Associated Students
Tuesday, 10/27/20, Zoom

CALL TO ORDER: 6:02 minutes recorded by Carissa

A. ATTENDANCE

<table>
<thead>
<tr>
<th>Name</th>
<th>Note: absent (excused/not excused) arrived late (time)</th>
<th>Name</th>
<th>Note: absent (excused/not excused) arrived late (time)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jeremy Francoeur Chair</td>
<td>present</td>
<td>Joelle CantoAdams Outreach Coordinator</td>
<td>present</td>
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<tr>
<td>Ethan Estrada Co-Chair</td>
<td>present</td>
<td>Duncan Edwards Outreach Coordinator</td>
<td>present</td>
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<tr>
<td>Jackie Rigley Undergraduate Rep</td>
<td>present</td>
<td>Sarah Siedschlag Advisor</td>
<td>present</td>
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<tr>
<td>Rylee Pupa Undergraduate Rep</td>
<td>present</td>
<td>Carissa Stewart Administrative Assist</td>
<td>present</td>
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<tr>
<td>Mykala Listorti Undergraduate Rep</td>
<td>present</td>
<td>Gurleen Pabra Senate Liaison</td>
<td>present</td>
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<tr>
<td>Phoebe Racine Graduate Student Rep</td>
<td>present</td>
<td>Fabian Oseguera Senate Liaison</td>
<td>absent</td>
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<tr>
<td>Michaela Sten Graduate Student Rep</td>
<td>present</td>
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B. COMMITTEE BUSINESS

1. Approval of Attendance and Proxies
   MOTION/SECOND: Jeremy/Ethan
   Motion language: Motion to approve attendance and proxies.
   ACTION: Consent
   Additional approval required: YES (Senate)

2. Approval of Minutes
   MOTION/SECOND: Jeremy/Kaley
   Motion language: Motion to approve minutes from Summer votes
   ACTION: Consent
C. PUBLIC FORUM
(Announcements, appreciations, concerns, requests to have items added to agenda)
  ● Santa Rosa island is renting out island
  ● DDT containers were dumped off the coast of Catalina

D. REPORTS
1. Advisor Report: Siedschlag
   i. will be doing a little presentation on philanthropy
   ii. free covid tests right now in IV

2. Chair Report: Francoeur
   i. no report

3. Vice Chair Report: Estrada
   i. will assign superlative partners

4. Senate Report: Pabla
   i. allegations against ucsb senate president so lots of problems with that
   ii. caused a lot of unrest so the President resigned
   iii. Internal VP is taking over for now
   iv. SAG is getting elected soon

5. Administrative Report: Stewart
   i. week 8 is empty so we can skip it, split it, or do it early
   ii. extension requests will now include requested project end date

6. Coastal Service Program Report: Stewart
   i. no report

   i. newsletter will be going out on the 1st
   ii. will start doing memes

8. Sub-Committee Reports
   NRS scholarships
   ● no report
   Long-term funding application
   ● no report
   External Communications
   ● met, looked at it, and outlined scope of project

E. AGENDA
1. Approval of Agenda/Additions to Agenda
   
   MOTION/SECOND: motion to approve agenda and additions to agenda
   Motion language: Jeremy/ Kaley
   ACTION: Consent
   Additional approval required: YES (Senate)

F. OLD BUSINESS

Extension Request – Fall 18-15: Quantification of Pharmaceuticals and Personal Care Products in a Santa Barbara Wastewater Treatment Plant
   ● Phoebe recused
     MOTION/SECOND: Jeremy/Ethan
     Motion language: Motion to approve extension request for FALL 18-15
     ACTION: Consent
     Additional approval required: YES (Senate)

Extension Request – Win 19-13: Fate and Occurrence of Pharmaceuticals and Personal Care Products in Wastewater Treatment Plants
   ● Phoebe Recused
     MOTION/SECOND: Jeremy/Kaley
     Motion language: Motion to approve extension request for WIN 19-13
     ACTION: Consent
     Additional approval required: YES (Senate)

Extension Request – Win 20-08: Fate and Occurrence of Pharmaceuticals and Personal Care Products in Wastewater Treatment Plants
   ● Phoebe recused
     MOTION/SECOND: Jeremy/Ethan
     Motion language: Motion to approve extension request for WIN 20-08
     ACTION: Consent
     Additional approval required: YES (Senate)

G. NEW BUSINESS

H. DISCUSSION

I. PROJECT REVIEW

Project Title: FALL 20-06: Endangered in California/Back From The Brink
Sponsoring Organization: International Documentary Association
Summary:

Endangered in California/Back From the Brink is a documentary film project about endangered species in California - most in Santa Barbara watershed - that have been brought back from the brink of extinction by dedicated biologists and collaborators. The project has been in production for three years which 85% of filming completed. We are now seeking funding for the completion of the film: editing, final filming, post-production and distribution.

