

Seema Nayan Sheth

Curriculum Vitae

September 2014

CONTACT INFORMATION

Department of Ecology, Evolution and Behavior
University of Minnesota
1987 Upper Buford Circle
St. Paul, MN 55108

Phone: (612) 625-5709

E-mail: snsheth@umn.edu

Website: <http://wp.natsci.colostate.edu/ssheth/>

CURRENT APPOINTMENT

2014 – present Postdoctoral Research Associate, Department of Ecology, Evolution and Behavior, University of Minnesota

EDUCATION

2008 – 2014 Ph.D., Graduate Degree Program in Ecology (Evolutionary Ecology)
Colorado State University, Fort Collins, CO
Advisor: Amy L. Angert
Dissertation title: *Determinants of geographic distribution in western North American monkeyflowers*

2006 M.S., Biology (Ecology, Evolution, and Systematics)
University of Missouri – St. Louis, St. Louis, MO
Advisor: Bette A. Loiselle
Thesis title: *Patterns of habitat use by primates in eastern Ecuador*

2002 B.A., Environmental Studies and Spanish (*cum laude*)
Washington University, St. Louis, MO

PUBLICATIONS

Sheth, SN and AL Angert (*in press*). The evolution of environmental tolerance and range size: a comparison of geographically restricted and widespread *Mimulus*. *Evolution*.

Sheth, SN, I Jiménez, and AL Angert (*in press*). Identifying the paths leading to variation in geographic range size in western North American monkeyflowers. *Journal of Biogeography*.

Sheth, SN, LG Lohmann, T Distler, and I Jiménez. 2012. Understanding bias in geographic range size estimates. *Global Ecology and Biogeography* 21: 732-742.

Angert, AL, **SN Sheth**, and JR Paul. 2011. Incorporating population-level variation in thermal performance into predictions of geographic range shifts. *Integrative and Comparative Biology* 51: 733-750.

Paul, JR, **SN Sheth**, and AL Angert. 2011. Quantifying the impact of gene flow and phenotype-environment mismatch: a demonstration with the scarlet monkeyflower, *Mimulus cardinalis*. *The American Naturalist* 178: S62-S79.

- Sheth, SN**, BA Loiselle, and JG Blake. 2009. Phylogenetic constraints on fine-scale patterns of habitat use by eight primate species in eastern Ecuador. *Journal of Tropical Ecology* 25: 571-582.
- Sheth, SN**, LG Lohmann, T Consiglio, and I Jiménez. 2008. Effects of detectability on estimates of geographic range size in Bignoniaceae. *Conservation Biology* 22: 200-211.
- Amend, JP, DR Meyer-Dombard, **SN Sheth**, N Zolotova, and AC Amend. 2003. *Palaeococcus helgesonii* sp. nov., a facultatively anaerobic, hyperthermophilic archaeon from a geothermal well on Vulcano Island, Italy. *Archives of Microbiology* 179: 394-401.

GRANTS, AWARDS, AND FELLOWSHIPS

- | | |
|-------------|---|
| 2014 | Finalist, University of California President's Postdoctoral Fellowship |
| 2012 – 2014 | National Science Foundation Doctoral Dissertation Improvement Grant (\$14,984) |
| 2013 | August Stavros Family Fund, Department of Biology, Colorado State University (\$2,000) |
| 2013 | Graduate Student Travel Award, Department of Biology, Colorado State University (\$500) |
| 2012 | Funds for Local and Regional Outreach Promoting the Understanding of Evolutionary Biology, Society for the Study of Evolution, with R. Chong, J. Lovell, and J. McKay (\$800) |
| 2012 | Global Sustainability Leadership Fellow, Colorado State University |
| 2011 | August Stavros Family Fund, Department of Biology, Colorado State University (\$3,300) |
| 2010 | Rosemary Grant Award, Society for the Study of Evolution (\$2,500) |
| 2010 | Graduate Student Research Award, Botanical Society of America (\$500) |
| 2010 | Graduate Student Travel Stipend, Department of Biology, Colorado State University (\$500) |
| 2009 | Women in Natural Sciences Travel Grant, Colorado State University (\$300) |
| 2009 | Harold David Harrington Graduate Fellowship, Department of Biology, Colorado State University (\$1025) |
| 2009 | Steinkamp Fund, Colorado Native Plant Society (\$1,000) |
| 2008 – 2009 | Colorado State Graduate Fellowship, Graduate Degree Program in Ecology, Colorado State University (\$1,000) |
| 2008 – 2009 | National Science Foundation GK-12 Fellowship, Colorado State University (\$4,000) |
| 2005 – 2006 | National Science Foundation GK-12 Fellowship, University of Missouri – St. Louis (\$30,000) |
| 2005 | Summer Internship Fund, International Center for Tropical Ecology, University of Missouri – St. Louis (\$500) |
| 2004 | Primate Action Fund, Margot Marsh Biodiversity Foundation/Conservation International (\$3,000) |
| 2004 | Henry B. Cowhey Scholarship in Tropical Conservation, International Center for Tropical Ecology, University of Missouri – St. Louis (\$1,500) |
| 2004 | Mallinckrodt Graduate Scholarship in Tropical Ecology, International Center for Tropical Ecology, University of Missouri – St. Louis (\$1,500) |

