

## **Elise S. Gornish**

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### **EDUCATION**

Ph.D. (2013) Ecology, Florida State University, Tallahassee, FL

M.S. (2009) Ecology, Florida State University, Tallahassee, FL

B.S. (2006) Conservation Biology, Hunter College, New York, NY

B.S. (2003) Business, State University of New York at Buffalo, Buffalo, NY

B.A. (2003) English, State University of New York at Buffalo, Buffalo, NY

### **EMPLOYMENT**

05/2017 – Present Assistant Restoration Ecology Specialist in Cooperative Extension,  
University of Arizona

10/2017 – Present Director, GALS (Girls on outdoor Adventures for Leadership and Science) Arizona

01/2015 – 05/2017 Assistant Restoration Ecology Specialist in Cooperative Extension,  
University of California, Davis

05/2013 – 12/2014 Postdoctoral Scholar, University of California, Davis

### **HONORS AND AWARDS**

08/2019 – Present Early Career Fellow, Ecological Society of America

03/2019 Excellence in Campus-Community Outreach for STEM Diversity Award, University  
of Arizona, Women in Science and Engineering Program

10/2017 – 06/2018 Fellow, Tucson Public Voices, Women’s Foundation of Southern Arizona

### **SERVICE AND OUTREACH (last 3 years)**

*Local/State*

- Member, Cross Watershed Network (2019 – Present)
- Vice President, Society of Ecological Restoration Southwest Chapter (2018 – Present)
- Founding Member, Glyphosate Working Group - Society for Ecological Restoration, Southwest Chapter (2018 – Present)
- Committee Member, Arizona Conservation Partnership Charter (2018 – Present)
- STEM Chair, American Association of University Women Tucson Branch (2017 – Present)
- Member, Restoration Assessment & Monitoring Program for the Southwest (2017 – Present)
- Member, Buffelgrass Working Group - Arizona Desert Museum (2017 – Present)
- Committee Member, Southwest Vegetation Management Association (2017 – Present)
- Member, Sonoran Desert Cooperative Weed Management Area (2017 – Present)

- Committee Member, Reclamation and Restoration Committee - Society for Range Management (2017 – Present)
- Research committee member, Southwest Seed Partnership (2017 – Present)
- Leadership Team, 500WomenScientists Tucson Pod (2017 – Present)

#### *National/International*

- Co-chair, Ecological Restoration Section of the Ecological Society of America (2016 – Present)
- Member, Plant Conservation Alliance (2017 – Present)
- Reviewer for the Society for Ecological Restoration International Standards (2019)
- Reviewer for the U.S.-Israel Binational Science Foundation (2017)
- Editor, California Agriculture (2015-2017)
- Partner, Letters to a Pre-Scientist (2015-2017)
- Peer reviewer for *American Journal of Botany*; *Annals of Botany*; *AoB PLANTS*; *Biological Invasions; Ecology*; *Ecosphere*; *Environmental Management*; *Invasive Plant Science and Management*; *Journal of Applied Ecology*; *Journal of Arid Environments*; *Journal of Coastal Research*; *Journal of Ecology*; *Journal of Ecosystem & Ecography*; *Journal of Environmental Management*; *Journal of Range Management*; *Journal of Vegetation Science*; *Land Degradation and Development*; *New Phytologist*; *Oecologia*, *Plant Ecology*; *PLoS ONE*; *Restoration Ecology*; *Science of the Total Environment*