Presentation Notes:

- Has gotten to film species in their natural habitats
- Interviewed biologists and field scientist
- In the process of editing now
- Interns working field, transcribing interview
- Been a struggle this year bc of covid
- Asked for an extension so that he could continue through the winter
- Can be used for web presentation, film projects, teaching
- Listen to needs of the agency and see what will best serve for making tool of action

Board Questions:

- What's the other 15% of filming
  - missing certain shots that you might want to add later
  - Audio was bad, interview wasn't great
  - Few shots that they want but haven't got
- How is covid going to affect the next stage of the project
  - Worried about intern
  - Really like working with interns- film department isn’t sending any interns
  - A lot of intern jobs can be done remotely
  - Editorial can be done at home, work with editor, have an editing suite
- Post production audio facilities, non student position in budget
  - Non intern stipend- needed to keep him afloat
  - Cinematographer is needed and would like a stipend
  - Colorist and primary editor is highly technically skilled and needs stipend
  - Post production audio and video facilities is for professional audio post work
  - Really low figure for those services, is not a cheap thing and improved quality
- What would the interns do
  - Production assistant learns a little bit of everything
  - Holding a microphone, helping with lighting, transcriptions of interviews, doing research, finding publications, etc.
  - Second editor will be cutting b role, other parts of film, will be working with main editor
  - Post production sound assistant will be working for mastering and working with main sounds technician
- Can you give examples of films you made and what its used for
Films have been used for training snowy plover interns, for visitors, for preschools, visitor center, montana international wildlife center, pbs campaign, newstory, etc

○ Used at public schools, crane schools, used to educate students
○ Most important reason is instilling outreach, education, inspiring, and entertaining

● How long is the product
  ○ 60 minute
  ○ Longer version at film festivals
  ○ And then several ten minutes ones
  ○ Will be downloadable

● How was experience so far working with interns
  ○ Its been great
  ○ Frustrating with covid and lack of interns
  ○ Had interns back home that were doing transcriptions
  ○ Love getting emails from intern who love transcribing interviews
  ○ Able to impart what he knows
  ○ Extremely gratifying

Board Discussion:

● Love this project
● Excited to see this documentary
● Want to see this little last leg
● Got a couple documentaries worth watching
● Really mission driven
● Wish he could work with greater funders
● Films he creates has a lot of value
● The different used was really impressive
● Good discipline crossover project

MOTION/SECOND: Jeremy/ Kiya
Motion language: Motion to table discussion on FALL 20-06
ACTION: Consent
Additional approval required: YES (Senate)

Project Title: FALL 20-07: Internships and additional funding support for conservation, education, and restoration programs for winter and spring 2021
Sponsoring Organization: Coal Oil Point Reserve
Presenter Name: Jessica Nielsen

Summary:
Coal Oil Point Reserve (COPR) requests funds to provide UCSB students with paid internships for winter and spring quarters of 2021. UCSB student interns and assistants will participate in the Snowy Plover Docent Program, land stewardship (restoration,
maintenance, and resource management), water quality monitoring, and plant photography. The internships at the reserve will provide UCSB students with opportunities to acquire field experience to enhance their professional development while helping the reserve with crucial conservation and education programs.

Presentation Notes:
- Joelle CantoAdams recused herself
- Conservation specialist
- Asking for money for internships, habitat restoration, water quality testing, land management, and snowy plover docents
- Hoping to pay them
- New internships for plant photography
- Having intern take photos of plant when starting to seed and in full bloom
- Compound microscope that can take photos
- Snowy plover docent program combination of volunteers and interns that educate public on snow plover
- Breeding spring through summer
- Right now in wintering in fall and winter
- Land management is planting species and eradicating invasive species
- Requesting assistant for steward- will trailer water, drive truck, will spend more time planting seeds
- Water quality intern will be monitoring devereux slough and sample turbidity, salinity, temperature etc
- Asking for supply money for various programs, getting mulch, soil, tools
- Funding for docent program
- Every individual needs own vest, clipboard, etc
- Incubators failed last year so they need a new one to help incubate snow plover eggs
- Raise them until old enough to fly
- Partner with santa barbara zoo and sometimes raise them
- Also asking for funding for snacks

