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| ***Catharine Adams*** |

**Education**

PhD Candidate Plant and Microbial Biology, UC Berkeley. *Aug 2014 - present*

Thesis: *Invasion ecology of the death cap mushroom,* Amanita phalloides.

M.A. Organismic and Evolutionary Biology, Harvard. *Sep* *2012 - May 2014*

Thesis: *Mechanisms of capsaicin tolerance in fungal pathogens of wild chili peppers.*

B. S. Biology (Ecology and Evolution), U of Washington. *2004 - 2009*

**Research Funding**

*National Natural Science Foundation of China (41471395) 2015 - 2018*

“Interaction of metal-based nanoparticles and heavy metals on their toxicity, uptake, and transport in arbuscular mycorrhizae.” Fayuan Wang, Min Yang, Jingxia Lu, **Catharine Adams**, Xinxin Jing, Shuai Li, Huixue Guo ($150,000 USD).

*National Science Foundation Research Experience for Undergraduates 2009*

Supplement to larger grant, “What is the fate of a silent forest? The importance of avian seed dispersal and herbivore control for tropical forest community structure (DEB 0816465).” Joshua Tewskbury, Janneke Hille Ris Lambers, Ross Miller, Haldre Rogers, **Catharine Adams***,* Kaitlin Mattos (REU = $24,000 USD).

**Fellowships & Recognition**

* *Best Poster, MSA-Botany meeting 2015*
* *SYNBERC funding for Unconscious Bias Project ($2355) 2015*
* *Chancellor’s Fellowship for Graduate Study (2 year stipend) 2014 – 2019*
* *NSF Graduate Research Fellowship (3 year stipend) 2012 – 2017*
* *MSA Mentor Student Travel Award ($500) 2015*
* *Humboldt Bay Mycological Society George Verback Memorial Scholarship ($600) 2015*
* *Student Ambassador for* BBC Earth *2015*
* *Honorable Mention, PMB Departmental Retreat Poster Session 2014*
* *Attended SciComCon2013, a national conference for science journalism 2013*
* *Best Interpretative Image, Microbial Systems Initiative Microscopy Workshop 2013*
* *Frye-Hotson-Rigg Award for field research costs ($1000-2000) 2007, 2008 and 2009*
* *Sargent Award for research supplies ($500) 2006*
* *Dean’s List 2004, 2006, 2009*
* *VFW Post 3348 Scholarship (4 years in-state paid tuition) 2004*

**Publications**

Peer reviewed:

* Xueqin Liu, Fayuan Wang, Zhaoyong Shi, Ruijian Tong, **Catharine A. Adams**, Xiaojun Shi. “Arbuscular mycorrhizae alleviate negative effects of zinc oxide nanoparticle and zinc accumulation in maize plants - A soil microcosm experiment.” *Chemosphere* 147 (2016): 88-97.

Science Journalism:

