Robbie Hart

Assistant Curator, High Elevation Ethnobotany and GLORIA
William L. Brown Center, Missouri Botanical Garden
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Education

Ph.D. in Biology (Ecology, Evolution and Systematics), 2015 University of Missouri-St. Louis

Bachelor of Arts in Linguistics, 2004 Swarthmore College, PA

Associate of Arts with Honors, 2000 Peninsula College, WA

Awards and honors

University of Missouri - St. Louis Biology Department Raven Fellowship 2013

National Science Foundation Interdisciplinary Graduate Education & Research Traineeship 2008 – 2012

University of Missouri TransWorld Airlines Scholarship 2011

Graduate Teaching Excellence Award, University of Missouri - St Louis Biology Department 2010

Honorable mention, National Science Foundation Graduate Research Fellowship Program 2009 and 2010

Swarthmore College Class of 1925 Scholarship 2001 – 2004

Positions held

Assistant Curator (William L. Brown Center, Missouri Botanical Garden, St. Louis MO) 2016 –
I currently design and manage programs in high elevation plant ecology, climate change, and ethnobotany, with emphasis on international collaborative Global Observation Research Initiative in Alpine Environments (GLORIA) plots in Nepal, Bhutan and China monitoring dynamics of Himalayan vegetation, climate and ethnobotanical practice.

Research Specialist (William L. Brown Center, Missouri Botanical Garden, St. Louis MO) 2013 – 2015
Worked on programs in high elevation plant ecology, climate change, and ethnobotany, including analyzing data for Himalayan GLORIA plots.

Ph.D. Fellow (National Science Foundation 'Southwest China IGERT') 2008 – 2012
Funded by a competitive NSF fellowship as part of an interdisciplinary group of students and faculty working in Northwest Yunnan, China to understand ecological factors governing biodiversity, livelihood strategies and governance structures impacting biodiversity and economic development.

Administrative Services Manager (North Olympic Library System, Port Angeles WA) 2006 – 2008
Developed and implemented grants, acted as liaison to board and community, supervised administrative workers. Assisted in strategic planning, budgeting, labor negotiations, director hire, and rebranding.

Research Consultant (Living Tongues Institute for Endangered Languages) 2006 – 2008
Conducted research, editing, and analyses focusing on language documentation and conservation, including work with the National Geographic mission *Enduring Voices*.

Research Assistant (Swarthmore College, Swarthmore PA) 2004 – 2006
Conducted research, editing, and graphical work for Dr. K. David Harrison to produce *When Languages Die* (Oxford University Press, 2007).

Research experience

Mt. Yulong, Yunnan, China 2009 – 2013 (Ph.D. fieldwork)
Ecological & ethnoecological research on phenology of montane plants; ethnobotany with Naxi and Yi communities; collection of botanical, entomological, and DNA specimens; experimental work on pollination, temperature, and phenology.

Deqen, Weixi and Shangrila, Yunnan, China 2009, 2010, 2012, 2013
Ecological fieldwork with Global Observation Research Initiative in Alpine Environments (GLORIA), and ethnobotany to track the effects of climate change on alpine plant communities and Tibetan ethnobotanical traditions.

Ilam, Nepal 2003
Linguistic and sociolinguistic documentation of indigenous minority language Bantawa Rai.

Teaching and mentoring

Lae Technical University, Papua New Guinea:
Co-taught 'Traditional Ecological Knowledge and Landscape Stewardship' workshop (2015).

Missouri Botanical Garden:
Mentored undergraduate, graduate, and public volunteers in ethnobiology and climate change research projects (2015).

Guest lecture on climate change, ethnobotany and linguistics for National Science Foundation Research Experience for Undergraduates seminar series (2015).

Mentored National Science Foundation Research Experience for Undergraduates student in ethnobotany project (2014).

Washington University in St. Louis:
Guest lecture on climate change ethnobotany for Biology 523 Plants and People (2015).

Organizer for Biology 582 / Anthropology 560 Ethnobiology Journal Club (2014 & 2015).

Guest lecture on linguistics in ethnobiology for Anthropology 4211 People and Plants (2011).

University of Missouri - St. Louis:
Guest lectures on climate change ethnobotany for Biology 4299 Global Climate Change (2014 & 2015).

Co-organized and taught 'Statistical Analysis in R' workshop (2014).

Reviewed student research grants to the Whitney R. Harris World Ecology Center (2013 & 2014).

Mentored undergraduate research in climate change ecology (2010 & 2011).

Teaching Assistant (lab and lecture) for General Biology – awarded Graduate Teaching Excellence Award, based in part on student evaluations (2009 & 2010).

St. Louis University:
Guest lectures on linguistics in ethnobiology for Biology 328 Ethnobiology (2014 & 2012).

Lijiang Alpine Botanic Garden, Chinese Academy of Sciences:
Taught workshop on ecological statistics in R (2013).

Yunnan, China:
Mentored undergraduates in ecological and ethnobotanical field research (2010 – 2012).

Swarthmore College:
Teaching Assistant (lab and discussion) for Linguistics Field Methods (2004).

Teaching Assistant (discussion and field) for Marine Biology (2003).

