

BRIAN SMITHERS

2617 CASTRO WAY ♦ SACRAMENTO, CA 95818 ♦ BSMITHERS@UCDAVIS.EDU ♦

Education

Loyola Marymount University , Los Angeles, CA	
BS Biology <i>magna cum laude</i>	1994 – 1998
Minor: Biochemistry	
BA Theological Studies <i>magna cum laude</i>	1994 – 1999
Minors: Music, Theater	
James Cook University , Cairns, Australia	
MS Tropical Biology, with Honors	2002 – 2003
University of California – Davis	2012 – present
PhD Ecology (in progress)	

Career

Position:	PhD Candidate/Teaching Asst/Research Asst/Lecturer	
	2012 - 2015	
Employer:	University of California, Davis	
Description:	As a TA for BIS 2B, 2C, ESP 100, and ECL200B, I was responsible for delivering the lab/discussion curriculum for Ecology/Biodiversity topics including lecturing, leading discussions, facilitating labs, and assessing student work. As a Research Assistant, I have conducted research on forest recovery from fire in the Sierra Nevada Mountains. My own research centers on treeline dynamics in the Basin and Range mountains.	
Position:	Biological Technician	2012
Employer:	University of Wyoming, Rocky Mountain Bird Observatory	
Description:	I worked throughout Wyoming, conducting point-count vegetation and avian surveys. Using the RMBO point-count protocol, I was responsible for locating and accessing often very remote sites, securing landowner access permission, liaising with federal and state agencies, and collecting/compiling large amounts of data.	
Position:	Peace Corps Volunteer, Fiji	2009 – 2011
Employer:	US Peace Corps	
Description:	As a Peace Corps Volunteer I worked in development and capacity building with rural Fijian villages. I worked to manage fisheries including creation and management of marine protected areas. I also worked with local farmers to address issues of soil erosion, chemical spraying, and crop rotation. Working with a village and government entities, I also worked to designate a large area of primary tropical forest as a Forest Reserve, the first such forest designated in the Lomaiviti province in Fiji.	
Position:	Science Teacher/Advocate	2004 – 2009
Employer:	Open Meadow Alternative School	
Description:	As a middle school science teacher I was responsible for preparing and delivering curriculum in general science in order to meet the Oregon State Standards. In addition, the position included an advocacy portion in which I was responsible for maintaining communication with students' families and linking families with needed social service resources.	
Position:	Wildlife Biologist	2003 - 2004
Employer:	Oregon State University Oregon Natural Heritage Information Center	
Description:	This project was a conservation effort to increase the breeding success of the endangered Western snowy plover. It involved coordinating conservation efforts for the snowy plover between Oregon State University, The Nature Conservancy, Oregon Natural Heritage Information Center, and the National Forest Service. I was also responsible for updating of the Oregon Natural Heritage Information Center's book <i>Rare, Threatened, and Endangered Plants and Animals of Oregon</i> .	
Position:	MS Student Research Assistant	2002 – 2003
Employer:	James Cook University	

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Description: Wedge-tailed shearwaters were studied on Heron Island, Great Barrier Reef, in an effort to determine life-history parameters of young provisioning in relation to other tube-nosed seabirds. This study entailed 4 weeks of field work on remote Heron Island and was my project for the Masters of Applied Science at James Cook University.

Position: **Wildlife Biologist** 2001
Employer: North Carolina State University
Description: Red knots were captured using cannon nets at Hunting Island, SC. They were banded and fitted with radio transmitters. I tracked the knots using radio telemetry throughout the southeastern US and performed habitat studies at Sapelo Island, GA in conjunction with Brad Winn at the Georgia Department of Natural Resources.

Position: **Research Assistant** 1996 – 1999
Employer: Loyola Marymount University
Description: Green-tailed towhees were recorded at various locations across the western U.S and northwestern Mexico. Songs were broken into individual notes and those notes were catalogued into an “alphabet.” Note frequencies were then compared between sites showing different populations based on song analysis.

Position: **Research Assistant** 1997 – 1999
Employer: Loyola Marymount University
Description: Using SCUBA, basic census data was taken of benthic invertebrates multiple times per month over a 2.5-year period in the marine Redondo Canyon. Using community similarity, a profile was generated showing the community zonation of the canyon. In addition, seasonal fluctuations in biodiversity were also noted.

Position: **Teaching Assistant** 1996 – 1999
Employer: Loyola Marymount University 2002
Description: For six semesters and three summer sessions as an undergraduate at Loyola Marymount University, I worked as a TA, teaching the lab sections of multiple courses. Those classes included General Chemistry I and II, Principles of Ecology, Vertebrate Biology, Intertidal Ecology, Marine Ecology of Baja California, and Biology of African Wildlife. As a graduate student, I also worked as a TA for General Ecology at James Cook University.