#### *Departmental Committees*

- Co-chair, Inclusive Excellence Committee, SNRE University of Arizona (2018 – Present)
- Member, Extension and Continuing Education Advisory Committee (2017 – Present)
- Member, IRB Technical Review Panel (2017 – Present)
- PhD advisor for: Iris Rodden, University of Arizona (2018 – Present); Hannah Farrell, University of Arizona (2017 – Present); Maowei Liang, Inner Mongolia University (2016 – Present); Julea Shaw, University of California, Davis (2015 – Present)
- MS advisor for: Amy Gill, University of Arizona (2018 – Present)
- Qualifying exam committee member for: Ariel Marc Leger, University of Arizona (2018 – Present); Olga Kildisheva, University of Western Australia (2018 – 2019); Ashlee Simpson, University of Arizona (2017 – 2018); Noah Teller, University of California, Riverside (2016 – Present)
- Undergraduate advisor for: Marci Caballero-Reynolds, University of Arizona (2018 – Present)

#### *Other Committees*

- Faculty Mentor, Ecological Restoration Club, University of Arizona (2018 – Present)
- Faculty Mentor, Women in STEM Student Council, University of Arizona (2018 – Present)
- Member, University of Arizona Center for Climate Adaptation Science and Solutions (2017 – Present)

## **PUBLICATIONS**

### *Referees Journal Articles*

(38) Liang M, Chen J, **Gornish ES**, Mariotte P and Liang C (in press) Foliar nutrient contend mediates

- effects on species dominance and plant community biomass. *Rangeland Ecology & Management*
- (37) **Gornish ES**, Shaw J, and Gillespie B (2019) Using strip seeding to test how restoration design affects randomness of community assembly. *Restoration Ecology* DOI: 10.1111/rec.12988
- (36) Dechen Silva A, Roche LM, and **Gornish ES** (2019) The use of strip-seeding for management of two late-season invasive plants. *Heliyon* 5: e01772
- (35) Hasbagan H, **Gornish ES**, Qingzhu G, Guozheng H, Yufan W, Yue L, and Luobu D. (2018) Temperature leads to changes of plant community composition in alpine meadow and steppe on the Qinghai-Tibetan Plateau. *Environmental Monitoring and Assessment* DOI: 10.1007/s10661-018-6964-0
- (34) **Gornish ES**, Eastburn D, and Roche LM. (2018) Livestock grazing and topographic site effects on grassland plant communities after long-term grazing cessation. *The Rangeland Journal* 40: 577-582
- (33) **Gornish ES** and Roche LM (2018) The value of Cooperative Extension for involving society in restoration and conservation. *Restoration Ecology* 26: 1051-1054
- (32) Liang M, Chen J, **Gornish ES**, Bai X, Li Z, and Liang C (2018) Grazing effects on grasslands escalated by abnormal precipitation in Inner Mongolia. *Ecology & Evolution* 8: 8187 - 8196
- (31) **Gornish ES**, Case E, Valle M, Bean TM, and Moore-O'Leary KA (2018) A systematic review of management efforts on goatgrass (*Aegilops* spp) dominance. *Plant Ecology* 219: 549-560
- (30) Eastburn DJ, Roche LM, Doran M, Gamble G, and **Gornish ES** (2018) Seeding for multiple ecosystem service goals. *Journal of Environmental Management* 211: 191-197
- (29) Matzek V, **Gornish ES**, and Hulvey KB (2017) Emerging approaches to successful ecological restoration: five imperatives to guide innovation. *Restoration Ecology* 25: S110 – S113
- (28) Hulvey KD, Ledger E, Porensky LM, Roche LM, Veblen KE, Fund A, Shaw J, and **Gornish ES** (2017) Restoration islands: A tool for efficiently restoration dryland ecosystems. *Restoration Ecology* 25: S124-A134
- (27) **Gornish ES** and Roche LM. (2017) Cooperative Extension holds the key to unlocking public engagement within science. *Frontiers in Ecology and the Environment* 15: 487-488
- (26) **Gornish ES**, Lennox MR, Lewis D, Tate KW, and Jackson RD (2017) Comparison of herbaceous plant response to active and passive riparian restoration in a Mediterranean climate. *PLoS ONE* 12:e0176338
- (25) Davy J, Turri T, Dykier K, and **Gornish ES**. (2017) Seeded forages in California annual rangeland. *California Agriculture* 15: 487-488
- (24) Ryan WH, **Gornish ES**, Christenson L, Halpren S, Henderson S, LeBuhn G, and Miller TE (2017) A toolbox for initiating long-term data collections with students and citizen scientists. *American Biology Teacher* 79: 28 – 34
- (23) **Gornish ES**, Fierer N, and Barberán A (2016) Associations between an invasive plant (*Taeniatherum caput-medusae*, medusahead) and soil microbial communities. *PLoS ONE* 11: e0163930
- (22) **Gornish ES**, James JJ (2016) The effects of habitat and demography on management outcomes for an invasive annual grass. *Plant Ecology* 217: 1247-1258
- (21) Ganjurjav H, Gao Q, **Gornish ES**, Schwartz M, Liand Y, Cao X, Zhang W, Zhang Y, Li W, Wan Y, Li Y, Danjiu L, Guo H, and Lin E (2016) Differential response of alpine steppe and alpine meadow to climate warming in the central Tibetan Plateau. *Agriculture and Forest Meteorology*