SCIENTIFIC PRESENTATIONS

- Sheth, SN** and AL Angert. 2013. Does a jack-of-all-temperatures have a large geographic range? Evolution, Snowbird, UT.
- Sheth, SN**, I Jiménez, and AL Angert. 2012. Effects of niche properties and colonization ability on geographic range size in monkeyflowers. Guild of Rocky Mountain Ecologists and Evolutionary Biologists, University of Colorado's Mountain Research Station, CO.
- Sheth, SN**, I Jiménez, and AL Angert. 2012. Effects of niche properties on variation in geographic range size among species of western North American monkeyflowers. Ecological Society of America, Portland, OR.
- Sheth, SN**, LG Lohmann, T Distler, and I Jiménez. 2011. The Wallacean shortfall: bias in estimates of geographic range size. Botany, St. Louis, MO (presented by I Jiménez).
- Angert, AL, **SN Sheth**, and JR Paul. 2011. Incorporating population variation in thermal niche properties into geographic range shift predictions. Society for Integrative and Comparative Biology Symposium (A synthetic approach to the response of organisms to climate change: The role of thermal adaptation), Salt Lake City, UT (presented by JR Paul).
- Paul, JR, **SN Sheth**, AL Angert. 2010. Gene flow and phenotypic divergence among populations of the scarlet monkeyflower, *Mimulus cardinalis* (Phrymaceae), on a central to marginal latitudinal gradient. Guild of Rocky Mountain Ecologists and Evolutionary Biologists, Colorado State University Pingree Park Mountain Campus, CO (presented by JR Paul).
- Sheth, SN** and AL Angert. 2010. Ecological niche attributes and geographic range size in western North American monkeyflowers (poster). Evolution, Portland, OR.
- Angert, AL, JR Paul, **SN Sheth**. 2010. Gene flow and phenotypic divergence across the scarlet monkeyflower range. Vice presidential symposium: Ecological and evolutionary limits to geographic ranges, Evolution, Portland, OR (presented by AL Angert).
- Distler, T, C Ulloa, **SN Sheth**, J Hidalgo, and I Jiménez. 2009. Validating prediction models for narrowly distributed species with small sample size: how much is enough? Department of Biology, Washington University, St. Louis, MO (presented by T Distler).
- Sheth, SN**, LG Lohmann, T Consiglio, and I Jiménez. 2007. Disentangling phylogenetic patterns of extinction risk in Bignoniaceae. Department of Biology, Washington University, St. Louis, MO.
- Sheth, SN**, LG Lohmann, T Consiglio, and I Jiménez. 2007. Riesgo de extinción en Bignoniaceae (Bignoniaceae): una perspectiva filogenética. Symposium: Conservation and threat assessments of plants, Jornadas Argentinas de Botánica, Corrientes, Argentina.
- Sheth, SN**, LG Lohmann, T Consiglio, and I Jiménez. 2007. Extinction risk in Bignoniaceae (Bignoniaceae): a phylogenetic perspective. Colloquium: Integration of spatial and ecological data in evolutionary studies, Botany and Plant Biology Joint Congress, Chicago, IL.
- Sheth, SN**, LG Lohmann, T Consiglio, and I Jiménez. 2007. Effects of detectability on estimates of geographic range size and extinction risk: evaluating patterns of threat in Bignoniaceae (Bignoniaceae) with herbarium data. Department of Biology, St. Louis University, St. Louis, MO.

