

# Instructionally Related Activities Funds Request Fall 2019

## ▼ Submitter

### Submitter Name

Allison Alvarado

### Submitter Email

allison.alvarado@csuci.edu

## ▼ 1. Basic Details

### Activity Title

Santa Rosa Island field trip for Conservation Genetics Special Topics course

### Activity/Event Date

9/27-29/2019

### Date Funding Needed By

8/31/2019

### Previously Funded?

- ☒ No  
☐ Yes

### Additional Proposers

N/A

### Academic Program(s)/Center Name(s)

Biology

### Estimated total Course Fee revenue

N/A

### Amount Requested from IRA

\$3,614.00

## Estimated Number of Students Participating

24

### ▼ 2. Brief Activity Description

Describe the activity and its relationships to the educational objectives of the students' program or major

#### **Brief Activity Description**

This trip to Santa Rosa Island will provide hands-on, experiential learning for the Fall 2019 Conservation Genetics (Biol 490) course. In this class, we combine field methods and laboratory techniques to provide students with an understanding of the principles of evolution and conservation biology. The Channel Islands serve as a natural outdoor laboratory to explore the relative contribution of genetic drift vs natural selection in shaping diverging island populations. Each island provides a unique combination of characters, i.e. size, degree of isolation, and environmental conditions. For example, Santa Rosa Island is smaller, more isolated, and relatively windy and cool compared to Santa Cruz Island. In the classroom, we use the scientific literature to do a case study of the population genetics and adaptive variation (i.e. genes that differ in response to environmental conditions) of island fox populations across all the islands, with an emphasis on the Santa Rosa Island population. Giving the students a chance to see an island fox in their natural habitat closes the loop on this project. Also, from a conservation perspective, island populations are extremely vulnerable to extinction due to both natural processes and anthropogenic factors. As a class, we explore how different groups of organisms (e.g. plants vs birds) vary in their life history traits (e.g. dispersal mechanisms) and in their susceptibility to human-induced environmental change. For example, there are many more endangered endemic plants compared to birds because plants have limited dispersal (e.g. restricted gene flow) and have been heavily affected by non-native species such as invasive grasses as well as historical grazing. The class will compare the modified area around the ranch to other habitats with varied levels of disturbance.

### ▼ 3. Learning Outcomes and Relation of IRA to Course Offerings

All IRAs must be integrally related to the formal instructional offerings of the University and must be associated with scheduled credit courses.

1. Please list all classes that directly relate to the proposed activity.
2. For each class listed, describe in detail how exactly the IRA activity will be integrated with the class's activities, how often/ on what expected date(s), and to what extent

#### **Learning Outcomes and Relation of IRA to Course Offerings**

This activity will support the learning outcomes of the Conservation Genetics Special Topics course including the following:

- Understand the evolutionary relationships among taxa and the historical processes that generated global and local patterns of biodiversity.
- Interpret & present results from primary literature.
- Evaluate conservation issues.
- Understand conservation issues associated with endangered species and management of their critical habitat.
- Examine small populations from a genetic and evolutionary perspective.
- Discuss local and global issues pertaining to the conservation of biodiversity, including the assessment of threats & protection strategies.

### ▼ 4. Activity Assessment

Describe the assessment process and measures that the program will use to determine if it has attained its educational goals.

**Please note that a report will be due at the end of the semester.**

## Description of Assessment Process

1. While on the island, students will be given time to write an essay tying their island experience to topics learned in the classroom. Specifically, they will be prompted to discuss the threats (e.g. habitat destruction, invasive species, disease) faced by island species and address the specific management efforts being undertaken to mitigate the impact of those problems.
2. Upon returning, students will also enter a blog post on our course website about the interplay between isolation and community that they encountered while on the island. The goal is to for students to use their own personal experience to reflect upon how those two factors shape the life history of island populations.

## ▼ 5. Activity Budget

Please enclose a complete detailed budget of the entire activity. Indicate specific items that you are requesting IRA to fund.

You should use either the Regular Activity budget (for events on campus) or -- if your event involves any travel-- you MUST use the IRA Travel Budget Form.

You can download both of the IRA Excel Budget sheets at <http://www.csuci.edu/ira/application.htm>.

