

Nancy Shackelford

nanshack.weebly.com (under construction!)

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Canada

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EDUCATION

Bachelor of Arts, Plan II Liberal Arts Honors August 2008

University of Texas, Austin

Senior Thesis: *Urban Blackland Prairie Restoration: A Case Study at Mueller Airport*

Bachelor of Science, Pure Mathematics August 2008

University of Texas, Austin

Masters of Science by Research, Quantitative Ecology October 2012

University of Western Australia, Perth

Thesis: *Management and impact of a native invasive species: Allocasuarina huegeliana in the sandplain heath of the Western Australian Wheatbelt*

Doctorate of Philosophy, Community Ecology ongoing

RESEARCH EXPERIENCE

Starzomski Laboratory September 2013 – present

- Microcosm experimental design and execution testing mechanisms underpinning ecological resilience
- Field experimental design and execution on the same

Ecosystem Restoration and Intervention Ecology Research Group February 2010 – February 2012

- Modeling invasive species populations
- Observational studies of invasive species
- Scientific writing
- Glasshouse experiment design and execution

Katy Prairie Conservancy December 2008 – April 2010

- Created extent map of endangered and rare species *Hymenoxys texana*
- Designed and carried out abundance estimate of *Hymenoxys texana*
- Designed annual survey protocol for *Hymenoxys texana*

SCHOLARSHIPS/FUNDING

- Mitacs Accelerate Industry Partner Internship 2016-2017 (\$25,000)
- Lorene Kennedy Graduate Field Research Award 2016 (\$2,000)
- Bob Peart Graduate Scholarship in Terrestrial Parks and Protected Areas 2015 (\$600)
- Pacific Institute for Climate Science: Fellowship at the University of Victoria 2014-2017 (\$21,000/yr)
- Tula Foundation Grant Award: Fellowship at the University of Victoria, 2013-2016 (\$18,000/yr)
- International Postgraduate Research Scholarship: Government of Australia, 2010-2012 (\$21,000/yr)
- University Top-up Scholarship: University of Western Australia, 2010-2012 (\$5,000/yr)
- International Travel Award: University of Western Australia, 2012 (\$1,500)
- Travel Award: Society for Ecological Restoration International, 2012 (\$500)
- Travel Award: Ecological Society of Australia, 2011 (\$500)

PEER-REVIEWED PUBLICATIONS

- Shackelford, N., Miller, B., Erickson, T.E. *Restoration of open-cut mining in semi-arid systems: A synthesis of long-term monitoring data and implications for management*. Land Degradation & Development. Submitted for review.
- Shackelford, N., B.M. Starzomski, N.C. Banning, L. Battaglia, A. Becker, P.J. Bellingham, B. Bestelmeyer, J.A. Catford, J.M. Dwyer, M. Dynesius, J. Gilmour, L.M. Hallett, R.J. Hobbs, J. Price, T. Sasaki, E.V.J. Tanner, R.J. Standish. *Connectivity predicts compositional change after discrete disturbances in a global meta-analysis*. Ecography, in press.
- Erickson, T.E., N. Shackelford, K.W. Dickson, S.R. Turner, D.J. Merritt. 2016. *Overcoming physiological dormancy in seeds of Triodia (Poaceae) to improve restoration in the arid zone*. Restoration Ecology. DOI: 10.1111/rec.12357.
- Shackelford, N., M. Renton, M.P. Perring, K. Brooks, R.J. Hobbs. 2015. *Biodiversity change in heathland and its relationships with shifting local fire regimes and native species expansion*. Journal of Plant Ecology, vol. 8, issue 1: 17-29.
- Merritt, D. J., A. J. Martyn, P. Ainsley, R. E. Young, L. U. Seed, M. Thorpe, F. R. Hay, L. E. Commander, N. Shackelford, C. A. Offord, K. W. Dixon, R. J. Probert. 2014. *A continental-scale study of seed lifespan in experimental storage examining seed, plant, and environmental traits associated with longevity*. Biodiversity and Conservation, vol. 23, issue 5: 1081-1104.
- Renton, M., N. Shackelford, R.J. Standish. 2014. *How will climate variability interact with long-term climate change to affect the persistence of plant species in fragmented landscapes?*. Environmental Conservation, vol. 41, issue 2: 110-121.
- Shackelford, N., M. Renton, M. Perring, R. Hobbs. 2013. *Modeling disturbance-based control of native invasive species and its implications for management*. Ecological Applications, vol. 23, issue 6: 1331-1344.
- Shackelford, N., R. Hobbs, J. Burgar, T. Erickson, J. Fontaine, E. Laliberté, C. Ramalho, M. Perring, R. Standish. 2013. *Primed for change: Developing ecological restoration for the 21st Century*. Restoration Ecology, vol. 21, issue 3: 297-304.
- Shackelford, N., R. Hobbs, N. Heller, L. Hallett, T. Seastedt. 2013. *Finding a middle-ground: The native/non-native debate*. Biological Conservation, vol. 158: 55-62.
- Renton, M., S. Childs, R. Standish, N. Shackelford. 2012. *Plant migration and persistence under climate change in fragmented landscapes: Does it depend on the key point of vulnerability within the lifecycle?*. Ecological Modelling, vol. 249: 50-58.
- Renton, M., N. Shackelford, R. Standish. 2012. *Habitat restoration will help some functional plant types persist under climate change in fragmented landscapes*. Global Change Biology, vol. 18: 2057-2070.
- Moffett, A., N. Shackelford, S. Sarkar. 2007. *Malaria in Africa: Vector Species' Niche Models and Relative Risk Maps*. PLoS ONE, vol. 2, issue 9: e824.

