2015 GGE Awards Seminar

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Outline

1. Pizza!!
2. What do you need funding for?
3. External / Internal Funding
4. Travel Funding
5. Closing Thoughts
6. Appendix: Grant Writing Tips
What do you need funding for?

- Tuition & Fees
- Living expenses
- Research
- Travel to meetings
## 2015-16 Full Time Grad Fees

<table>
<thead>
<tr>
<th>Fee</th>
<th>Annually</th>
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<tbody>
<tr>
<td>GSA Fee</td>
<td>$36</td>
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<tr>
<td>Memorial Union Fee</td>
<td>$86</td>
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<tr>
<td>Facilities and Campus Enhancements Fee</td>
<td>$404</td>
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<tr>
<td>Campus Expansion Initiative</td>
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<tr>
<td>Student Facilities Safety Fee</td>
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<tr>
<td>Student Services Health Fee</td>
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<tr>
<td>Health Insurance</td>
<td>$3432</td>
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<tr>
<td>Student Services Fee</td>
<td>$972</td>
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*Full Time Resident Tuition* $11,220
What should you do first?

- Talk to your major professor, labmates, and cohort

- Start on CA residency

- Fill out FAFSA every year by March 2\textsuperscript{nd}
Residency

• Become a CA resident as soon as possible (domestic students only)
  – CA driver’s license
  – CA car registration
  – CA voter registration
  – CA address listed as permanent address on all school and employment records
  – Pay CA income taxes
  – If having trouble getting paperwork processed, go to Mrak Hall in person!

External fellowships/grants

• Where to find them?
  – Talk to your major professor
  – Talk to peers
  – Current papers written on the topic you are interested in – who funded it?
  – Department newsletters
  – In-house Websites
    • http://ecology.ucdavis.edu/funding/index.html
    • https://gradstudies.ucdavis.edu/current-students/financial-support
    • http://johnmuir.ucdavis.edu/field-notes/funding
    • http://www.des.ucdavis.edu/faculty/baskett/links/academia.html#Grad
External fellowships/grants

• Large grants can cover all expenses for multiple years
  – NSF GRFP: October 26, 2015 (For Life Sciences)
  – Dept of Energy, Sea Grant, Dept of Defense, others depending on discipline
  – EPA STAR (not every year), 2015 deadline was May 26

• Smaller grants can fund you or your research for a quarter or more (could help you get pilot data to get a bigger grant after, often not as competitive!)

• There are many applicable grants depending on your research topic
External fellowships/grants

Reserve-specific grants: [http://nrs.ucop.edu/grants/](http://nrs.ucop.edu/grants/)

- **Mathias Research Grant** ($3000 max)
  - For research at any UC Natural Reserve
  - This year’s is due October 26; call usually comes out in August

- **Natural Reserve System Grant** ($3000 max)
  - Also for research at any UC Natural Reserve, but only a few UCs are eligible – good odds!
  - Usually due late winter - last year’s was due March 2, 2015

- **Valentine Eastern Sierra Reserve Grant** ($3000 max)
  - For research at Valentine Eastern Sierra Reserve, Sierra Nevada Aquatic Research Lab, or Valentine Camp
  - Last year’s was due in mid-February; call usually comes out in December

- Start networking with NPS, local agencies, etc. to see if your research aligns with their goals, they often have smaller pots of money to facilitate research that will inform their management, etc.

- **Deadlines are often in early fall!**
- **Check for funding at your research station!**
Internal fellowships/grants

- **GGE Fellowship**
  - includes monthly stipend, registration fees, and non-resident tuition*
  - up to 2 quarters from GGE and 1 from major professor per year
  - does not include summer quarter

- **Henry A. Jastro research fellowships**
  - you must be housed in the College of Agricultural and Environmental Science (Depts: ESP, LAWR, Plant Sci, WFCB, and others)
  - up to $3,000

- **GGE Endowment Funds**
  - Can go to any department

- **University fellowships**
  - on same application as Block Grant
  - funding amounts vary

- **All due December 1st; for eligibility and evaluation details:**

- **NOTE that letter writers’ contact information must be entered by November 15 (letters are due December 1)**
GSR: Graduate Student Researcher

• How to find/create a position?
  – Talk to your major professor
  – GGE listserv

• Compensation plan:
  http://ecology.ucdavis.edu/funding/gsrcompensationplan.html
  – CHECK your offer information to make sure you’re being
    compensated at the appropriate level
  – Pay increase after passing quals – file candidacy forms ASAP!

• Fee remission (employed ≥25% time)
  http://studentaccounting.ucdavis.edu/feeremissions.cfm

• Major professor (grant) pays tuition & fees, except in summer

• Science Policy summer GSR opportunity: UCD ELIPPS
  program http://elipps.ucdavis.edu/; application comes out in Jan
Work study GSR
(Domestic Students Only)

• Subsidized GSR position
• Apply through major professor
• Work may be completed in your lab
• Financial eligibility must be determined by Financial Aid (need based) **you MUST fill out your FAFSA to be eligible!!
• Limited # each year (look for email from Elizabeth)
Teaching Assistant / Reader

- TA = active participant in classroom
- Reader = grader
- Where to find them?
  - Individual academic departments
  - Talk to professors who teach classes interesting to you
  - List of departmental TAships and more info at:
    - [http://ecology.ucdavis.edu/funding/departments_ta_positions.html](http://ecology.ucdavis.edu/funding/departments_ta_positions.html)

- Fee remission (must be employed ≥25% time)

