CSU Council on Ocean Affairs, Science & Technology

Graduate Student Research Award Program  2019-20

To hear the audio, please
use your computer speakers OR  use your telephone:
Number: 669-900-6833 Meeting ID: 232 837 970
In the next 30 minutes

• What is COAST?
• Graduate Student Research Awards
• Questions?
What is COAST?
CSU-wide network of faculty members and students actively working to address critical marine, coastal and coastal watershed issues.
What does COAST do?

Promotes research and education to advance our knowledge of coastal and marine resources and the processes that affect them.
COAST supports marine, coastal and coastal watershed related research

The open and coastal ocean
COAST supports marine, coastal and coastal watershed related research

Coastal zones (bays, estuaries, beaches)
COAST supports marine, coastal and coastal watershed related research

Coastal watersheds

Clear and direct linkages with coast or ocean!!!

Anadromous fish, surface and groundwater flow, water quality, land use, etc.
Work supported by COAST is NOT limited to California
COAST Goals

Advance our knowledge of coastal and marine resources and the processes that affect them.

Develop innovative solutions to the economic, sociological, ecological and technological challenges that our coastal zone faces.

Promote environmental literacy to foster stewardship and sustainable use of our coast.
Stay informed!

Open Funding Opportunities
- 2019-20 Graduate Student Research Award Program
- 2019-20 Rapid Response Funding Program
- 2019-20 Short Course, Workshop, and Symposium Funding Program
- 2019-20 Seminar Speaker Series Program
- 2019-20 Student Travel Awards

Announcements
- Rapid Response Project Spotlight: The emergency rescue, digitization and dissemination of the Peter Fischer Marine Geophysical Data Collection

Get Involved
- Become a Member
- Sign up for the Student Email List
- Sign up for the Faculty Email List

www.calstate.edu/coast
Stay informed!

csucoast
Graduate Student Research Awards

Deadline: January 30, 2020, 5:00 pm PST
Graduate Student Research Awards

• $3,000 awards to graduate students conducting marine, coastal and coastal watershed research
• Plan to make ~33 awards this year
• Must be enrolled in CSU grad program to apply
<table>
<thead>
<tr>
<th>Date</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sept. 17, 2019</td>
<td>Announcement released</td>
</tr>
<tr>
<td>Jan. 30, 2020</td>
<td>Applications due by 5:00 pm PST</td>
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<tr>
<td>Feb.-April 2020</td>
<td>In review</td>
</tr>
<tr>
<td>April 20, 2020</td>
<td>Earliest notification</td>
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<tr>
<td>May 15, 2020</td>
<td>Project start date</td>
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<tr>
<td>Dec. 1, 2020</td>
<td>Post-award reports due</td>
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</table>
Complete application includes

1. Application form
2. Letter of recommendation from CSU thesis advisor
3. Departmental Commitment Form (for some applicants)
Application form required items

• Keywords
• Committee members
• Suggested reviewers
  – May not be from home campus, members of committee, potential COI
• Budget summary
Project description

• Product of your own work
• Advisor should provide input and feedback
• See examples of highly ranked applications from previous years
1,500-word limit

Does land use in a deforested, recently regenerated, and old growth forest affect hydrologic discharge?

<table>
<thead>
<tr>
<th>Hydrologic Components</th>
<th>Deforested land</th>
<th>Reforested (10-30 year forest)</th>
<th>Old Growth (100+ year old forest)</th>
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<tbody>
<tr>
<td><strong>Remote Sensing</strong></td>
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<td>• Ground truth LandSat Satellite data</td>
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<td>• Quantify land use changes over time</td>
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<td><strong>Atmospheric precipitation</strong></td>
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<td>• Local monitoring: rain gauges, precipitation collectors</td>
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<td>• Regional monitoring: Instituto Oceanografico de la Armada</td>
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<td><strong>Evapotranspiration (water pathway out of the system)</strong></td>
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<td>• Sap flow meters, radial sap velocity</td>
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<td>• Species specific vegetative water source</td>
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<td><strong>Soil infiltration (water pathway on the ground)</strong></td>
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<tr>
<td>• Particle size distribution</td>
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<td>• Soil moisture &amp; hydraulic conductivity</td>
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<td><strong>Soil recharge at depth (water pathway through the unsaturated zone)</strong></td>
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<tr>
<td>• Soil moisture</td>
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<td>• Soil compaction</td>
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<td><strong>Geology</strong></td>
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<td>• Identification of bedrock/saprolite</td>
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<td><strong>Ground water fluctuation and stream flow</strong></td>
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<td>• Groundwater wells with water level loggers</td>
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<tr>
<td>• Surface water level loggers</td>
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Figure 1 (A) CA spiny lobster catch-per-unit-effort. Fitted line represents 2-year moving average. Data from CDFW (B) Scripps Per Average Monthly Surface Temperature 1916 to present. (C) Figure 3A. Average SST (°C) of the SCB in the recent past (1: 1980-2010) and near-future (2: 2075-2100). Created from output of a Regional Ocean Modeling System informed by a Community Earth System Model (RCP 8.5) using data from the National Center for Atmospheric Research.