23: 233 – 240

- (20) **Gornish ES**, Brusati E, and Johnson D. (2016) Practitioner perspectives on using non native plants for revegetation in California. *California Agriculture* 70: 194 – 199
- (19) **Gornish ES**, and Ambrozio dos Santos P (2016) Invasive species cover, soil type and grazing interact to predict long-term grassland restoration success. *Restoration Ecology* 24: 222 – 229
- (18) **Gornish ES**, James JJ and Laca EA (2015) The value of oak woodland habitats as control for Medusahead (*Taeniatherum caput-medusae*). In: Proceedings of the 7<sup>th</sup> Oak Symposium: Managing Oak Woodlands in a Dynamic Work, November 3-6, 2014, Visalia, CA. USDA Forest Service General Technical Report PSW-GTR-251, 579 p.
- (17) **Gornish ES**, and Leuzinger S (2015) Across the horizon: Scale effects in global change research. *AoB PLANTS* 7:plv079
- (16) Harrison S, **Gornish ES**, and Copeland S. (2015) Climate-driven diversity loss in a grassland community. *Proceedings of the National Academy of Sciences, USA* 112: 8672 – 8677
- (15) **Gornish ES**, and Miller TE. (2015) Plant community responses to simultaneous change in temperature, nitrogen availability, and invasion. *PLoS ONE* 10: e0123715
- (14) James JJ, **Gornish ES**, DiTomaso JM, Davy J, Doran M, Becchetti T, Wilson R, Lile D, Laca E. (2015) Managing medusahead (*Taeniatherum caput-medusae*) on rangeland: A meta analysis of control efforts and assessment of stakeholder needs. *Rangeland Ecology & Management* 68: 215 – 223
- (13) Monge J, and **Gornish ES** (2015) Mechanisms of facilitation on a barrier island. *Journal of Coastal Research* 31: 17 – 24
- (12) **Gornish ES**, James JJ, Sheley RL, Rinella MJ, Svecar T, Englund SD, and Aanderud ZT (2015) Altered snowfall influences early life stage transitions and recruitment of a native and invasive grass in a cold desert. *Oecologia* 177: 595 – 606
- (11) **Gornish ES**. (2014) Interactive effects of global change and invasion across levels of organization in an old field plant community. *AoB PLANTS* 6: plu061
- (10) **Gornish ES**. (2014) Demographic effects of warming, elevated soil nitrogen, and native community reduction on the colonization of a perennial plant. *Population Ecology* 5: 645 – 656
- (9) Pastore A, Prather C, **Gornish ES**, Ryan C, Ellis R, and Miller TE (2014) Testing mechanisms of the intermediate disturbance hypothesis in saxicolous lichen communities. *Ecology* 95: 306 – 315
- (8) **Gornish ES**, and Prather C (2014) Do foliar traits predict how plants respond to warming? A meta analysis. *Journal of Vegetation Science* 25: 919 – 927
- (7) **Gornish ES** (2013) Effects of density and fire on the vital rates and population growth of a perennial Goldenaster. *AoB PLANTS* 5: PLT041
- (6) **Gornish ES**, and Tylianakis J (2013) Plant community response to global climate change at different scales: A review. *American Journal of Botany* 100: 1 – 13
- (5) **Gornish ES**, and Miller TE (2013) Using long-term census data to inform restoration methods of coastal dune vegetation. *Estuaries & Coasts* 36: 1014 – 1023
- (4) **Gornish ES**, Hamilton JA, Barberán A, Benito BM, Binzer A, DeMeester JE, Gruwez R, Moreira B, Taheri S, Tomiolo S, Vinagre C, Vuarin P, and Weaver J (2013) Interdisciplinary climate change collaborations are essential for early-career scientists. *EOS, Transactions American Geophysical Union* 94: 151