Board Questions:
- How did incubators fail
  ○ They are twenty years old they are just getting old and mechanics are rusting
  ○ Don’t feel confident using them next year
- Can you tell us about hatching and raising of chicks
  ○ Some of eggs are infertile, occasionally get some that are still fertile
  ○ Out of 30 eggs collected, 12 were release into the wild
  ○ There is evidence that they are not too imprinted on humans
- Where do you bring them up
  ○ Have aviary nursery area by nursing house
  ○ Need round the clock care
  ○ Right at the reserve directors backyard
  ○ Couple of aviaries set up for when they can fly
  ○ Eat meal worms and beach hoppers
○ Will find beach hoppers on the beach
○ Supplement form mealworms, supplement with different vitamins

● Hoping to get some funding bundled and brought in, what flexibility do you need during covid and how can we help
○ All of the internships were given in lump sum, helpful that we lumped all of the internships together on the line items
○ Hoping to have exactly what they asked for but ucsb might have more restrictions in place for next quarter

● How are you planning non field guide for plants photographer
○ For presentations
○ photos can look different depending on area
○ Helpful for field guide for interns
○ Helpful for seed collection

● Keep seeing plovers at devereaux how big is their area
○ During wintering season there is a vast territory that they can be found
○ Some migrate down from Baja mexico, washington, etc

● Were Not able to get land interns, how has that affected some of the invasive species
○ KIpp has been doing that a lot on their own, been taking down some ice plant
○ More they want to get to once they can take more interns
○ Work is outside and create safety plan

● Heard that you have snacks in your budget, is it hard to get snacks
○ Always have the options to check out groups that are willing to donate
○ But it is hard to find snacks

● What are the most essential line items
○ All of the internships are important but you can reduce the number
○ Snowy plover docent number can be reduced if needed

● What is the minimum number of internships that you need
○ For docent program a minimum of 8 per quarter
○ Land steward interns at least 2 or 3 a quarter
○ Land steward assistant is really important
○ Water quality and plant photography is 1 per quarter internship

Board Discussion:
● Ongoing funding
● Talked about them being a potential long term funding applications
● Their success rate is really impressive
● Photography intern is different but sounds like it would be super useful
● Standard and kinda comes down to where we are at for quarter but like internships

MOTION/SECOND: Jeremy/ Kaley
Motion language: Motion to table discussion on FALL 20-07
ACTION: Consent
Additional approval required: YES (Senate)
Project Title: FALL 20-08: Recording and Comparative Analysis of Western Meadowlark Songs of the Channel Islands and Santa Babara County Mainland
Sponsoring Organization: Channel Islands Restoration
Presenter Name: Elihu Gevirtz

Summary:
The study will record the songs of Western Meadowlark populations on the Channel Islands and compare them with the songs of Western Meadowlark populations on the mainland of Santa Barbara County. One researcher, assisted by two UCSB student interns, would record meadowlark songs from several locations on most of the Channel Islands, and from several locations on several mainland sites including the Hollister Ranch and the Sierra Madre Potreros. The recordings would be evaluated and compared. The hypothesis of the study is that Western Meadowlark populations on each island have distinct song repertoires that are distinct from those of their mainland counterparts and from repertoires of populations on other islands. If this is true, this may suggest that island populations are isolated from each other, that they do not migrate from island to island or from island to mainland, and there may be one or more subspecies that have not yet been recognized.

Presentation Notes:

- Doing some work on St. Nicholas island, noticed some meadowlarks were different than mainland meadowlarks
- Are there documental differences on the channel islands than on the mainland
- Software exists so they can document
- What does it tell us if the meadowlark song is different
- Don’t know if there is interaction between island birds and mainland or island to island
- If they are significantly different song repertoires and they don’t move, is there significant differences in their genomes
- Did a literature search and found out that there is a species of meadowlark in colorado and people there notice difference in songs and deciding that they are genetically distinct
- It’s a different species now
- Talked to expert colleagues and there is a number of questions that we don’t know
- Really exciting and can create contributions for other things
- We know about isolation and pieces of scrub jay that’s on santa cruz that’s bigger than on the mainland
- Don’t know what they are going to find out
- Has a scientist that he knows that studied bird songs and he wants him as an advisor
- Project would have recording of both mainland and island meadowlarks
- Two internships and would be paid at an hourly rate
- Total cost is 26,000 and will get match of 50%
- $1500 for interns, $1200 for recording equipment, boat and helicopter costs, half staff costs
Board Questions:

