

Publications by Anna A. Sher (last updated 10/1/15)

Peer-Reviewed Publications (# citations >1,080; h-index= 12, i10-index=14)

* indicates a student or postdoc mentee, underline indicates corresponding/senior author when not first author

1. Munson, S. and A.A. Sher. 2015. long-term shifts in the phenology of rare and endemic rocky mountain plants. *American Journal of Botany*. doi:10.3732/ajb.1500156
2. Gonzalez E.*, A.A. Sher, E. Tabacchi, A. Masip, M. Poulin. 2015. Restoration of riparian vegetation: A global review of implementation and evaluation approaches in the international, peer-reviewed literature. *Journal of Environmental Management* 158:85-94.
3. Gonzalez, E.*, B. Berenger, A. Masip, A.A. Sher. 2015. Trade-Offs in Seed Dispersal Strategies Across Riparian Trees: The How Matters as Much as the When. *River Research and Applications*. DOI: 10.1002/rra.2899
4. Sproull, G.*, M.F. Quigley, A.A. Sher, E. Gonzalez. 2015. Long-term changes in composition, diversity, and distribution patterns in four herbaceous plant communities along an elevational gradient. *Journal of Vegetation Science*. DOI: 10.1111/jvs.12264
5. Sher, A.A. 2014. Invasive plant ecology: an international treatment of a growing field of study. *Ecology* 95: 581-582.
6. Gaddis, M*, and A. Sher. 2013. Russian Olive (*Elaeagnus angustifolia*) Removal in the Western United States: Multi-Site Findings and Considerations for Future Research. *Sustainability* 4, 3346-3361; doi:10.3390/su4123346
7. Sher, A. and M. Quigley. 2013. *Tamarix: A case study of ecological change in the American West*. Oxford University Press. pp 512.
8. Sher, A. Introduction to the Paradox Plant. 2013. P 1-20 in *Tamarix: A Case Study of Ecological Change in the American West*. A. Sher and M. F. Quigley, eds. Oxford University Press.
9. Sher, A. The Future of *Tamarix* in North America. 2013. P 441-458 in *Tamarix: A Case Study of Ecological Change in the American West*. A. Sher and M. F. Quigley, eds. Oxford University Press.
10. Shafroth, P.B., D.M. Merritt, M.K. Briggs, V.B. Beauchamp, K.D. Lair, M.L. Scott and A. Sher in *Tamarix: A Case Study of Ecological Change in the American West*. A. Sher and M. F. Quigley, eds. Oxford University Press.
11. Ohrtman, M.*, K. Lair, and A.A. Sher. 2012. Quantifying soil salinity in areas invaded by *Tamarix* spp. *Journal of Arid Environments* 85:114-121.
12. A. A. Sher, K. Wiegand, D. Ward. 2010. Do *Acacia* and *Tamarix* trees compete for water in the Negev desert? *Journal of Arid Environments* 74:338-343.
13. A.A. Sher, S. Gieck*, C. Brown, and S. Nissen. 2008. First-year responses of cheatgrass following tamarisk control and restoration-related disturbances. *Restoration Ecology* 16:129-135.
14. Bay, R.F.* and A.A. Sher. 2008. Success of Active Revegetation after *Tamarix* spp. Removal