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<tr>
<th>Department</th>
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<tr>
<td>Agricultural &amp; Resource Economics</td>
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<tr>
<td>Agronomy &amp; Range Science</td>
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<tr>
<td>Animal Science</td>
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<td>Anthropology</td>
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<td>Economics</td>
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<td>Entomology</td>
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<td>Environmental Horticulture</td>
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<td>Environmental Science &amp; Policy</td>
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<tr>
<td>Environmental Toxicology</td>
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<tr>
<td>Evolution &amp; Ecology</td>
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<td>Geography, c/o Environmental Design</td>
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Travel and other small grants

• Travel grants: To present at meetings/conferences, some require talks/posters, others do not
  – UCD Grad studies travel grant (targeted towards grads near completion; up to $1000)
    • due March 15 and October 15
      http://gradstudies.ucdavis.edu/ssupport/internal_travel.html
  – Graduate Student Association travel award ($50-500)
    • due mid-January and mid-May (often need to follow up with reps)
      http://gsa.ucdavis.edu/funding/travel-awards/
  – Check your department for additional travel awards (e.g. BML, Plant Sciences: http://psapps.plantsciences.ucdavis.edu/ucd-access/gst_home.aspx)

• If your advisor is a member of the Center for Population Biology (CPB), consider affiliating with CPB
  – Great additional community on campus
  – Annual research funding opportunity for affiliates; can be used for research or travel
  – 2015 deadline for affiliate application: October 30
Last words

• Plan your funding far in advance

• Talk to your major professor

• Start your applications early

• Talk to labmates and peers

• Read and re-read the instructions!

• Keep applying!
Fellowship Application

The Graduate Group of Ecology offers GGE Fellowships, nominations for University fellowships and Henry A. Jaeckel Research Fellowships for continuing students using one application. Please follow the instructions below if you are interested in applying for these funds.

Application Deadline: December 1st

Your fellowship application should include:

- Award Cover Letter: Download the cover letter here. Use this form to indicate which of these fellowships you would like to be considered for and submit the form to the CGE.

- Fellowship Application: You must complete all parts of the University’s online Fellowship Application

- Research Proposal: Submit your proposal to the CGE. Be sure to read the formatting guidelines below carefully. Please note that improperly formatted applications will not be considered for funding. It is very important that you follow the directions to avoid being disqualified from consideration.

- Three letters of recommendation: Be sure to register your recommenders early to give them time to complete the electronic letter of recommendation. One letter must be from your Major Professor. (Note: It is a good idea to provide your major professor with a copy of your proposal before the letter is written). A statement regarding the matching support component should be included in this letter.

- UCD Transcripts: provided by the GGE office.

- Resume or Curriculum Vitae: Click here for an approved sample. The Approved CV format has a two page limit. Use the CV to include information that is relevant or referred to in your proposal. Please submit your CV to the CGE.

- DO NOT include supplementary materials; they will be not be considered and will be discarded.
Grant Writing 101

1. Know your audience
2. The little big things
3. Structure matters
4. Visual aids
5. You as a package
6. Closing thoughts
1. Know your audience

- Find out who is reviewing your proposal (yes, you can ask!)
  - Academics? Ecologists? Managers?
  - What do they want to fund?
  - What do they value in a proposal?

- Tailor your approach
  - Academics will appreciate theoretical justification (contribution to the field)
  - Managers will want to see applied value
  - GGE reviewers may want to see both
2. The little big things

• Follow the rules!
  – Length limits/Letters of recommendation
  – Budgets/Citations

• Reviewers will look for reasons to disqualify an application (because there are so many)

• Eliminate errors (spelling, missing citations)
3. Structure matters

- Proposal structure makes it easy for reviewers and organizes the flow of information (meets expectations)
- Typical structure
  1. What do we know
  2. Reveal the gap
  3. Describe the approach
  4. Identify the goals
FOOD WEB COMPLEXITY AND SPECIES DIVERSITY

ROBERT T. PAINE

Department of Zoology, University of Washington, Seattle, Washington

Though longitudinal or latitudinal gradients in species diversity tend to be well described in a zoogeographic sense, they also are poorly understood phenomena of major ecological interest. Their importance lies in the derived implication that biological processes may be fundamentally different in the tropics, typically the pinnacle of most gradients, than in temperate or arctic regions. The various hypotheses attempting to explain gradients have recently been reviewed by Fischer (1960), Simpson (1964), and Connell and Orias (1964), the latter authors additionally proposing a model which can account for the production and regulation of diversity in ecological systems. Understanding of the phenomenon suffers from both a specific lack of synecological data applied to particular, local situations and from the difficulty of inferring the underlying mechanism(s) solely from descriptions and comparisons of faunas on a zoogeographic scale. The positions taken in this paper are that an ultimate understanding of the underlying causal processes can only be arrived at by study of local situations, for instance the promising approach of MacArthur and MacArthur (1961), and that biological interactions such as those suggested by Hutchinson (1959) appear to constitute the most logical possibilities.
4. Visual aids

- Make sure visual aids actually aid
- Don’t add them just because they look nice
- Include your pilot data!
5. You as a package

• Get your CV evaluated
  http://icc.ucdavis.edu/mpp/calendar.htm

• CV highlights you as a grad student
  1. Funding/Awards
  2. Communicating science (pubs/presentations)
  3. Service (academic/extramural)

• Letters of recommendation
  – Develop relationships early and maintain them
  – Find out the style for letter writers and thank them!
6. Closing thoughts

- Apply early and often
- Have peers review your proposals and review others
- Benefits of proposal writing extend beyond funding
  - Allow you to organize and clarify the science you will do
  - A great reference for yourself
  - Great way to kick start manuscript writing
- Thank your funders if they choose you!