CONFERENCE PROCEEDINGS

- Shackelford, N., M. Renton, M. Perring, R. Hobbs. *Management implications of modeling invasion by *Allocasuarina huegelianain kwongan heathland**. In Chan, F., D. Marinova and R.S. Anderssen (eds) MODSIM2011 International Congress on Modelling and Simulation. Modelling and Simulation Society of Australia and New Zealand, December 2011.
- Renton, M., N. Shackelford, R. Standish. *Dynamic modelling to predict the likelihood of plant species persisting in fragmented landscapes in the face of climate change*. In Chan, F., D. Marinova and R.S. Anderssen (eds) MODSIM2011 International Congress on Modelling and Simulation. Modelling and Simulation Society of Australia and New Zealand, December 2011.

EMPLOYMENT EXPERIENCE

University of Western Australia, research consultant

April 2012 – September 2013

- Statistics and data analysis
- Manuscript preparation and writing
- Simulation modeling design, testing, and implementation
- Project coordination and oversight

Berg-Oliver & Associates, environmental consultant

October 2008 – January 2010

- GIS/CADD mapping and design
- Creation of field guide to local wetland botany
- Wetland delineations and pre-delineation
- Wetland mitigation bank planning
- Environmental document preparation and writing (NEPA)

TEACHING EXPERIENCE**University of Victoria**

- ES 582: Introduction to Data Analysis
 - Teaching Assistant January 2016 – April 2016
 - Guest lecture: Pitfalls and problems in data analysis March 2016
 - Guest lecture: Data visualization with ggplot2 March 2016
- ES 341: Restoration Ecology
 - Teaching Assistant September 2014 – December 2014
 - Guest lecture: Weeds in restoration October 2014, February 2015
- Biol 470: Advanced topics in biology
 - Guest lecture: Resilience ecology March 2014, 2015

University of Western Australia (Teaching Assistantships)

- Global Climate Change and Biodiversity September 2010 – December 2010
September 2011 – December 2011
- Introduction to R November 2010
May 2011
- Ecology February 2011 – May 2011
- Biometrics 2 February 2010 – June 2010

CONFERENCES AND WORKSHOPS

- #SciFund Challenge: Twitter for scientific communication September 2016
- Society of Ecological Restoration International: two papers August 2015
- Resilience Alliance: paper April 2014
- Software Carpentry Bootcamp April 2014
- Ecological Society of America: poster August 2012
- MODSIM 2011: two papers December 2011
- CEED Resilience Workshop October 2011
- Asia-Pacific Weeds Society: paper September 2011
- Society for Ecological Restoration International: paper August 2011
- Ecological Society of America: paper August 2011
- Australian Network for Plant Conservation 8th Annual Conference September 2010
- Western Australian Arid Zones July 2010

CERTIFICATES

- Advanced Nitrox and Decompression Diver** April 2013
- PADI Rescue Diver** September 2012
- Emergency First Responder** September 2012
- Interdisciplinary Certificate** August 2008
Environment and Ecology
- RMT, Lauterstein-Conway Massage Therapy Training** May 2008
- Yoga Alliance RYT, Dharma Yoga Teacher Training** June 2007

ORGANIZATIONAL LEADERSHIP EXPERIENCE

- Bluewater Cruising Association: Secretary** October 2014 – present
- Ecology@uvic Journal Club: Coordinator** January 2014 – present

UWA Underwater Club: Treasurer
UWA Underwater Club: Trip coordinator
Neighborhood Centers: Tax Preparer
Campus Environment Center: Director
Campus Environment Center: Assistant Director

June 2012 – March 2013
March 2011 – September 2012
January 2009 – April 2009
August 2006 – August 2007
August 2005 – August 2006