

Benjamin Blonder

Phone: 908 578 6526 Email: bblonder@gmail.com

Current address

1330 N Wilson Avenue
Tucson, AZ 85719

Permanent address

120 Woodland Avenue
Summit, NJ 07901

EDUCATION

University of Arizona. Tucson, AZ. 9/2009 – present.

Ecology and evolutionary biology Ph. D. student. Research projects: “Scaling from vein to ecosystems: leaf venation controls leaf function” (with Brian Enquist) and “Exploring social structure and information flow in ant colonies” (with Tuan Cao and Anna Dornhaus).

University of Idaho. Moscow, ID. 8/2008 – 8/2009.

Candidate for M. Ed. (curriculum and instruction). Certificate in environmental education. GPA: 4.0.

Swarthmore College. Swarthmore, PA. Graduation date: 6/1/2008.

Bachelor of Arts in physics with minors in biology and mathematics. Research project: “Quantification of biomembrane fluidity by confocal microscopy”. GPA: 3.8; in major, 3.9.

University of Oxford. Oxford, UK. 1/2007 – 6/2007.

Two terms spent abroad at St. Edmund Hall studying physics. Research project: “Coevolution on tunable fitness landscapes”. Predicted degree class: first.

RESEARCH EXPERIENCE

Eco-Informatics Summer Institute, Oregon State University. Andrews LTER. 6/2008 – 8/2008.

Field survey and analysis for stream ecology project studying the effect of coarse woody debris on channel morphology and fish habitat. Field methods and informatics coursework.

Marine Biological Laboratory. Woods Hole, MA. 10/2008 and 1/2008.

Externship studying climate modeling and biogeochemical cycling.

Swarthmore College. Swarthmore, PA. 6/2007 – 12/2007.

Built confocal microscope suitable for fluorescence cross-correlation spectroscopy. Wrote control and analysis codes. Investigated temperature-dependent fluidity of biological membranes.

Mellon Institute, Carnegie Mellon University. Pittsburgh, PA. 5/2006 – 8/2006.

Cloned a dye-binding scFv gene from yeast into E. coli and optimized protein expression conditions for crystallization studies. Expanded library diversity prediction software to support position-dependent codon-based mutagenesis simulations.

Rowland Institute, Harvard University. Cambridge, MA. 6/2005 – 8/2005.

Investigated surface plasmon resonance-based sensors with novel geometries and surface enhancements. Built prototype apparatus and analysis software.

TEACHING AND VOLUNTEER EXPERIENCE

Education specialist, McCall Outdoor Science School / AmeriCorps. McCall, ID. 8/2008 – present.

Taught environmental science and community/leadership skills to Idaho K-12 students through residential and outreach programs. Developed and evaluated new curricula on a weekly basis. Led programs and managed up to 14 instructors at a time. Wrote grants in support of new programs.

Science associate, Swarthmore College. Swarthmore, PA. 1/2006 – 6/2008.

Led twice-weekly problem sessions and acted as a resource and liaison for introductory classes. Responsible for attending lectures, preparing solutions, and improving student confidence and comfort with physics. Previous work as grader for introductory and sophomore-level courses. Received excellent feedback from students.

Student teacher, Swarthmore College. Swarthmore, PA. 10/2007 – 6/2008.

Developed and taught student-run seminar on the physics of biological systems. Obtained approval and credit-granting ability from the department of physics and the provost of the college. Responsible for setting direction of class, choosing all readings and assignments, leading weekly discussion sessions.

Dare to Soar. Swarthmore, PA. 10/2007 – 6/2008.

Acted as a mentor for a Saturday enrichment program for low-income elementary school students. Provided companionship, acted as a role model, and helped with small research projects. Have participated in workshops on effective tutoring.

Oxford Conservation Volunteers. Oxford, UK. 1/2007 – 6/2007.

Weekly conservation work including brush clearing, fence building and footpath maintenance. Selected to participate in three-day trip to Wales co-organized by the National Trust.

OTHER WORK EXPERIENCE

(Self employed) 10/2003 – present.

Developer of several well-reviewed and popular Macintosh programs. Cavendish, a 3D gravitation simulator; Structure, a protein structure visualization screensaver, and SophoKeys, a polytonic Greek keyboard layout. More than 50,000 downloads in total.

OTHER SKILLS AND BACKGROUND

Languages: Spanish, Latin, Attic Greek.

Computer skills: Java, Obj-C, C, C++. Mathematica, Matlab, LabView, R.

Organizations: associate member, Sigma Xi; member, Phi Beta Kappa; student member, American Physical Society.