- (3) Ibanez I, **Gornish ES**, Buckley L, Debinski D, Hellmann J, Helmuth B, Latimer A, Miller Rushing A, and Uriarte M (2012) Moving forward in global-change ecology: capitalizing on natural variability. *Ecology and Evolution* 3: 170 – 181
- (2) **Gornish ES** and Miller TE (2010) Effects of storm frequency on dune vegetation. *Global Change Biology* 16: 2668 – 2675
- (1) Miller TE, **Gornish ES**, and Buckley H (2010) Climate and coastal dune vegetation: disturbance recovery and succession. *Plant Ecology* 206: 97 – 104

*Other Publications*

- (9) **Gornish ES** (2019) Seed ball strategies for gardening and restoration in arid landscapes. University of Arizona Publication AZ1797. pp2
- (8) **Gornish ES**, Simpson A, and Caballero-Reynolds M (2018) How to construct a bicycle powered seed pelletizer for use in gardening and restoration. University of Arizona Publication AZ1785-2018. pp 12
- (7) **Gornish ES**, Coffey P, Tiles K, and Roche LM (2018) Careers in Cooperative Extension. *Frontiers in Ecology and the Environment* 16: 539-540
- (6) Rao D, **Gornish ES**, Smith R, and Davy J (2017) Progress report: Tumbleweed on California's central coast. *Grasslands* 27: 11 – 13
- (5) **Gornish ES**, and Shaw J (2017) Restoration manual for annual grassland systems in California. ANR Publication 8575 pp. 88
- (4) Bean T, and **Gornish ES** (2016) Native soil bacteria as biocontrol. *Cal-IPC News* 24: 9 – 14
- (3) **Gornish ES**, and Hulvey KB (2016) New ecological restoration section at ESA! *Ecological Restoration* 34: 87 – 88
- (2) **Gornish ES** (2015) An extension perspective on California grassland restoration. *Grasslands* 25: 6 - 8
- (1) Bienick G, Miller TE, Gornish ES (2012) Flowering plants of St. George Island. Florida State University Publication.

**CONFERENCES/SCHOLARLY PRESENTATIONS (last 3 years)**

- (28) Snell L, Little JM, **Gornish ES**, Lile D, Hogan SD, Jin Y, and Roche L. Post-wildfire livestock grazing on public lands in northern California. University of California Fire Workshop. Davis, CA, poster presentation. 04/2019
- (27) **Gornish ES**. Relationships between grass and mesquite cover based on long-term data: Implications for restoration opportunities. Southwest Vegetation Management Association. Tucson, AZ, oral presentation. 11/2019
- (26) Farrell H and **Gornish ES**. Treating buffelgrass: A literature review of competition mechanisms and treatment efficacy. Southwest Vegetation Management Association annual meeting. Tucson, AZ, poster presentation. 11/2018
- (25) Simpson A, Caballero-Reynolds M, **Gornish ES**. Constructing and operating a bicycle powered seed pelletizing machine for use in gardening and ecological restoration projects. Southwest Vegetation Management Association annual meeting. Tucson, AZ, poster presentation. 11/2018
- (24) **Gornish ES**. How and why to make seed balls for arid land restoration: A demonstration. Bi