- in Riparian Ecosystems of the Southwestern USA: A Quantitative Assessment of Past Restoration Projects. *Restoration Ecology* 16 113-128.
15. Shafroth, P. B., V. B. Beauchamp, M. K. Briggs, K. Lair, M. L. Scott, and **A. A. Sher**. 2008. Planning riparian restoration in the context of *Tamarix* control in western North America. *Restoration Ecology* 16 97-112.
 16. Thornby, D., D.F. Spencer, J. Hanan, and **A.A. Sher**. 2007. L-DONAX, a growth model of the invasive weed species, *Arundo donax* L. *Aquatic Botany* 87(4): 275-284.
 17. Spencer, D., **A.A. Sher**, D. Thornby, P.S. Liow, G. Ksander and W. Tan. 2007. Non-destructive assessment of *Arundo donax* (Poaceae) leaf quality. *Journal of Freshwater Ecology* 22: 277-285
 18. Westring, C.G., H. Ando, T. Kitahashi, R. K. Bhandar, H. Ueda, A. Urano, R. M. Dores, **A. A. Sher**, and P. B. Danielson. 2008. Seasonal Changes in CRH-I and Urotensin I Transcript Levels in Masu Salmon: Correlation with Cortisol Secretion During Spawning.
 19. Smith, S.*, A.A. Sher and T.A. Grant. 2007. Genetic Diversity in Restoration Materials and the Impacts of Seed Collection in Colorado's Restoration Plant Production Industry. *Restoration Ecology* 15:369-374.
 20. Sher, A. A. 2006. The Invasion of Our Rockies: Hype or Management Priority? Invited Review- "Challenge Essay" feature in the 2006 State of the Rockies Report Card. Pages 57-63. Colorado College Press, Colorado Springs, USA.
 21. Sher, A. A., D.E. Goldberg, A. Novoplansky. 2004. The effect of mean and variance in resource supply on survival of annuals from Mediterranean and desert environments. *Oecologia* 141 (2): 353-362.
 22. Chesson, P, R.L. Gebauer, S. Schwinning, N. Huntly, K. Wiegand, M.S.K. Ernest, A. Sher, A. Novoplansky, J.F. Weltzin. 2004. Resource pulses, species interactions, and diversity maintenance in arid and semi-arid environments. *Oecologia* 141 (2): 236-253.
 23. Rowland, D, A.A. Sher, and D.L. Marshall. 2004. Cottonwood population response to salinity. *Canadian Journal of Forest Research* 34: 1458-1466.
 24. Sher, A.A. and D. L. Marshall. 2003. Competition between native and exotic floodplain tree species across water regimes and soil textures. *American Journal of Botany* 90: 413-422.
 25. Sher, A.A., D.L. Marshall, and J. Taylor. 2002. Spatial partitioning within southwestern floodplains: patterns of establishment of native *Populus* and *Salix* in the presence of invasive, non-native *Tamarix*. *Ecological Applications* 12:760-772.
 26. Sher, A. A. ,D. L. Marshall., and S.A. Gilbert. 2000. Competition between native *Populus deltoides* and invasive *Tamarix ramosissima* and the implications of reestablishing flooding disturbance. *Conservation Biology* 14:1744-1754.
 27. Sher, A.A. and L.H. Hyatt. 1999. The Disturbance-Invasion Matrix: a new framework for predicting plant invasions. *Biological Invasions* 1(3-4):109-114.
 28. Cabin, Robert J., A.S. Evans, A.A. Sher, D.L. Marshall, D.L. Rowland, R. Mitchell. 1996.

Using bud pollinations to avoid self-incompatibility: implications from studies of three mustards. *Canadian Journal of Botany* 74: 285-289.

Other Publications

Books and manuals

29. Primack, R. and A.A. Sher. (in revision). *A Primer of Conservation Biology*. Sinauer Associates.
30. Sher, A.A., K. Lair, M. DePrenger-Levin, and K. Dohrenwend. 2010. *Best Management Practices for Revegetation in the Upper Colorado River Basin*. Denver Botanic Gardens, Denver, CO. pp 56.
31. *Tamarisk Best Management Practices in Colorado Watersheds*. 2010. S. Nissen, A. Sher, and A. Norton, eds. Colorado State University, Ft. Collins, CO. pp 77.
32. *A Manual for Developing Plant Conservation Programs: Selections from the Applied Plant Conservation Training Program, Week II*. 2008. A. A. Sher and J. Wingate, editors. Denver Botanic Gardens. pp 90.