* **Adams, Catharine.**“The Top 10 Perks of Breaking Your Leg.” [Buzzfeed](https://www.buzzfeed.com/scienceismetal/the-top-10-perks-of-breaking-your-leg-2sge2), January 2017.
* **Adams, Catharine**. “Fungus Among Us.” [PMB Website](http://plantandmicrobiology.berkeley.edu/news/fungus-among-us), July 2016.
* **Adams, Catharine**. “The giant plants that eat meat.” [*BBC Earth*](http://www.bbc.com/earth/story/20150420-the-giant-plants-that-eat-meat), April, 2015.
* **Adams, Catharine**. “Postdoc Spotlight: Tanya Cheeke.” [*Inoculum*](http://msafungi.org/wp-content/uploads/Inoculum/66(2).pdf), March, 2015.
* **Adams, Catharine**. “Sharks Reveal New Super Memory.” [*BBC Earth*](http://www.bbc.com/earth/story/20150224-sharks-can-remember-for-a-year), Feb 24, 2015.
* **Adams, Catharine**. “Six bizarre things about fungi.” [*BBC Earth*](http://www.bbc.com/earth/story/20150202-six-bizarre-things-about-fungi), Feb 2, 2015.
* **Adams, Catharine**. “Student Award Spotlight: Katy Lazarus.” [*Inoculum*](http://msafungi.org/wp-content/uploads/Inoculum/66(1).pdf)*,* (Jan 2015).
* **Adams, Catharine**.“MSA Student Section Celebrity Interview, Part 2.” [*Inoculum*](http://msafungi.org/wp-content/uploads/Inoculum/65(2).pdf), Nov 2014.
* **Adams, Catharine**.“The MSA Student Section at IMC10.” [*Inoculum*](http://msafungi.org/wp-content/uploads/Inoculum/65(2).pdf), Sep. 2014.
* **Adams, Catharine**.“MSA Student Section Celebrity Interview, Part 1.” [*Inoculum*](http://msafungi.org/wp-content/uploads/Inoculum/65(2).pdf)*,* Sep 2014.
* **Adams, Catharine**.“The Most Dangerous Mushroom: Supplementary Materials.” [*Inoculum*](http://msafungi.org/wp-content/uploads/Inoculum/65(2).pdf)*,* April 2014.
* **Adams, Catharine**. “The Most Dangerous Mushroom.” [*Slate*](http://www.slate.com/articles/health_and_science/medical_examiner/2014/02/most_dangerous_mushroom_death_cap_is_spreading_but_poisoning_can_be_treated.html), Feb 2014.
* **Adams, Catharine**. **“***From Boston to Austin*: One Graduate Student’s Experience at MSA-APS 2013.” [*Inoculum*](http://msafungi.org/wp-content/uploads/Inoculum/64(5).pdf), Nov 2013.
* **Adams, Catharine**. “One Man on Mars: An interview with Dr. Andrew Knoll.” *Science in the News,* July 2013.
* **Adams, Catharine**. “The complicated evolutionary history of spicy chili peppers.” [*Science in the News*](http://sitn.hms.harvard.edu/flash/2012/issue131b/), 131b Nov 2012.
* **Adams, Catharine**. “Scientists propose new model for growth of Hawaiian volcanoes.” [*Northwest Science and Technology Magazine*](https://depts.washington.edu/nwst/issues/index.php?issueID=winter_2008&TOC=true), Fall 2008.
* **Adams, Catharine**.“Return of the wolves: nursing streams back to health in Yellowstone.” [*Northwest Science and Technology Magazine*](https://depts.washington.edu/nwst/issues/index.php?issueID=fall_2008&TOC=true), Winter 2008.

**Research and Work Experience**

*Graduate Student Instructor for professors Tom Bruns and John Taylor*

* Taught ‘Biology of Fungi’ (PMB C11 and C110L).
* For both morning and afternoon sections, co-led the 3-hour lab section twice a week. Taught students to operate microscopes, culture fungi from a variety of sources, and diagnose identifying morphology of many fungi and Fungi.
* During lab and office hours, reviewed and explained both lecture and lab material.
* Took photos during lab to create a review document of each fungus and its key features.
* Drove 15 passenger van for 2 of 4 field trips to collect and learn about fungi.
* For 40 students, wrote and graded weekly quizzes. Graded lab midterms and Fungal Culture Projects.

*Graduate Student Instructor for professor Steve Lindow Fall, 2015*

* Taught ‘Molecular Approaches to Environmental Problem Solving’ (ESPM 192).
* Held office hours to review lecture material, give feedback on term papers.
* Wrote comprehensive study materials, tips for studying and taking exams, guide for using Web of Science effectively.
* For 70 students, graded term papers, midterms, and final exams.

*Field Intern, International Environmental Research, Weyerhaeuser Uruguay 2010, 2011, 2013*

* Designed AM fungal root sampling protocol conducted Nov 2013.
* Conducted presence/absence vegetation surveys in grassland and plantation sites.

*Lab Manager, UW Tewksbury Research Laboratory 2008 - 2012*

* Posted job openings, hired, and managed four-person staff.
* *Lab*: Lead experiment to determine how capsaicin affects fungal growth (MS in prep), prepared HPLC and stable isotope samples, organized chili seed inventory, tended greenhouse plants, cultured fungi for assays, other duties as needed.
* *Field*: Four two –week trips to the deciduous dry forest of Bolivia.

*Kindle QA specialist, Amazon Apr 2012- Jul 2012*

* Copyedited CSS & HTML code for Kindle E-books.

*Introductory Biology Field Trip Leader, University of Washington* *Winter, Spring semesters 2012*

* Designed and lead day trips to teach students about diversity and succession from barren-seeming beaches, to forests, to man-made forts.

*Research Assistant, UW Rowell Research Laboratory 2010*

* Prepared over 300 otolith samples for aging and geochemical analysis.