- What made you decide to do a helicopter versus boats separately
  - At first they were going to do boats but then Covid hit
  - Exploring other options and helicopter provides unique opportunity, can hit all of the islands all at once
  - May be problems with helicopter strategy
  - Might go back to the boat options, will be substantially less
  - Request is $5500, if eliminated but had boat cost, it would probably cost $1,000 for different boat trips, would drop request by $4,000
  - Logistics are still challenging
  - Still have to arrange a vehicle around, might be affected with covid

- Can you tell us about meadowlarks
  - Live and depend on grasslands
  - Thick densely covered grasslands
  - Need a place to perch
  - Occasional shrub or fencepost they perch and sing from
  - In winter they are in large flocks
  - In breeding season they get down to low numbers
  - Eat ground dwelling things
  - Whole lives are dependent on grasslands
  - Farms are done on grasslands, huge reduction of habitat
  - Population has been reduced by about 50%
  - 10s of thousands of birds are not here anymore
  - Elwood mesa, san marcos hills, omea and a few different patches and that's it
  - No breeding happening anymore in santa barbara areas
  - Have not been happening for 30, 40 years
  - Did a study in spring and summer of a hollister ranch and had a few singing during breeding season on a ranch but probably just a couple of birds
  - Did a study on trails of santa madre isolated grasslands
  - Learn songs from each other
  - In western meadowlark there are only 10 songs on eastern meadowlark there is a 100

- What makes a good habitat versus not
  - How much land, how much risk, how much food, how much disturbance
  - Do okay for grazing but not good for mowing

- What are some of the questions that you are still working out in terms of logistics
  - Just the helicopter vs boat ordeal
  - Would just need to work out some more things like reservations for camping and for boating vehicle
  - Most researchers will stay at university research station
  - Given permission to stay at kristy ranch or research station
  - Hardest things will be securing vehicle
  - All of analysis will happen at home
  - On anacapa that will just be walking

- Do you think there will be an issue with getting close enough to the birds
  - Don't think there will be an issue
  - Will have to keep some distance so they don't scare them
- Can be 100 to 200 feet away and still hear them
- Are you going to be analyzing songs themselves or are you going to be taking pitches and cadence and is there going to be software involved
  - Songs themselves, pitches, there's the breaks between primary notes and pattern, all those things will be addressed and each one individually described
  - Come up with graph that has visual sound recording, will put those graphs in the paper
  - Mccauley library has recording from all over the country and you can compare the songs

Board Discussion:
- Didn’t really fit into our mission statement
- Weak connection
- Really thought it was a great project
- If they discover that it is a subspecies that would have implications when it comes to conversation for sure
- Can shut everything down from a building perspective
- Could see an argument for conservation
- Thought project was super cool because channel islands have so many unique species
- Lot to learn, channel islands is a national park and can contribute to knowledge to islands
- Started mentioning that there were very little breeding grounds
- What efforts are there for protecting these birds
- What is interesting is that there were a lot of questions about the meadowlark that don’t seemed to be known
- Increasing knowledge is usually very important in conservation efforts in the future
- Understanding if populations are connected
- Seems like study that could come before you make conservation efforts around these birds
- If they were just two isolated bird populations that would be weaker but an island biology that fits our mission statement
- If one was threatened the other just can’t make up for it
- The fact that there could just be another one that would be cool
- People come to us for needs to be proof of concept
- We are the starting point and can provide funding for places that the bigger funders don’t
- He’s come to us before that were really big multi-year projects, we have rejected that but everytime we give him feedback he reshapes that so that he can get funding from us
- Very prepared, really impressed, feel like it does fit
- Good that he has collaborators

MOTION/SECOND: Jeremy/ Kaley
Motion language: Motion to table discussion on FALL 20-08
ACTION: Consent
Additional approval required: YES (Senate)

Project Title: FALL 20-11: Developing a Fire Safe Native Plant List for Santa Barbara
Sponsoring Organization: EEMB
Presenter Name: Robert Fitch
Summary:
I am requesting these funds to pay a stipend for an undergraduate researcher for winter, spring, summer, and fall quarters of 2021. $17 x 20hrs x 40wks = $13,600. This amount is intended to lessen the burden of living expenses for students so they can be paid to gain valuable research and analytical skills.