Book chapters

33. Sher, A. *Tamarix* spp (tamarisk, salt cedar). 2012. In *A Handbook of Global Freshwater Invasive Species*. R. A. 84Frances, ed. Rutledge Press. Oxford, England.
34. Sher, A. and K. Lair. 2010. Restoration after tamarisk control. p 65-76 in *Tamarisk Best Management Practices in Colorado Watersheds*. 2010. S. Nissen, A.A. Sher, and A. Norton, eds. Colorado State University, Ft. Collins, CO.
35. Sher, A.. 2010. Why is tamarisk a problem? p 9-12. in *Tamarisk Best Management Practices in Colorado Watersheds*. 2010. S. Nissen, A.A. Sher, and A. Norton, eds. Colorado State University, Ft. Collins, CO.
36. Sher, A., A. Norton, and S. Nissen. 2010 Identification, Habitat and Biology. p 13-17. in *Tamarisk Best Management Practices in Colorado Watersheds*. 2010. S. Nissen, A.A. Sher, and A. Norton, eds. Colorado State University, Ft. Collins, CO.
37. Sher, A.A. 2008. Ponderosa pine. in “*Flourish: A Visionary Garden in the American West*”, P. Kaladis, Ed. Denver Botanic Gardens, Denver, CO.
38. Bay, R. F.* and A. A. Sher. 2006. What makes revegetation successful after Tamarisk (*Tamarix* spp.) removal in Southwestern riparian ecosystems? Pages 181-189 in W. R. Keammerer, editor. *Proceedings: High Altitude Revegetation Workshop No. 17*. Information Series No. 101. Colorado Water Resources Research Institute, Colorado State University, Fort Collins, Colorado, USA.
39. Grant, T.A. and A.A. Sher. 2006. The Gardens as Science. Invited chapter in “*Gardening with Altitude*” Denver Botanic Gardens, Denver, CO. Pages 136-147.
40. Sher, A.A., B. Kahn and C.R. Dickman. 2005. Human interactions with Biodiversity. in M. Shachak, S.T.A. Pickett, J.R. Gosz, and A. Perevolotski, *Biodiversity in Drylands: towards a unified framework*. Oxford University Press.

Published abstracts (since hire)

- Sher A.A., H. El Waer, E. Gonzalez. 2014. Plant community shifts over time in riparian restoration sites with and without *Tamarix* biological control. Ecological Society of America 99th Annual Conference. Sacramento, CA.
- Sher, A.A., A. Bowman, R. Whitney, F. Aguierr-Wong, E. Jackson, and R. Robinson. 2013. Climate change tracking using a century of phenology data in Colorado. Ecological Society of America Annual Conference. Minneapolis, MN.
- Sher, A.A. 2013. The big picture of riparian restoration in the Western US: what role is biocontrol? Society for Ecological Restoration International, Symposium. Madison, WI.
- Sher, A.A. 2012. Sher, A. Restoration in East versus West: Regional Differences and Why They Matter. 2012 Tamarisk Coalition Symposium
- El Waer, H, D. Stahl, & A. A. Sher. 2012. Monitoring Vegetation Response After Tamarisk Removal. 2012 Tamarisk Coalition Symposium
- Sher, A.A. 2010. Results of the Tamarisk Evapotranspiration Peer Panel. Tamarisk Coalition Symposium. Grand Junction, CO.
- Sher, A.A. 2010. Best Management Practices for Riparian Revegetation. Tamarisk Coalition Symposium. Grand Junction, CO.
- Ohrman, M.K.,* A.A. Sher, and K. Lair. 2009. Quantifying soil and groundwater chemistry in areas invaded by *Tamarix* spp. along the Middle Rio Grande, New Mexico. Ecological Society of America Annual Conference. Albuquerque, NM.
- Strudley, S.,* A.A. Sher, and A. Norton. 2009 Impact of tamarisk biocontrol (*Diorhabda elongata*) on the trophic dynamics of terrestrial arthropod populations in monotypic tamarisk stands. Ecological Society of America annual conference. Albuquerque, NM.
- Sher A. 2009. Tamarisk Ecology & Restoration: what past successes and failures tell us. Tamarisk and Russian Olive Research Conference 2009. Reno, NV.
- Gaddis, M.* and A. Sher. Russian olive (*Elaeagnus angustifolia*): Measuring restoration success in the western United States. Tamarisk and Russian Olive Research Conference 2009. Reno, NV.
- Strudley, S.*, A.A. Sher, and A. Norton. 2009 Impact of tamarisk biocontrol (*Diorhabda elongata*) on the trophic dynamics of terrestrial arthropod populations in monotypic tamarisk stands. Tamarisk and Russian Olive Research Conference 2009. Reno, NV.
- Sher, A.A. and M.E. DePrenger-Levin. 2008. So we've killed it, now what? Quantitative and qualitative synthesis of native plant restoration projects after invasive *Tamarix* removal. Ecological Society of America annual conference, Milwaukee, WI.
- Valella, P., D. Christophel, and A.A. Sher. 2008. The Papua New Guinea rainforest as a supermarket: A tree kangaroo's perspective. Ecological Society of America annual conference, Milwaukee, WI.
- Cederborg, M., K. Lair, and A.A. Sher. 2008. Salinity impacts of *Tamarix ramosissima*. Ecological Society of America annual conference, Milwaukee, WI.
- Briggs, M.K., P.B. Shafroth, V. Beauchamp, K. Lair, M.L. Scott, A.A. Sher. August 2007.

