrus*

*Motion Language: motion to approve agenda and additions to agenda*

*ACTION: Consent*

*Additional approval required: YES (Senate)*

## **F. OLD BUSINESS**

## **G. NEW BUSINESS**

Extension Request for FALL 18-05

*MOTION/SECOND: Jeremy/Phoebe*

*Motion language: Motion to approve Extension Request for FALL 18-05*

*ACTION: Consent*

*Additional approval required: YES (Senate)*

Extension Request for SPR 19-33

*MOTION/SECOND: Jeremy/ Mike*

*Motion language: Motion to table extension request for SPR 19-33*

*ACTION: Consent*

*Additional approval required: YES (Senate)*

## **H. DISCUSSION**

## **I. PROJECT REVIEW**

Project Title: FALL 19-10: Kids in Nature Peer to Peer Environmental Program  
Sponsoring Organization: CCBER  
Presenter Name: Andy Lanes

#### Summary:

We request funding to assist with expenses to support CCBER's award winning Kids in Nature Program. The funding will help to support the KIN Coordinator and Associate as well as a total of twenty student stipends. Up to ten undergraduate students will be selected to serve as Kids in Nature (KIN) interns during Winter quarter 2020 and up to ten for Spring quarter 2020. The KIN interns will serve as mentors for the newly enrolled UCSB students and also for the over 100 5th grade students who are part of the KIN program. The interns will each lead one of the KIN groups of 4-5 students in classroom activities and on field trips.

#### Presentation Notes

- Cyrus is recusing himself
- Andy Lanes works at Cheadle Center for Biological Diversity
- Education outreach for Kids in Nature program
- CCBER is small department under soccer stadium
- Lots of education outreach and restoration
- Through education outreach have Kids in Nature
- UCSB course that was with EEMB but now it's just environmental studies
- UCSB students are trained to be environmental educators to work with fifth graders
- Part of proposal is paying for UCSB internships
- Come back winter quarter with all new faces, so we ask for funding to provide continuity of mentorship
- Can be intern subsequent quarters after leaving the class
- Another part of it is bus transportation- we bus disadvantaged communities from downtown to come up here
- Brought Kids in Nature journal
- Each kid gets a journal on the first day
- Every summer they fix it up and adapt it
- They also get a backpack each
- Would like to extend invitation for the last field trip at Elwood beach- with a dual immersion Spanish school 9 AM to 12 PM
- Been doing a lot of Spanish in workshops as well for the immersion program
- At Botanic Garden to do botany, fire adaptation, nature seeking in creek

#### Board Questions

- Phoebe- kids get bussed in to classes?
  - 6 field trips throughout the year
  - If you take the class, UCSB students would go on two trips

- Going to beach kind of far away due to the snowy plover student
- Class has been reduced to 1 day a week for 4 years
- Had to recruit interns to make up for the lack of class time- had 6 interns this quarter to save the day
- Rotate between 3-6 activities
- Some activities include bird identification, beach treasure hunt, algae testing, planting, restoration
- Work with 5 fifth grade classes
- Is the tuesday class only covered by intern
  - Thursday class does the field trip
  - Tuesday class got shut down just found 6 interns to help with it
- Sarah-can you talk about curriculum and your program?
  - We follow CA initiative on science and line curriculum for next generations scientists fulfill science
  - Often a lot of teachers do not know that much about science and so they provide that gap
- Jeremy- mentioned in the application that you are trying to get more fifth graders?
  - That is a goal and environmental studies department will pay someone to get more students in the ucsb class
  - Mentor to student ratio is often 1:1
  - Planning to up the class to 40 students
- Are you planning to get more interns
  - Will probably ask for the same amount because you only need a certain amount for field trips
  - Provide all of the training
- Has there been any other changes with the class other than those mentioned
  - Hoping to transition to the education department next year
  - Always working with teachers to come up with new curriculum
  - Ucsb students have to come up with own beach activities
- Is this a long-term source of funding for you?
  - Yes, as long as we get the director and the fifth graders into it.
- How much do interns do?
  - Ucsb students on thursday are actually being graded
  - This thursday will be third field trip to assess the skills
  - Think its cool to see ucsb experience
  - There with the interns because they have just been trained