Publications

- Smithers, BV, North, MP. 2016. Elevation effects on relative establishment of Great Basin bristlecone and limber pine. (in prep).
- Smithers, BV. 2016. Drought effects on establishment of Great Basin treeline tree seedlings. (in prep).
- Smithers, BV, North, MP. 2016. Rapid demographic shifts at treeline in Great Basin bristlecone and limber pine forests. (in prep).
- Smithers, BV. 2010. *Organic Gardening in Fiji*. Peace Corps, Fiji.
- Congdon, BC, Krockenberger, AK, Smithers BV. 2005. Dual foraging and coordinated provisioning in a tropical Procellariiform, the wedge-tailed shearwater. *Marine Ecology Progress Series* 310: 293-301.
- Peck, DR. BV Smithers, AK Krockenberger, and BC Congdon. 2004. Sea surface temperature constrains wedge-tailed shearwater foraging success within breeding seasons. *Marine Ecology Progress Series* 281: 259-266.
- Smithers, BV, DR Peck, AK Krockenberger, and BC Congdon. 2003. Elevated sea-surface temperature, reduced provisioning and reproductive failure of wedge-tailed shearwaters (*Puffinus pacificus*) in the southern Great Barrier Reef, Australia. *Marine and Freshwater Research* 54: 973-977.

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Presentations

- Tree species range shifts above treeline in the Great Basin and our disappearing alpine habitat. 2016. Nevada Native Plant Society. Reno, NV and California Native Plant Society. Bishop, CA. *Invited Speaker*.
- Rapid demographic shifts at treeline in Great Basin bristlecone pine and limber pine forests. 2016. MtnClim. Leavenworth, WA.
- Demographic shifts in Mt. Charleston pine establishment above treeline. 2016 Mount Charleston Science Symposium. Las Vegas, NV. *Invited Speaker*.
- Climate change effects on treeline community dynamics in Basin and Range mountains. 2015. CNPS Conservation Conference. San Jose, CA.
- Climate change effects on treeline dynamics in Basin and Range mountains. 2014. AGU Fall Meeting. San Francisco, CA.
- Mechanisms of species range shift at treeline in bristlecone pine forests. 2014. Mountain Observatories. Reno, NV.
- Mechanisms of treeline species range shift in bristlecone pine forests. 2014. ESA. Sacramento, CA.
- Organic gardening in Fiji. 2009, 2010, 2011. US Peace Corps, Fiji Pre-Service Training. Nausori, Fiji.
- Alternative fuel production and use. 2009. US Peace Corps, Fiji Early-Service Training. Nausori, Fiji.
- Waste not, want not: making vegetable biofuel in the classroom. 2007. ING Annual Conference. Phoenix, AZ.
- Waste not, want not: making vegetable biofuel in the classroom. 2006, 2007. NSTA National Conference. Dallas, TX. Anaheim, CA
- El Niño-Southern Oscillation effects on young provisioning and chick growth in a tropical western Pacific seabird species, the Wedge-tailed shearwater. 2002. In 'BZoNQ'. Cairns, QLD.
- Geographic variation in songs of the Green-tailed towhee. 1999. West Coast Conference of Undergraduate Research, UC Irvine, Irvine, CA.
- Geographic variation in songs of the Green-tailed towhee. 1999. Loyola Marymount University Sigma Xi Research Conference, Los Angeles, CA.
- Biodiversity of the Marine Redondo Canyon. 1999. Loyola Marymount University Sigma Xi Research Conference, Los Angeles, CA.
- Geographic variation in songs of the Green-tailed towhee. 1998. Southern California Conference of Undergraduate Research, Pasadena, CA.

Awards

2016 Davis Botanical Society Grant	\$1,800	2002 Rotary Ambassadorial Scholarship	\$25,000
2016 Plant Sciences GSR	\$96,686	1999 LMU Presidential Citation	
2016 UC Dissertation Year Fellowship	\$43,792	1998 LMU Seydoux Field Biology Award	
2015 CNPS Conference Best Student Talk	\$200	1998 LMU Raymunde McKay Service Award	
2015 NV Native Plant Society Grant	\$1,000	1998 Alpha Sigma Nu Induction	
2015-16 Mary Dedecker Botanical Grant	\$1,940	1998 Sigma Xi Induction	
2014-16 Henry A Jastro Research Fellowship	\$6,600	1997 Ebell of Los Angeles Scholarship	\$1,000
2013-16 CA Native Plants Society Grant	\$2,000	1997 LA Philanthropic Scholarship	\$1,000
2013-15 UC Davis Ecology Fellowship	\$44,000	1997 Pike Christopher Scholarship	\$500
2012-16 White Mountains Research Minigrant	\$4,000	1994 LMU Science Scholarship	\$29,000
2006 ING Unsung Heroes teaching Award	\$12,000	1994 Bret Harte High School Salutatorian	
2005 Toyota Tapestry Grant	\$20,000		

Recent Academic Service

2016 MtnClim Conference Volunteer	2013-2016 White Mountains GLORIA Workshop leader
2016 Natural Areas Conference Planning Committee	2012-2014 Davis Society for Conservation Biology
2015 CA Native Plant Society Conference Volunteer	2013 UC Davis Odyssey TA
2014-16 UC Davis GGE Admissions Committee	
2014-16 UC Davis Odyssey Lecturer	
2013-2016 GLORIA California volunteer botanist	