Planning riparian restoration in the context of *Tamarix* control in western North America. ESA Organized Oral Session: Restoration of western riparian ecosystems: Challenges and solutions. Ecological Society of America Annual Meeting. San Jose, CA.

Sher, A.A., R.F. Bay*, M. Gaddis*. August 2007. Quantitative synthesis of riparian restoration across three states. ESA Organized Oral Session: Restoration of western riparian ecosystems: Challenges and solutions. Ecological Society of America Annual Meeting. San Jose, CA.

Briggs, M.K., P.B. Shafroth, V. Beauchamp, K. Lair, M.L. Scott, A.A. Sher. August 2007. Planning riparian restoration in the context of *Tamarix* control in western North America. ESA Organized Oral Session: Restoration of western riparian ecosystems: Challenges and solutions. Ecological Society of America Annual Meeting. San Jose, CA.

Sher, A.A., August 2006. Invasive *Tamarix* as both symptom and driver of ecological change. Special Session Chair, Ecological Society of America Annual Meeting, Memphis, TN.

Bay, R.F.*, M. Meehan*, and A.A. Sher. August 2006. Modeling revegetation success after tamarisk (*Tamarix spp.*) and Russian olive (*Elaeagnus angustifolia*) removal in the southwestern US. Poster presentation. Ecological Society of America Annual Meeting, Memphis, TN.

Sher, A.A., D.F. Spencer, S. Sweet*, and J. DiTomaso. November 2003. Compensatory growth response across two nutrient regimes by invasive *Arundo donax*. Ecological Society of America /Weed Science Society of America joint meeting. Ft. Lauderdale, FL. Oral Presentation.

Sher, A.A., D.F. Spencer, S. Sweet*, and J. DiTomaso. August 2003. Riparian invader *Arundo donax* morphological and physiological response to stem cuttings. Ecological Society of America annual meeting. Savanna, GA

Articles published in DBG's award-winning magazine, "In the Gardens" (15):

Documenting our changing climate (Nov/Dec '10)

Our partnerships with Universities (Sept/Oct '10)

New Pops. of Rare Plants Discovered in 2009 (Nov/Dec '09)

A tale of beetles (Jan/Feb 2009)

Russian Olive- the next great pest? (May/June '08)

Fragile Life on Mountains (July/Aug '07)

Why is Biodiversity Important (Jan/Feb '07)

Biological Control: Special Use for "Bugs" (March/April '07)

Be a Weed Watcher (about invasives) (May/June '07)

What is a Carbon Footprint? (July/August '07)

Eating to Save the Planet (about impact of food on environment, Nov/Dec '06 issue)

Research at Chatfield: Protecting our Natural Heritage (Cover Story, July/Aug.'06)

Valuing Nature (Cover Story, May/June '05)

Fighting the Invasive Weed (Jan/Feb '05)

Meet the Gardens' New Research Director (Nov/Dec '03)

Other published works (science-related)

2015- Beetle vs. Bird: Expert Panel Weighs in on Biocontrol of Invasive Tamarisk Trees. Huffington Post, Science Blog, posted 1/27/15.
<http://www.huffingtonpost.com/anna-sher-simon/beetle-vs-bird-expert-panel-6535708.html>

2010- Invited Contributor to Preliminary Climate Change Adaptation Strategies for Colorado's Imperiled Plants NFWF Plant Conservation Strategy Implementation Phase II Rare Plant Conservation Initiative (RPCI)

2004- Invited Contributor to the Colorado 10-Year Strategic Plan for Tamarisk Control, commissioned by the Governor.