### Activity Budget

[Alvarado\\_Conservation Genetics\\_ira-travel-budget-form-ay18-19.xlsx](#)

## ▼ 6. International Trips

If your event is an international trip submitted through the Center for International Affairs, you must include copies of:

1. Complete Center for International Affairs/ UNIV 392 proposal
2. The program budget as submitted to the Center for International Affairs (to ensure congruency between the two budgets)
3. as well as a copy of the course syllabus

### Center for International Affairs Budget

### Copy of Center for International Affairs Proposal

### Course Syllabus

### Certification

☐ I certify that students attending this trip are not previous or repeat attendees of a prior International UNIV 392 Trip

## ▼ 7. Sources of Activity Support

Please list the other sources of funding (including course fees), and exact expected amounts of additional support for the activity. Please indicate if there are no other sources of funding

### Other Sources of Funding

There are no additional sources of funding.

## ▼ 8. Promoting Participation

### What is your intended audience and how do you intend to market this to your students?

With minimal prerequisites, Conservation Genetics is open to any student who has completed a year of introductory-level biology (Biol 200 and 201). Although the topics are advanced, I have designed this course to be inclusive by not assuming previous knowledge of population genetics (which I teach from the ground up). As a result, Conservation Genetics has typically been comprised of a mix of sophomores, juniors, and seniors, including students who are not Biology majors. Since it's a relatively new course, I advertise and promote this Conservation Genetics class by posting flyers around campus, which also increases the diversity of the students who take it.

### If this is an event that is off campus, how do you plan to bring back the benefit of this event to campus?

Conservation genetics students going out to Santa Rosa Island will share their experience with other students and faculty at the university. I will select several blog posts from our class website to post on the Biology department's social media webpage; this will increase the visibility of the Santa Rosa Island Research Station and the opportunities associated with the Santa Rosa Island Research Station.

## ▼ 9. Approval and Acknowledgement

### Program Chair/Director

Mozingo, Nancy M

### Dean

Wyels, Cynthia (Arts & Sciences)

### Conditions and Considerations

☐ **Artist/Performer/Speaker Fees & Honoraria:** On the Activity Budget, please indicate whether the vendor's price was set by you/CI Representative, or is a fee that was set by the vendor.

☐ **Large Event:** For a large event, consultation with the campus Event Coordinator's office at (805)437-8548 is required.

☒ **Field Trip:** Sponsor must comply with all policies found at:

<http://www.csuci.edu/rm/programs/academic-field-trip-guidelines-and-forms.htm>. If approved, Identified Risks of Participation and Release Agreement must be submitted for each student to the Program Office (Public Folders-HR Forms).

☐ **Involves Human Subject Data Collection for Public Dissemination -Requires IRB Approval :** If Project Sponsor proposes to conduct research with human participants, the proposal may be subject to Institutional Review Board for the Protection of Human Subjects (IRB) review. All research that involves any type of interaction with human subjects - from simple surveys to complex biomedical procedures - must be reviewed and approved by the IRB prior to starting the research. Data for "Public Dissemination" indicates interviews/surveys that result in a journal/poster session/newsletter, etc.

☐ **IT Requirements:** If your activity has IT requirements, coordination with and approval from IT Administration is required.

☐ **International Travel:** Requires International Travel application be submitted to Center for International Affairs. Include copy of CIA budget and course syllabus in your IRA application. Must utilize the University's Foreign Travel Insurance Program (FTIP) and follow all International Travel Guidelines listed at: <http://www.csuci.edu/rm/insurance/foreign-travel.htm>

☐ **Risk Management Consultation:** Events that involve or engage students directly with a performer or artist (i.e. in a workshop or other than as a passive audience member) will require consultation with Risk Management. Requires proof of correspondence with Risk Management.

☐ **Space/Facilities Services Requirements:** Consultation and coordination with Facilities Services is required.

### Acknowledgement

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☒ I acknowledge that I have reviewed and accepted the Conditions and Considerations herein. I acknowledge that the activity sponsor will be responsible for managing purchases, travel arrangements, and all transactions related to approved activities. Please check off boxes as appropriate.

### ▼ Chair Review

#### Recommendation

- ☒ I recommend approval of the IRA Funds Request described on this page  
☐ I DO NOT recommend approval of the IRA Funds Request described on this page

#### Comments

 Nancy Mozingo Mar 19 2019

### ▼ Dean Review

#### Recommendation

- ☒ I recommend approval of the IRA Funds Request described on this page  
☐ I DO NOT recommend approval of the IRA Funds Request described on this page

#### Comments

 Cynthia Wyels Mar 27 2019