

CURRENT POSITION

Graduate student

Stanford University Dept. of Biology

Advising faculty: Kabir G. Peay

Sept. 2013-present

Stanford, California

PRIOR EDUCATION

University of California Berkeley, 2009 with Distinction in General Scholarship (cum laude equivalent)

Berkeley, California

- B.A. Integrative Biology
- B.A. Practice of Art (with High Honors)
- GPA: 3.8

RELEVANT UPPER DIVISION UNDERGRADUATE COURSEWORK

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| <ul style="list-style-type: none">• Plant Physiological Ecology (lecture and lab)• Physiology and Biochemistry of Plants (lecture and lab)• Introduction to California Plant Life (lecture and lab)• California Mushrooms (lecture and lab) | <ul style="list-style-type: none">• Ecosystems of California (lecture and field section)• Medical Ethnobotany (lecture and lab)• Host-Pathogen Interactions• Stable Isotope Methods and Mass Spectrometry |
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RESEARCH AND RELEVANT WORK EXPERIENCE

Senior Nursery Technician and Staff Research Associate (Office of Instructional Support)

Berkeley, California

UC Berkeley, Dept. of Integrative Biology

Full-time paid, January 2012 - present

- Coordination of daily operational needs of faculty, staff, and students using two research greenhouse facilities.
- Consultation on experimental design of greenhouse experiments, design and setup of custom irrigation systems.
- Oversight of all aspects of greenhouse monitoring and systems maintenance and implementation of Integrated Pest Management protocols. Oversight of ordering/purchasing of materials and equipment for facility.
- Programming of environmental control systems, familiarity with Argus Controls climate control software and hardware.
- Collection of specific plant material for 4 + upper division plant courses (e.g. Plant Systematics, Plant Morphology); coordination with UC Botanical Garden staff to assess suitability and availability of UCBG accessions.

Research Assistant – Wayne Sousa

Republic of Panamá

UC Berkeley, Dept. of Integrative Biology

Full-time paid, July 2012

- Worked closely with Dr. Wayne Sousa for three weeks at field sites around Smithsonian Tropical Research Institute's Galeta Marine Laboratory, in Colón, Panamá assisting with field data collection.
- Conducted research on the ecology of coastal mangrove forests, measuring propagule dispersal and seedling recruitment, mapping and measuring lightning gaps, and investigating the role of disturbance and herbivory in the distribution and regeneration of several mangrove tree species.

Research Assistant – David Reznick Lab

Republic of Trinidad and Tobago

UC Riverside, Dept. of Biology

Full-time paid, July 2011 – October 2011

- Field research in evolutionary ecology, using *Poecelia reticulata* (guppy) as a study organism in tropical montane streams.
- Long-term monitoring of experimentally introduced guppy populations in four remote stream sites, documenting evolutionary processes and eco-evolutionary feedback loops.
- Monthly mark-recapture research to establish and archive population dynamics: population genetics, life history evolution, and community structure.
- Anesthetization and elastomer injection marking of study fish, standardized photography of specimens, maintenance of aquaria.

Lab Manager – Stefan Schnitzer Lab

Republic of Panamá

University of Wisconsin Milwaukee, Dept. of Biological Sciences

Full-time paid, March 2010 - March 2011

& Smithsonian Tropical Research Institute (Research internship concurrent with UWM appointment)

- Assisted with research on tropical tree and liana community ecology, physiology, and forest dynamics.
- Forest plot and seedling censuses, laboratory measurements of plant morphology, construction of sap flow sensors and data logger interface.
- Oversaw the construction of two large plant-rearing shade houses, and subsequently managed seed collection and propagation of over 2,000 native trees and lianas.
- Oversight of a variety of other operations, team coordination, and purchasing for ecology research lab.
- Extensive year-round field work in challenging conditions, including operation of outboard motor boats to reach field sites.

Research Assistant – Todd Dawson Lab

Berkeley, California

UC Berkeley, Dept. of Integrative Biology

20-40 hours/week paid, June 2009 – March 2010

- Assisted with research on temperate and tropical plant ecological physiology, with specific emphasis in stable carbon, nitrogen and oxygen isotope ratio analyses.
- Prepared and processed biological samples for stable isotope and nutrient analyses. Familiarity with physiological techniques including plant water status and photosynthetic measurements, as well as cryogenic vacuum distillation and photosynthate extraction methods. Maintained greenhouse facilities and plants for research use.

Volunteer – University of California Botanical Garden

**Berkeley, California
5-10 hours/week volunteer, Spring 2006**

- Volunteer horticultural assistant at world-renowned botanic garden with over 19,000 accessions comprising one of the largest and most comprehensive collections in the United States.

ACADEMIC ART STUDY

**Departmental Honors for Independent Study in Sculpture, Advising professor: Richard Shaw
UC Berkeley, Dept. of Practice of Art**

**Berkeley, California
Spring 2008- Fall 2009**

- Year long independent study under advising professor advancing techniques in sculptural work using mixed media.
- Exhibitions at Worth Ryder Gallery (2007 and 2008), Portfolio available at rmsegnitz.tumblr.com

OTHER WORK EXPERIENCE

Intern - Research & Development and Machining Shop

**Campbell, California
Full-time paid, March 2011 – May 2011**

Accel Biotech

- Short-term internship at a small engineering firm specializing in development of devices for biology and medicine.
- Research for developing projects, in-house machining and prototyping, coordination of production logistics for clinical trial.
- Machining experience includes drill press, tapping, precision lathing, band saw, arbor press, basic CNC (CAD milling machine) set-up, metal plating prep.

Construction and custom carpentry for private contractor

**San Jose, California
Part-time/full-time, June – August 2006, October -December 2011, August-September 2013**

- Home remodeling, framing, sheetrock, int/ext paint, flooring, etc. Proficient use of variety of power tools (hand drill, circ/skill/table/chop saw, planer, var. sanders, grinder, Dremel, air nailers, among others).

HONORS AND DISTINCTIONS

- Phi Beta Kappa Society (UC Berkeley)
- Golden Key Honor Society (UC Berkeley)

OTHER SKILLS AND INTERESTS

- Proficiency in Spanish language and basic familiarity with conversational Italian.
- Experience operating outboard motor boats (currently licensed by the Panama Canal Authority) and 4WD manual field vehicles in challenging conditions.
- Proficient in use of wide variety of tools and construction techniques, as well as soldering/electrical skills.
- Familiarity with Microsoft Office Suite, Adobe Creative Suite (Photoshop, Illustrator, Acrobat).
- I also enjoy sculpting, painting, and electronics and like to work on original lighting fixtures, as well as custom furniture and electric musical instruments.
- I am a musician and have recorded professionally in the past. Music available at www.hetchhetchy.bandcamp.com

REFERENCES

Stefan A. Schnitzer, Associate Professor, Dept. Biological Science, University of Wisconsin Milwaukee

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- (414) 229- 3146

Todd E. Dawson Professor, Dept. of Integrative Biology, UC Berkeley

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- (510) 642-6090

Paul V.A. Fine Assistant Professor, Dept. of Integrative Biology, UC Berkeley

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Wayne P. Sousa, Professor and Dept. Chair, Dept. of Integrative Biology, UC Berkeley

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