Text in figures and tables counts
In addition, the pups that were found had a lower body mass (Elorriaga-Verplancken et al. 2016). This study also did not address the ability to date the isotope values on the pup fur, so it must be inferred that the isotopes reflect current prey availability and not a series of points that could be offered from analyzing vibrissae. Other studies have looked at the change in isotope values over time using vibrissae, but focused on Stellar Sea Lions and compared values of a pup before and after weaning rather than the diet change of an adult after disturbance (Stegall et al. 2008). There are no prominent studies that compared the change in diet over time using isotopes, rather the most developed study in this direction looks at the isotopes before and after disturbance (Elorriaga-Verplancken et al. 2016). Although this gives valuable insight into the dietary shift, it excludes the time of the shift and its overlay with the time of surface temperature increase. Some of the fecal studies did compare the solids that were founds, such as cephalopod beaks or ooliths (Garcia-Rodriguez and Aurioles-Gamboa 2004), but these compared what was found at different time steps rather than a continuous time comparison. My proposed study will fill the gaps in this knowledge; the stable isotope analysis of the vibrissae eliminates the need to tag animals and provides a more accurate timeline to when the shift in diet occurred. This allows us to overlay the isotope values with SST index and highlight at what point [1500-word limit reached, rest of Project Description redacted]
of 70 cm and collecting samples for determination of composition. Particle size analysis will be preformed at the US Forest Service Pacific Southwest Research Station When saprolite or bedrock is reached, and a sample is able to be collected, it will be shipped back to the Geology Department at [1500-word limit reached, rest of Project Description redacted] where rock type and mineralogy can...
1,500-word limit

>800 words over limit
References

- In-text citations included in word count
- References section NOT included in word count
- Any standard citation format is acceptable
  - See links in announcement
Timeline

• Clear plan for use of award beginning May 15, 2020
  – Can reference activities prior to 5/15/2020 but funds cannot be used for anything before that date

• Interim milestone dates

• Anticipated graduation date
Relation to COAST Goals

• Refer to page 1 of announcement
• Emphasis on CA but only 5 points
  - Excellent applications not related to CA should be able to score high enough to receive funding
• Coastal watershed
  – MUST be CLEAR and DIRECT link with coast/ocean
Budget

• Construct your own!
  – Budget template provided

• Research support ➔ Your department
  – You need a Departmental Commitment Form

• Living expenses ➔ Financial aid office
  – Unqualified scholarship
  – Taxable
  – Financial aid impact
Living Expense Justification

• Explain HOW the award will help you in detail
  – Rent
  – Monthly living expenses
  – Child care
• What will this award allow you to do that wouldn’t otherwise be possible?
  – E.g., reduce your hours at an unrelated job and therefore make progress toward your degree more quickly
Departmental Commitment to administer
COAST Graduate Student Research Award funds on behalf of Student Awardee

If you are requesting that all or a portion of your $3,000 award will be paid to your Department for you to use for services and supplies, you must complete this form and obtain all necessary signatures. If you are requesting that the entire award be paid directly to you via financial aid, you do NOT need to complete this form. All information except signature MUST BE TYPED.

Applicant Information

Student Name: [ ]

Department: [ ]

Advisor: [ ]

Amount of award to be administered by Dept: [ ]

Research Project Title: [ ]

CSU Campus: [Select CSU Campus]

Email: [ ]

The student above is applying for a COAST Graduate Student Research Award (https://www2.calstatel.edu/impact-of-the-csuset/ourresearch/coast/funding/pages/student-funding.aspx). If the student is selected to receive an award, funds will be transferred in May 2020.

By signing this document, the Department Chair commits to the following in the event that an award is made to the above named student:

- The amount of funds specified above will be received by the campus from COAST via Cash Posting Order (CPO)
  - Funding provided originates from the State General Fund (CSU Fund 485).
  - Awards cannot be transferred to campus research foundations, auxiliaries, corporations, etc.
  - Awards are not subject to campus indirect costs (facilities and administrative fees) or any other type of fee from any source.
- The funds will be placed into an account that the student or student’s advisor can access for the purposes specified in the student’s Budget that is part of the application to COAST.
  - All funds awarded must be used for the specific purposes requested and approved and may not be converted to other uses without prior authorization from COAST.

Department Chair

Name (Printed): [ ]

Email: [ ]

Signature: [ ]

Date: [ ]

Department/College Fiscal Contact (for chartfield information and CPO notification)

Name (Printed): [ ]

Email: [ ]

Phone: [ ]
When do you need a Departmental Commitment Form?

- If you are requesting that **any part** of your award go through your Department, you need a DCF.
- If you are requesting that your entire award go through Financial Aid, you **DO NOT** need a DCF.
Letter of Recommendation

• Discuss letter with your advisor
  – Ensure s/he will write a strong, detailed letter
    • Value of your project
    • Your ability to conduct and complete the work

• Your responsibility to ensure it is submitted ON TIME
  – Advisor will submit directly to COAST
Application Submission

- Submit both the .docx and .pdf application files.
- Within one hour of application submission, you will receive a confirmation email from COAST. Please save this email for future reference!
  - If you do not receive a confirmation email, please contact COAST immediately to ensure your application was received.
  - If you receive more than one confirmation email, save all of them.
Financial aid considerations

- Consult with a campus financial aid officer prior to accepting any support offered through this program

• Any funding made available to you through Financial Aid could lead to a decrease in other forms of financial assistance
Contact Information

Kim Jassowski
kjassowski@csumb.edu
(831) 582-4209

www.calstate.edu/coast
Questions?