*Project Intern and NSF REU Co-leader, Ecology of Bird Loss Project Summer, 2009*

* Contributed to experimental design, wrote field protocol, trained interns, helped perform statistical analysis.
* Wrote content and designed layout for project website.

*Research Assistant, UW Kerr Research Laboratory 2007 - 2008*

* Worked on independent research project that examined mechanics of social altruism in *Myxococcus xanthus.*

*IMAX & Laserdome Lead Usher, Pacific Science Center July 2003 to Mar 2009*

* Wrote departmental memos and staff schedules, conducted hiring interviews, gave introductory and closing speeches, tore tickets, directed crowds, decorated for special events, and conducted patron surveys.

**Invited Talks**

* **29th Fungal Genetics Conference** *Mar, 2017*

Feeding Fellow Biologists their Fungal Vegetables.

* **2017 12th Annual DOE JGI Genomics of Energy and Environment Meeting** *Mar, 2017*

Unconscious Bias and Fungi: Microorganisms in a Macro-Focused World.

* **iCLEM High School Program at JBEI** *July 15, 2016*

How to Use Social Media to Boost Your Research Career.

* **Momei Chen’s Morel Cultivation Workshop** *Aug 5, 2016*

The Ascomycota.

* **SYNBERC Expanding Potential Conference** *Jan 30, 2016*

Unconscious Bias and STEM.

* **Thriving in Science** *April 28, 2016*

Recognizing and Addressing Unconscious Bias.

* **Sonoma County Mycological Society** *Mar 17, 2016*

How did *Amanita phalloides* conquer the world?

* **Joint Bioenergy Institute** *Mar 9, 2016*

How to Use Social Media to Boost Your Research Career.

**Research Talks**

* **2017 Tilden Fungal Fair** *Jan 29, 2017*

On the trail of the Death Cap mushroom.

* **Humboldt Bay Mycological Society** *May 20, 2016*

How did *Amanita phalloides* conquer the world?

* **Berkeley CLEAR** *July 8, 2015*

How to Use Social Media to Boost Your Research Career.

* **UC Berkeley Micro Student Group Symposium** *April 20, 2015*

How to Use Social Media to Boost Your Research Career.

* **27th Fungal Genetics Conference**  *March 19, 2015*

Educating beyond undergrads and graduate students: mycology meets social media. (With Lynne Boddy)

* **Harvard University and General Public**  *May 30th, 2014*

Mechanisms of capsaicin tolerance in fungal seed pathogens of wild chili peppers.

* **Harvard University Student Seminar.**  *May 6th, 2014*

Mechanisms of capsaicin tolerance in fungal seed pathogens of wild chili peppers.

* **Harvard University Microbial Evolution Seminar**  *Dec 11th, 2013*

Spicy chili peppers, fungal seed pathogens, and a co-evolutionary arms race: Linking ecological patterns to molecular mechanisms.

* **University of Guam POETS Seminar** (with Kaitlin Mattos)*Sep 25, 2009*
* Interacting invasives in an inter-island intrigue: An analysis of seed predation by invasive rodents on the Mariana Islands.

**Poster Presentations**

* **International Conference on Mycorrhizas** *Aug 2015*

**Catharine Adams**, Tanya Cheeke, Danny Haelewaters, Samantha Lee, Mia Maltz, Klara Scharnagl, Christopher Smyth, Jessie Uehling. “The Mycological Society of America Student Section.”

* **Mycological Society of America** *July 2015*

**Catharine Adams**, Tanya Cheeke, Danny Haelewaters, Samantha Lee, Mia Maltz, Klara Scharnagl, Christopher Smyth, Jessie Uehling. “The Mycological Society of America Student Section.”

* **Mycological Society of America** *July 2015*

**Adams, Catharine*,*** Kolea Zimmerman, Kristi Fenstermacher, David Geiser, Anne Pringle. “Mechanisms of capsaicin tolerance in fungal seed pathogens of wild chili peppers.”

* **UC Berkeley Expanding Potential Workshop** *Nov 2014*

**Adams, Catharine*.*** “Join the Unconscious Bias Initiative!”

* **UC Berkeley PMB Retreat** *Sep 2014*

**Adams, Catharine*,*** Kolea Zimmerman, Kristi Fenstermacher, David Geiser, Anne Pringle. “Mechanisms of capsaicin tolerance in fungal seed pathogens of wild chili peppers.”