RESEARCH EXPERIENCE

2009 – 2014	Research Assistant, Angert Lab, Department of Biology, Colorado State University
2008 – present	Research Associate, Center for Conservation and Sustainable Development, Missouri Botanical Garden, St. Louis, MO
2006 – 2008	Research Scientist, Conservation, Ecology, and Evolution Center for Conservation and Sustainable Development, Missouri Botanical Garden, St. Louis, MO
1999 – 2002	Research Assistant, Microbial Geochemistry, Department of Earth and Planetary Sciences, Washington University, St. Louis, MO

TEACHING EXPERIENCE

2008 – 2014	Teaching assistant, Principles of Plant Biology lab (Colorado State University)
2012, 2013	Guest lecturer, Plant Ecology (Colorado State University)
2011, 2012	Teaching assistant, Plant Ecology lab (Colorado State University)
2009	Guest lecturer, Biology of Organisms (Colorado State University)
2008	Guest lecturer, Neotropical Plant Families (University of Michigan), Conservation Biology (University of Missouri – St. Louis)
2005 – 2006	NSF GK-12 fellow, Biology (9 th grade) and Birds and Mammals (11 th and 12 th grades), McCluer High School, St. Louis, MO
2005	Guest lecturer, Introductory Biology: Organisms and the Environment lab, (University of Missouri – St. Louis)

SERVICE

2010 – present	Manuscript reviewer: <i>American Journal of Botany</i> , <i>Ecography</i> , <i>BMC Evolutionary Biology</i>
2009 – 2014	Train, mentor, and supervise undergraduate research assistants and recent college graduates in lab, field, and greenhouse (5 males, 9 females—2 students in ethnically underrepresented groups), Colorado State University, Fort Collins, CO and field sites throughout the western United States
2012 – 2013	Graduate student representative, Faculty Search Committee, Colorado State University
2012	Biological Summer Undergraduate Research Experience program committee member; organized and led summer mentoring program for undergraduate researchers
2011	Volunteer mentor; participated in Graduate Degree Program in Ecology orientation for new students, Colorado State University, Fort Collins, CO
2009	Collaborated with National Park Service to recruit student Environmental Research and Education interns from Diné College, a public university chartered by the Navajo Nation, to assist with fieldwork in Canyon de Chelly National Monument, AZ
2008 – 2009	National Science Foundation joint GK-12 and Math and Science Partnership fellow; organized and led inquiry-based classroom activities in biology at Cache La Poudre Junior High School, La Porte, Colorado

2009	Volunteer, Putnam Elementary Science Carnival, Fort Collins, CO
2008 – 2009	National Science Foundation joint GK-12 and Math and Science Partnership fellow; organized and led inquiry-based classroom activities in biology at Cache La Poudre Junior High School, La Porte, Colorado
2009	Volunteer, Putnam Elementary Science Carnival, Fort Collins, CO
2002 – 2003	AmeriCorps Partnership for Youth member, Woodward Elementary School, St. Louis, MO
2001	Volunteer, Unidad Técnica (environmental NGO), Managua, Nicaragua

COURSES, WORKSHOPS, AND INTERNSHIPS

2013	Quantitative Genetics and Mixed Models in Quantitative Genetics, Summer Institute in Statistical Genetics, University of Washington, Seattle, WA
2013	Intro to Python for ArcGIS Workshop, Colorado State University, Fort Collins, CO
2012	Science Communication Workshop, Colorado State University, Fort Collins, CO
2010	Living on the edge: integrating science into the management of range-margin populations, University of Wyoming, Laramie, WY
2010	Applied Phylogenetics Workshop, Bodega Bay Marine Laboratory, CA
2007	Working with ArcGIS Spatial Analyst (short course), Environmental Systems Research Institute, St. Charles, MO
2006	Distance Sampling Workshop, University of Missouri – St. Louis, St. Louis, MO
2005	Assessing extinction risk in Bignonieae (summer internship), Center for Conservation and Sustainable Development, Missouri Botanical Garden, St. Louis, MO
2004	Geographic Information Systems (course), University of Missouri – St. Louis, St. Louis, MO
2004	Tropical Biology: An Ecological Approach (course), Organization for Tropical Studies, Costa Rica
2004	Historical Biogeography (short course), University of Missouri – St. Louis, St. Louis, MO

PROFESSIONAL SOCIETIES

Ecological Society of America
Society for the Study of Evolution