#### Board Discussion

- Really like them- kate
- Phoebe and Mike love it
- Each student gets one and they will remember it

- Skeptical about bus transportation but it makes sense for full year with 18 field trips
- 100 bucks a bunch which isn't a lot

*MOTION/SECOND: Jeremy/Mike*

*Motion language: Motion to table discussion on FALL 19-10*

*ACTION: Consent*

*Additional approval required: YES (Senate)*

Project Title: FALL 19-11: Wildfire and mudflow impacts on marine phytoplankton community composition in the Santa Barbara Channel  
 Sponsoring Organization: Marine Science Organization  
 Presenter Name: Sylvia M. Kim

Summary:

The devastating Thomas fire and post-fire mudflow event that occurred in December 2017 and January 2018 in Santa Barbara and Ventura counties resulted in the introduction of large amounts of ash and mud to the Santa Barbara Channel (SBC) via atmospheric deposition, runoff, and human clean-up efforts. Due to the increasing nature of events like these and the unique anthropogenic origin of the ash and mud material (e.g. burning structures/houses, sewage, oil and gas from homes and roads, etc.), our group has proposed to study the unexplored ecological impacts of these circumstances on our local coastal ecosystem. Previous projects have been funded to explore these effects, and our findings suggest that phytoplankton communities at the base of the marine food web are significantly impacted by the addition of ash and mud. Due to the large response observed in our experiments, we would like to further investigate how the communities change through the analysis of DNA.

Presentation Notes

- Brought a handout
- Major goals of research proposal is to study impact of fire
- Thomas fire and mud slide a lot of ashes and mud fell into ocean
- Oil gas and sewage all went into ocean
- No studies have been done to see what was spilled in ocean
- In 2018 they got the opportunity to do some led-based experiment
- Tested for organic and inorganic and phytoplankton changes
- Mud and ash were presented in ocean
- Found inorganic and organic nutrients
- Mud added ammonium and ash added nitrates
- Did microscopic counting but there are limitations
- Too small and too many

- Was shift in phytoplankton community
- Want to get funds to complete 18s sequencing analysis
- Analyzing data will get relative date
- Will combine 18s sequencing data and microscope counting data and will use both to get a big picture of phytoplankton
- Will share new findings with publishing and conferences and outreach

#### Board Questions

- Phoebe- how does this relate to meta-barcoding?
  - The 18s sequencing is dna not rna
- How many species have you found so far-jeremy
  - It varies. In spring there was a lot, can identify 20 species by her eyes
  - In winter it was 10-15
  - Do rough grouping
- Cyrus-will there be undergraduate involvement
  - There is one undergraduate helper
- Kate-can you talk about how your unexpected results have led to this new project
  - Can't really say what its going to be like
  - Both ash and mud they expected it to create a problem with phytoplankton
  - Not so sure
- Jeremy- looking for relative abundances, how do you do it with pcr? Also what about the fluorescents and what determines that?
  - Your targeting eukaryotes and pick those changes and then using those sequence data and reference data base and will get relative data from that
  - Roughly we can get the answer by doing the 18s sequencing analysis
  - There is not accurate answer without looking at rna analysis
- Where did you do sampling?-Phoebe
  - We did lab-based incubation experiment from goleta pier
  - For ash we got it a little bit past goleta pier
- How would you determine which species match
  - Thinks she put citation paper on application
  - Lots of data base on internet
  - Published paper to have map of phytoplankton community

#### Board Discussion

- Interesting
- So complex and doing dna sequencing would be meaningful
- Kate likes the project
- Don't really understand the project but it seems like she does
- Probably good to do the research now
- Might be able to contribute to scripps and what happens in the future

- We don't have any economic data for how algal blooms exist across the world
- Sounds like first project was preliminary
- Doubt that there are only 20-30 phytoplankton species
- Would be interesting to see which species are dominant
- Relatively speaking its not like a huge chunk of funding
- Wandering if this will continue beyond this year and if it will be ongoing
- Would be good to know what its the mud

*MOTION/SECOND: Jeremy/Cyrus*

*Motion language: Motion to table discussion on FALL 19-11*

*ACTION: Consent*

*Additional approval required: YES (Senate)*

Project Title: FALL 19-12: Assessing giant kelp's microbial community structure under different environmental conditions and host quality