Presentation Notes:
- Ethan recuses himself
- Project came about looking at restoring plants on the fuel brakes
- A lot of counties and neighborhood watch programs look at fire resistant plants
- Have lists that are published that are useful for choosing fire resistant plants
- Certain native plants in the field were planted
- Certain species died months earlier than other plants
- Grasses with water in the leaves is less ignitable and food for animals
- A lot of thought process goes into developing fire resistant plants
- How do we make fuel brakes and how to we manage fires that are ecocentric
- Director of chaparral institute and community watch program in Kate fire area all talked with him
- Wanted to see what they can do about native plant species
- A lot of times its misrepresented as major seeds companies will give them seeds that are non native and bad for erosion as good for erosion
- The companies are lying
- Having people understand what not to use
- Goal of project is to hire year long researcher to have this for their project
- Combines lots of different elements of scientific process
- Thinking beyond fire management perspective, native grasslands that are fire resistant would be much better for pollinators, nutrients, and stable carbon sequestration
- Because of roots, they help with groundwater recharge
- Huge list of candidate species, want to quantitatively measure everything about a plant
- What does it mean for fire, composition, etc
- Piroecophysicology has link for what it means to be flammable
- Think it would be cool for undergrad research to go on
- Having to go out in the field and od missing pieces and write up project paper to publish for them to take with them to grad school
- Want to think about local flora and start with them and good starting point
- Will have web page with species that are good for fire resistant and erosion control and their dimensions

Board Questions:
- End goal is culmination of paper, would you come up with an app or something
  - Definitely thinks it needs to be on an online service
  - The academic paper will help undergraduate students
  - Will distribute to forest management
- Talking about using firesafe native plants and How are you going to navigate fire safe plants vs fire adapted plants in the area. What do you mean by fire safe species
- It would not be fire adapted plants but fire tolerant
- Navigating that would be relating functional trait data
- Want to reduce height and will take trait and fire behavior
  - Traits are gonna burn but it reduces fire behavior and it wont ignite as easily and it wont burn as often
  - Definitions will grow as part of discovery
  - Will be low intensity and low way to spread

- For the internship position itself, is there a way to reduce those 20 hours a week
  - Have a lot of undergrads that volunteer and figure it out
  - Researcher is point person and volunteer can help out
  - Seasons of work
    - Reducing hours would be okay not hardset for that

- The multivariable statistical analysis seems really complicated, could you talk about traits you already got before
  - Important traits include phenology, when they germinate seed and flower and when they would lose water or not
  - When they are competitive so they can compete with non native
  - Rooting depth
  - Growth form, if it grows erect, crosstraight or erect
  - Would want low species but wouldn't want them spreading out so much
  - Primarial species, some grow back really quickly, some clone,
  - Will require treatment, need them to be able to withstand maintenance
  - Habits such as perennial or annual, its reproductive form such as dispersal methods
  - Want to keep in mind what kind of reproductive capabilities the plants have for sure
    - Pollinator services and height and width

- What kind of maintenance are you planning to do
  - Use except these plants to be mowed and whipped but probably wouldn't be dozed here
  - Whipped will keep them nice and low and reduce ecological impact

Board Discussion:
- Kaley am not convinced of the feasibility of the project
- The effect of mowing on plants is that it selects for weedy species
- Mowing and natives don’t really mix very well
- Fire safe and fire adapted is really important
- What kinds of things create low intensity high frequency burns is the chaparral trees while the grasses tend to be higher intensity
- Not sure if it would work
- Alternative to mowing near property, didn't say that
- Valuable perspective that we often don’t have
- Issue was more around timeline
- Talking about some of those plat traits and that is extremely labor intensive
- It is no small feat
- Field work is quite intense
- Field season matters a lot
- Measuring the leaf size in the spring looks different than the fall
• Would have to have a couple of field seasons
• Confident in that sort of thing
• the field work will be larger than he expects it to be

MOTION/SECOND: Jeremy/ Kiya
Motion language: Motion to table discussion on FALL 20-11
ACTION: Consent
Additional approval required: YES (Senate)

ADJOURNMENT AT 9:52
MOTION/SECOND: Jeremy/Kiya
Motion language: Motion to adjourn at 9:52 PM
ACTION: Consent
Additional approval required: NO