Publications and presentations

Papers:

Jan Salick, **Robbie Hart** and Li Siyu. (in review). 'Naxi Cosmology of Mt. Yulong Sacred Sites with Caveats for Conservation'. *Human Ecology.*

Hassan Sher, Rainer Bussmann, **Robbie Hart**, and Hugo J. de Boer. (in review). 'Traditional use of medicinal plants among Kalasha, Ismaeli and Sunni groups in Khyber Pakhtunkhwa province, Pakistan'. *Journal of Ethnopharmacology.*

Robbie Hart and Jan Salick. (in press). 'Dynamic ecological knowledge systems amid changing place and climate: Mt. Yulong rhododendrons'. *Journal of Ethnobiology.*

Robbie Hart, Elizabeth M. Georgian, and Jan Salick (2016). 'Fast and Cheap in the Fall: Phylogenetic determinants of late flowering phenologies in Himalayan *Rhododendron* (Ericaceae)'. *American Journal of Botany* 103: doi: 10.3732/ajb.1500440

Ryan J. Thoni and **Robbie Hart**. 2015. 'Repatriating a lost name: notes on McClelland and Griffith's *Cobitis boutanensis* (Cypriniformes: Nemacheilidae)'. *Zootaxa* 3999: 291 – 294.

Robbie Hart, Jan Salick, Sailesh Ranjitkar, and Xu Jianchu. 2014. 'Herbarium specimens show contrasting phenological responses to Himalayan climate'. *PNAS* 111: 10615-10619.

Sailesh Ranjitkar, Roeland Kindt, Nani Maiya Sujakhu, **Robbie Hart**, Wen Guo, Xuefei Yang, Krishna Kumar Shrestha, Jianchu Xu, Eike Luedeling. 2014. 'Separation of the bioclimatic spaces of Himalayan tree rhododendron species predicted by ensemble suitability models'. *Global Ecology and Conservation* 1: 2-12.

Book chapters:

Robbie Hart, Wayne Law and Peter Wyse Jackson. 2014. 'Biocultural collections for conservation'. In *Curating Biocultural Collections,* Jan Salick, Katie Konchar and Mark Nesbitt (eds.), pp. 329-346. Kew Press.

Robbie Hart. 2007. 'Written Word, Oral World'. In *Book of Peoples of the World*, Wade Davis, K. David Harrison and Catherine Herbert Howell (eds.), pp. 252-255. National Geographic Society.

Books & theses:

Climate-driven Change in Himalayan Rhododendron Phenology. 2015. Doctoral Dissertation, Department of Biology, University of Missouri - St. Louis.

Up and Down the Mountain. 2004. BA Thesis, Department of Linguistics, Swarthmore College, PA.

Presentations at international and national conferences:

2015 'Change in the Himalayan climate II: alpine community composition'. Presentation at the 3rd Global Change and the World's Mountains conference, Perth, Scotland (Mountains III).

2015 'Sacred Mt. Yulong and Naxi perceptions of biodiversity conservation'. Presentation at Mountains III.

2015 'Climate change in the high Himalaya: monitoring changes in alpine vegetation and ethnobotany'. Presentation & poster at Creating a Global Network of Mountain Observatories workshop, Gothic, Colorado.

2014 'Climate impacts on *Rhododendron* phenology: insights from traditional ecological knowledge and natural history collections.' Presentation at Mountain Observatories: a global fair and workshop on social-ecological systems, Reno, Nevada (Mountain Observatories).

Publications and presentations (continued)

Presentations at international and national conferences (continued):

2014 'GLORIA resurveys of three Himalayan target areas'. Presentation at Mountain Observatories.

2014 'Climate change impacts on *Rhododendron* phenology: insights from historical collections, observational studies, and traditional ecological knowledge.' Presentation at the 14th Congress of the International Society for Ethnobiology, Bumthang, Bhutan (ISE 14).

2014 'Ethnobotany of climate change in the Eastern Himalaya: a 2,000 km transect, and two sites in Bhutan'. Presentation at ISE 14.

2012 'Rhododendron phenologies changing with climate'. Presentation at the 13th Congress of the International Society for Ethnobiology, Montpellier, France.

2010 'Past collections offer clues to the future of Himalayan rhododendrons'. Poster at the 2nd Global Change and the World's Mountains conference, Perth, Scotland.

Other invited presentations:

2015 – Invited lectures on climate change, ecology, and ethnobotany at Royal Botanic Garden Edinburgh; and at Tibetan Plateau Symposium, Washington University in St. Louis.

2014 – Invited lectures on climate change, ecology, and ethnobotany at 4th St. Louis Ecology, Evolution and Conservation Retreat, Southern Illinois University Edwardsville; at Biology Departmental Seminar, St. Louis University; and at Ecology, Evolution and Systematics Seminar Series, University of Missouri-St. Louis.

2013 – Invited lectures on Himalayan climate change, ecology, and ethnobotany at Lijiang Alpine Botanic Garden, Chinese Academy of Sciences.

2012 – Public talk on technology in ecological fieldwork at Strait Mac Users Group, Port Angeles, WA.

2011 – Public talk on climate change and phenology at Science Cafe, Academy of Science St. Louis.

2010 – Invited lectures on *Rhododendron* phenology and climate change at Ecology, Evolution and Systematics Seminar Series, University of Missouri-St. Louis; and at Lijiang Alpine Botanic Garden, Chinese Academy of Sciences.

Professional

Reviewer for *American Journal of Botany*; *Journal of Biogeography*; *Biological Conservation*; *Economic Botany*; *Environment and History*; *Ethnobotany Research and Applications*; *Global Change Biology*, *Human Ecology*, *Novon* and *Sustainability*.

Grant reviewer for National Geographic Society Committee for Research and Exploration; and University of Missouri Research Board.

Member of Association for Nepal and Himalayan Studies; Botanical Society of America; Ecological Society of America; Explorers Club; International Society of Ethnobiology; Society of Ethnobiology; and Society for Economic Botany.

Executive Committee, Whitney R. Harris World Ecology Center, 2013 – 2015.

Co-chair, 'Mountain Ethnobiology' session at Mountain Observatories: a global fair and workshop on social-ecological systems. Reno, Nevada, 2014.

Co-chair, 'Himalayan Climate Change and Ethnobotany' session at the 14th Congress of the International Society for Ethnobiology, Bumthang, Bhutan, 2014.