Sponsoring Organization: EEMB

Presenter Name: Sevan Esaian

Summary:

Giant kelp is a macroalgae capable of forming underwater forests that host thousands of Santa Barbara's coastal marine species. As an ecosystem engineer, it provides shelter and nutrients for organisms ranging from microbes to fish. While kelp forest ecology has been extensively studied, less is understood about its biogeochemical dynamics – especially dissolved organic matter (DOM) which is vital to coastal food webs. Blades exuding DOM host diverse assemblages of microorganisms; yet, their role in cycling DOM remains unknown. To address this and set a foundational understanding of microbial-kelp interactions, we collect microbial samples for genetic sequencing analysis.

We ask:

(1) Does host blade quality impact microbial composition?

(2) Does depth impact giant kelp microbial community formation?

Determining host quality and environmental effects on kelp-microbial dynamics will uncover microbial DOM cycling services.

Presentation Notes

- EEMB phd student
- Research is significant because giant kelp is a largely distributed plant that is foundational for santa barbara
- Capable of doing so because of photosynthetic capability
- Important to santa barbara channel

- Form dense canopies where light becomes issue
- Compelling hypothesis that talks about how competition for light really limits blades at bottom and limits organic matter kelp can produce
- Productivity of blades lets blades serve as hosts for microbes that form on their
- Know next to nothing on the microbes that live on there
- Relationship between the blade and microbes or the biogeochemical importance of these microbes
- Follow hypothesis to see if the lack of light on the blades will see how good microbes are at putting out organic matter
- Chose Arroyo Quemado because there is a lot of information from other research
- Tagged growing tips of blade there in order to determine if there are specific patterns between depth and microbes
- Idea that biogeochemical cycling will be affected by lack of light on kelp blades
- If microbes are good nutrient sources at top what patterns do we find and based on these patterns, how can we aim for future research to uncover relationships between kelp forest and this microbial data
- Undergraduate research assistant has helped with field work, sampling bacteria
- She will learn more skills in the future
- This project is just a stepping stone
- Will have a tremendous need for undergraduate helpers moving forward
- Microbial sampling was done last summer
- However do not have funds for next generation sequencing
- Without support from us they cannot send out samples for sequencing
- Extracted giant kelp samples but still want to send out samples for carbon to nitrogen levels

#### Board Questions

- Jeremy- why did you only sample three regions of plant
  - Fronds grow really rapidly and if you swab blade, they have reset community to zero
  - Only certain number he can sample before he runs out
  - Three samplings worked the best
- Phoebe-in less scientific terms, how can study impact local ecosystems
  - Its important to find out patterns to figure out dominant community members
  - Tell you something about micro-ecosystem
  - Might be something really important with nutrient cycling
  - Probably happening on all kelp blades
- Any future dreams studies-phoebe
  - Personally interested in system biology approach
  - Take isolates from lab of dominant community members and take sequence to see metabolic rate, microscopy
  - Want to get more detail on kelp
  - Wants to develop math problems to see how climate change affects this

- Mike-with rapid growth rate, do you see lower blades being affected by short-term visibility of water
  - Waves and turbidity will affect it but we are testing every two weeks
  - There is a possibility that it will affect that data but they aren't out there every day
  - Don't have sequence data to answer but he doubts it will affect it that much
- Jeremy- how do you know that the reasons of microbes has to do with light and temperature
  - Light and temperature are not the only thing that affect productivity
  - Other abiotic factors
  - Structural characteristics vary but nobody has studied how that affects microbial community
  - Nobody has tested how lack of sun affects as well
- What's the significance of getting that data now?
  - Microbes are so fundamental for foodweb or biogeochemical process
  - Shocking that there is no data of bacteria that help releases that affects so many species
  - Part of the reason why it hasn't happened in the past because of technology
  - Thousands of species depend on it
- Do you think this hasn't been done because of technology-Jeremy
  - Next generation sequencing is cheaper now then it was
- Jeremy-what are you taggings with and what happens if they fall off?
  - We always tag way more that they are going to sample and tag them with bright tags and then take it off after they are done
- Cyrus- Wondering about undergraduate experience
  - Undergrad student came with heavy interest in molecule
  - Did lots of field work
  - She will learn molecular techniques in the future
  - Will work with sequencing technology
  - Will analyze data in coherent and clear way and he will work closely with her
- Jeremy-Do you foresee seasonal changes
  - Had a side effort to sample blades that were same age
  - Those samples did not turn out how they wanted
  - Shown subtle differences between may and september
  - Nobody has addressed differences between the seasons
  - Room for error because nothing is perfect