* **International Mycological Congress** *Aug 2014*

**Adams, Catharine*,*** Kolea Zimmerman, Kristi Fenstermacher, David Geiser, Anne Pringle. “Mechanisms of capsaicin tolerance in fungal seed pathogens of wild chili peppers.”

* **International Mycological Congress** *Aug 2014*

Jessie Uehling, Samantha Lee, **Catharine Adams**, Mia R Maltz, Danny Haelewaters. “The Mycological Society of America Student Section.”

* **Mycological Society of America** *June 2014*

Jessie Uehling, Samantha Lee, **Catharine Adams**, Mia R Maltz, Danny Haelewaters. “The Mycological Society of America Student Section.”

* **Ecological Society of America** *Aug 2012*

Noelle J Machnicki, **Catharine Adams**, Joshua Tewksbury. “Generalist vs specialist pathogens: Consequences of insect vectoring of fungal pathogens in wild chili peppers.”

**Professional Service**

* **Guest lecture for UC Berkeley course Integrative Biology 198-005.** *Feb 24th, 2017*
* **Panel Speaker for Microaggressions Workshop.** *Sep 2016 and Jan 2017*

Helped develop and deliver content for biannual workshop for all first time student instructors at UC Berkeley.

* **Helped plan Town Meeting on Microaggressions.** *Jan 2017*
* **Unconscious Bias Project Founder.** *Jan 2015 - present*

Developing a website, [www.UnconsciousBiasProject.org](http://www.UnconsciousBiasProject.org), to reduce negative effects of unconscious bias in STEM. Giving talks and workshops around the Bay Area.

Established new Registered Student Organization, The Unconscious Bias Project at Berkeley, and formed collaboration with the Berkeley Violence Prevention Coalition.

* **‘Thriving in Science’ Group Facilitator** *Sep, 2014 – July 2015*

Co-led peer support group for science graduate students.

* **Student representative on MSA Committee for Plant Pathogens** *2014 - 2015*

Developed plan to promote committee, influence future research on plant pathogens.

* **Communications Officer & Executive Board Member, MSA Student Section**

Provided general mycology and SS news to members, wrote articles for *Inoculum,* planned events. *Nov 2013 – May 2015*

* **Exhibitor, USA Science and Engineering Festival** *April 2014*

Helped run exhibit “The Invisible Chefs,” about microbiology in food.

* **HGWISE Executive Board Member** *June 2013 - May 2014*
* **Women of Science Competition**  *2012, 2013*

Talked with high school girls about my research, gave career advice, etc.

* **University of Washington**  *2006, 2007*

Peer TA for Biology 497: Experimental Evolutionary Ecology.

**Press and Media**

* [Bacteriofiles](http://www.microbeworld.org/podcasts/bacteriofiles/archives/2083-bacteriofiles-243-fungal-friends-facilitate-phytoextraction-feat-cat-adams).  *March 14, 2016*
* [KQED Deep Look](This%20Mushroom%20Starts%20Killing%20You%20Before%20You%20Even%20Realize%20It).  *February 26, 2016*
* [Acro Collective](http://acrocollective.net/2015/10/24/organization-spotlight-unconscious-bias-project/).  *October 24, 2015*
* [ComSciCon](http://comscicon.com/news/early-success-journalism-career-%E2%80%98jump-started%E2%80%99-comscicon).  *September 24, 2015*
* [Harvard GSAS Bulletin](https://www.gsas.harvard.edu/images/stories/pdfs/bulletin_apr14.pdf). *April 2014*

**Professional References**

* Dr. Tom Bruns, Professor, UC Berkeley: [pogon@berkeley.edu](mailto:pogon@berkeley.edu)
* Dr. Anne Pringle, Professor, UW Madison: [toannepringle@gmail.com](mailto:pringle@oeb.harvard.edu)
* Dr. Joshua Tewksbury, Research Coordinator, World Wildlife Fund Luc Hoffman Institute: [tewksjj@gmail.com](mailto:tewksjj@gmail.com)
* Dr. David Haak, Assistant Professor, Virginia Tech: [dhaak@vt.edu](mailto:dhaak@vt.edu)
* Dr. Laura Six, Plant Ecologist, Weyerhaeuser Uruguay: [laura.six@weyerhaeuser.com](mailto:laura.six@weyerhaeuser.com)