

Joshua R. Nahum

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Professional Preparation

- **University of Washington** Seattle, WA
Ph.D. in progress (expected thesis defense in Dec. 2012), Biology Sep. 2007 - Present
- **University of Washington** Seattle, WA
Bachelors of Science, Biology (GPA: 3.69, Annual Dean's List) Sep. 2005 - Sep. 2006

Publications

- [1] Joshua Nahum, Brittany Harding, and Benjamin Kerr. Evolution of restraint in a structured rock-paper-scissors community. *Proceedings of the National Academy of Sciences*, 108:10831–10838, June 2011.
- [2] Benjamin Kerr and Joshua Nahum. The evolution of restraint in structured populations: Setting the stage for an egalitarian major transition. In Brett Calcott and Kim Sterelny, editors, *The Major Transitions in Evolution Revisited*, pages 127–140. MIT Press, April 2011.
- [3] Joshua Nahum and Benjamin Kerr. Optimal foraging: A bird in the hand released. *Current Biology*, 18(9):R385–R386, May 2008.

Teaching

- **Undergraduate Curriculum Committee**
Graduate Representative 2009 - 2011
 - Represented the interests of the graduate student body in the Biology Department's Undergraduate Curriculum Committee.
 - Served as a voice for the current undergraduates (being a former undergraduate at UW).
 - Assisted in instituting a new policy to integrate the diverse courses being offered and reduce unneeded redundancy in the department's curricula.
- **Foundations in Evolution and Systematics**
Teaching Assistant 2011
 - Taught a weekly, mid-division, undergraduate discussion section with a strong emphasis on reading and evaluating primary science literature.
 - Developed and implemented curricula to facilitate independent and collaborative scientific writing.
- **Beginning Programming with Python**
Instructor 2011
 - Developed curricula and taught a 7 session workshop introducing biology graduate students to general programming.

- **Experimental Evolutionary Ecology**

- *Teaching Assistant*

2007, 2009, 2010

- Taught a weekly, upper-division, undergraduate lab section, preparing and leading experiments to illustrate evolutionary principles.
- For each of the 3 years, developed new modules/labs for the class inspired by my current research projects.

- **Animal and Plant Physiology**

- *Teaching Assistant*

2007

- Taught a weekly, lower-division, undergraduate lab section utilizing animal and plant specimens, dissections, and live experiments.
- Also formed a voluntary, weekly, late-night study group for the struggling students of the class. The self-selected participants were predominantly under-represented minorities.

Outreach

- **Greenhouse Docent**

- *Community Service*

2007-Present

- Led dozens of one-hour tours of UW's Biology Department's extensive botanical collections.
- Led educational field trips for students of all ages.
- Given many tours to English-as-a-second-language elementary classes.
- Tailored the educational content for each tour, but always strongly emphasized specific evolutionary adaptations each species has toward its respective climate and other species present.

- **Fifth Grade Classroom Outreach**

- *Community Service*

2007-Present

- In weekly visits over the course of six months, acted as scientific mentor to a class of local elementary school students and helped them develop experiments and analyze their results.
- During National Lab Day, led tours of the Kerr lab to 4 classes of fifth graders, demonstrating current projects, and what practicing science looks like.
- Given in-class lectures on microbiology and evolution, and allowed the students to swab surfaces and perform experiments. For instance, to find out if hand washing affects microbial diversity and abundance, students inoculate petri dishes, which are returned to the students after incubation for microbe identification.

- **Blog Post**

- *Internet Publication*

Aug. 2011

- Composed a description of current research of myself and an undergraduate mentee aimed at broad audience for BEACON Researchers at Work.
- Content reposted on UW Biology Department blog.

Honors and Awards

- UW Graduate and Professional Student Senate Travel Grant 2011
- Best Poster at Gordon Research Conference: Microbial Population Biology 2009
- UW Biology Sargent Travel Award 2008
- NSF Graduate Research Fellowship 2008

Presentations and Posters

- Gordon Research Conference: Microbial Population Biology *2009 and 2011*
- BEACON (NSF Science Technology Center) Congress *2009, 2010, and 2011*
- UW Biology Graduate Student Symposium *2007 and 2010*
- EVO-WIBO: Meeting of evolutionary biologists of the Pacific Northwest *2008*

Programming Proficiencies

- General purpose languages (C++, Haskell, Java, and especially Python)
- Statistical/mathematical languages (Matlab, R)
- Web oriented languages (HTML, CSS, Javascript, PHP)
- Tools of the trade (Bash, Git, Vim)
- Familiar with programming paradigms (procedural, object-oriented, declarative, functional) and software development techniques (design patterns, test driven development, continuous integration)