#### Board Discussion

- Sounded good, questions were answered thoroughly, project is well developed
- Lots of well developed research projects this quarter, will need to make cuts to some at some point but not necessarily this one

*MOTION/SECOND: Jeremy/Karen*

*Motion language: Motion to table discussion for FALL 19-12*

*ACTION: Consent*

*Additional approval required: YES (Senate)*

Project Title: FALL 19-07: A new horizon--oil platform decommissioning

Sponsoring Organization: Environmental Defense Center (EDC)

Presenter Name: Linda Krop

#### Summary:

This project will be focused on the decommissioning of Platform Holly as well as seven other oil and gas platforms in the Santa Barbara Channel. Located directly off the coast of UCSB, decommissioning activities of Platform Holly will affect the Campus Point State Marine Conservation Area and the surrounding marine environment. The 30 wells on Platform Holly are expected to be plugged and abandoned in the next 18-36 months. During this time, the State Lands Commission will begin environmental review for the decommissioning of the platform. The goal of this project is to ensure the marine environment is protected during and after decommissioning activities. The Environmental Defense Center (EDC) will achieve this goal through review of associated environmental documents, research, and policies related to these activities.

#### Presentation Notes

- Laura is recusing herself
- Have done this before and have gotten coastal fund grants in the past that relate to oil
- EDC is a non-profit law firm that started after 1969 oil spill
- Platform Holly has been decommissioned and finally plugged and abandoned
- Really going along to timeline that California set forth
- Great internship opportunity
- Intern research is going to directly affect future options after the platform gets shut down
- This has been going on for a very long time
- Aren't really sure exactly what information they are going to need
- A lot of events coming up that is going to educate about decommissioning
- Need to take a big rig on the platform to take it away
- Have 8 platforms that are committed to decommission
- The rig is very expensive and need it for a year for each platform
- We have a lot of research that needs to get done for cost of decommissioning

- Great to have an intern look at cost of rigs
- Lot of work that can be done
- Lot of research about ecology of platforms
- Would be research on policy side and communication side
- Goal to get community to understand about decommissioning
- We don't want to just look at ecology, but pollutants, precedents etc.
- Wants to get intern who is really interested in science communication
- They like to fit interns skills to their research

## Board Questions

- Phoebe- what kind of impacts to comments have
  - Responsible agencies are required to look at comments
  - EDC will look at comments and consider them
  - Need this to read comments, understand comments, and communicate
  - Goal is to educate community on decommissioning
  - Don't have EIR so there isn't scientific info
- Who is the community
  - Students, people living in santa barbara, any stakeholder group
  - This internship will be complete before an EIR comes out
  - Want to have fact sheets on website etc
- Karen- What does EDC staff do?
  - Providing information to get into the actual communication
  - Collaborative project to create blog posts, webinar, fact sheets, etc
- Cyrus-How do you plant to recruit interns? Is the cost of decommissioning Platform Polly put on tax payers?
  - Would reach out to Bren and Environmental Studies
  - Take a long time to go over applications
  - The company that had it before is taking care of the cost
  - But other decommissioning projects that will be put on taxpayers (60 million out of the 300 million)
- Kate-how will you get the campus to know about it
  - They would defer to the intern about campus outreach
- Jeremy-Is there an issue on the budget with a ten weeks vs the 20 week for interns that you are describing
  - Thats a mistake

## Board Discussion

- Vagueness is flexibility for interns
- This will be a very mentored position but also a lot of freedom

- Something important to the community

*MOTION/SECOND: Jeremy/Phoebe*

*Motion language: Motion to table discussion of FALL 19-07*

*ACTION: Consent*

*Additional approval required: YES (Senate)*

**ADJOURNMENT AT 9:03**

*MOTION/SECOND: Jeremy/Cyrus*

*Motion language: Motion to adjourn at 9:03*

*ACTION: Consent*

*Additional approval required: NO*