



Next Generation Careers *Innovation in Environmental Biology* October 17 -19, 2016 ☼ CCMIT

I) Academic Panel / Working Group

What do faculty and instructors need to know concerning careers in an evolving environmental biology field beyond academia?

- Faculty/universities are historically very good at imparting information about disciplines, often less good at career advice outside of academia.
 - The right professors can inspire, spark new interests, change lives (and the wrong ones stall or derail ambition)
- Most environmental biology careers are not in academia, but in other sectors.
 - How many academics have had experience outside of academia and journal reviews?
 - Working on government commissions or advisory boards?
 - Working with environmental NGOs?
 - Experience outside of consulting?
- The rate of change in evolution of job types is rising. Flexibility is important
- Many faculty have research grants on which undergrads and grads can work
- Academics often have informal contact with some former students—an alumni base—and colleagues outside of academia
- Most universities have career services, but usually institution-wide, not specific to disciplines.
- What opportunities/internships exist in nearby communities?
 - How might this vary by geography?
 - What is faculty awareness of them?
- Some fields are clearly more educational (e.g., evolutionary biology), some more training (e.g., GIS). But it's a continuum.
- How can faculty help foster mentorships beyond academic institutions?
- How can we best help faculty? A systematic approach?

Where are the jobs (building on the job scan and experience noted in focus groups.)

Universities' abilities to hold job fairs. Similar to what SNRE does every year. UMUC is starting to do it, but there is not much in the environmental sphere.

II. Employers Panel

Employer Panel / Working Group

1) How do employers interact with job seekers and prospective employees about careers and career opportunities?

- Meeting / Talking to someone who is interested in that career (what sort of networking is needed?)
- Professional societies
 - How to use professional societies and other networks to be able to recruit applicants?
- Internship programs
 - Outreach for these opportunities is important
 - How to ensure target audience is reached
 - Provides critical experience for potential employees

2) What do job seekers need to know about these diverse career pathways?

- Is it necessary to be an expert in the mission of the employer? E.g. must prior experience involve trees if the job is with the Forest Service?
- How does the job application process work?
- What does it take to maximize chances of landing the job?
- How to acquire the skills needed to get the job?
- Once hired, how to acquire the skills needed for the job?
- Do they need specific types of prior experience (e.g., lab or field experience, research)?

Example: USAJobs- website for all Federal jobs

- Lots of potential questions about how to use USAJobs
 - How to search the listings- What kinds of jobs do students want?
 - How to interpret the codes for pay etc
 - How to successfully apply, once a good job is found
- Do trainings exist for USAJobs that could be shared with University career counseling offices?
- Could trainings with this specific goal (recruiting BA level graduates into STEM careers) be created? (USAJobs lists a lot of different types of jobs)

3) What are the skills and how to prepare students?

- Are there sets of skills that universities are providing well already and others they are missing?
 - Course work
 - Experience doing relevant field work
 - Extracurricular activities- leadership experience
 - Organizational skills? Grantwriting? Budget management?
 - Facilitating Internships
 - Internships are critical for many (all?) job types (Agency, Non-profit and Private Sector)
- Professional conduct (timeliness, how/when/with whom to communicate with team members or clients)
 - How to effectively communicate with very busy people (the boss)?

- Who is/are the boss(es)?
 - Many employers look for flexibility, being able to adapt and being able to “fit in” a corporate culture. What are the implications for minority students who are entering fields where they are underrepresented?
 - How to effectively demand mentorship?
 - How to use professional societies and other networks to be able to advance in your job?
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III. Societies Panel / Working Group

The following are a set of ideas that have surfaced from surveys and focus groups

A) What career assistance services can professional societies have to offer students?

1) Develop a database of diverse careers

Build a true resource with data from across hundreds or thousands of society members and their former students: "this is what a student can do with just an X degree in Y field".

[A small-scale example from the Society for the Study of Evolution \(for post-PhD specifically\)](#)

2) Reach out to society alumni

Invite those who submit to #1 to share their contact information publicly to help:

- Potential trainees seek information
- Mentors streamline connections with mentees
- Faculty learn about diverse careers
- University personnel or conference organizers identify speakers on careers

3) Establish employer and recruiter networks

Identify destination sectors where environmental biology graduates are in demand to

- Articulate relevant skills to enhance in courses
- Develop Internship opportunities
- Get involved in Career Fairs designed for undergrads

4) Make diverse careers more visible

- Highlight career stories from different sectors using different tools e.g. videos, podcasts, and various platforms attractive to undergrads e.g. twitter, snapchat, FaceBook, and other social media
- Increase student understanding of the marketability of their degree

5) Develop presence and activities of local/regional chapters

Chapters can organize cost-effective networking events and conferences to engage undergraduate students and local/regional employer networks

6) Influence policy

Interact with law makers to expand demand in environmental biology job market.

7) Engage communities

Support citizen science efforts to increase public engagement in environmental biology

8) Influence university course offerings

Proactively work with universities, and especially primarily undergraduate institutions, to pay attention to the skills desired by employers.

B) How can professional societies work with faculty (members) to be more effective mentors in diverse careers?

1) What sorts of materials are needed? E.g.

- List of websites that describe careers
- Video clips of graduates in diverse careers
- Job sites

2) What sorts of faculty support are needed? E.g.

- Workshops for faculty
- Forums for faculty to exchange ideas on effective career mentoring

Resources/References

SSE Diverse Careers Workshop Report

<https://dl.dropboxusercontent.com/u/20038531/Diverse%20careers%20workshop%20report.pdf>