- national Restoration Workshop. Hereford, AZ, *invited* oral presentation. 11/2018
- (23) **Gornish ES**. Grassland restoration in the arid southwest: Emerging approaches. Bi-national Restoration Workshop. Hereford, AZ, *invited* oral presentation. 11/2018
- (22) Teller N, **Gornish ES**, Bean T, and Larios L. Targeting bulldozer lines for competitive seeding to suppress postfire invasion in Coastal Sage Scrub. Sequoia and Kings Canyon Science Symposium. Three Rivers, CA, oral presentation. 11/2018
- (21) Teller N, **Gornish ES**, Bean T, and Larios L. Targeting bulldozer lines for competitive seeding to suppress postfire invasion in Coastal Sage Scrub. California Invasive Plant Council Annual Symposium. Monterey, CA, oral presentation. 11/2018
- (20) Farrell H and **Gornish ES**. Treating buffelgrass: A literature review of competition mechanisms and treatment efficacy. Society for Ecological Restoration Southwest Chapter. Flagstaff, AZ, poster presentation. 10/2018
- (19) Simpson A, Caballero-Reynolds M, **Gornish ES**. Constructing and operating a bicycle powered seed pelletizing machine for use in gardening and ecological restoration projects. Society for Ecological Restoration Southwest Chapter. Flagstaff, AZ, poster presentation. 10/2018
- (18) McCormick ML, Munson SM, Bradford JB, Butterfield BJ, Copeland SM, Conn J and **Gornish ES**. Collaborative Restoration: Working together to achieve project outcomes in the desert Southwest. Society for Ecological Restoration Southwest Chapter. Flagstaff, AZ, poster presentation. 10/2018
- (17) **Gornish ES**, and McClaran M. Relationships between grass and mesquite cover based on long term data: Implications for restoration opportunities. Society for Ecological Restoration Southwest Chapter. Flagstaff, AZ, oral presentation. 10/2018
- (16) Shaw JA, **Gornish ES**, Eastburn DJ, Laca EA, Macon D, Tate KW, and Roche LM. Strip seeding, targeted grazing, and prescribed fire to manage and restore California grasslands. Ecological Society of America. New Orleans, LA, poster presentation. 08/2018
- (15) McCormick ML, Munson SM, Bradford JB, Butterfield BJ, Copeland SM, and **Gornish ES**. RAMPS: Restoration Assessment and Monitoring Program for the Southwest. Ecological Society of America. New Orleans, LA, poster presentation. 08/2018
- (14) Miller TE, and **Gornish ES**. The response of vegetation and dune morphology to extreme weather events. Ecological Society of America. New Orleans, LA, *invited* oral presentation. 08/2018
- (13) **Gornish ES**. Restoration practices for invasive grasses. Noxious, Invasive Plant Short Course. Farmington, NM, *invited* oral presentation. 07/2018
- (12) **Gornish ES**, and Bowker M. Causes, effects and manifestations of arid land degradation in managed and natural systems. Eco-engineering of life in arid landscapes: Discovering and constructing interactions along the plant-microbe-soil continuum. Tucson, AZ, *invited* oral presentation. 05/2018
- (11) Teller N, **Gornish ES**, Bean T, Larios L. Targeting bulldozer lines for postfire competitive seeding at Chino Hills State Park. 3<sup>rd</sup> California Chaparral Symposium. Arcadia CA, poster presentation. 05/2018
- (10) Simpson A, Caballero-Reynolds M, **Gornish ES**. Constructing and operating a bicycle powered seed pelletizing machine for use in gardening and ecological restoration projects. Madrean Conference. Tucson, AZ, poster presentation. 05/2018

- (9) **Gornish ES**, and MaClaren M. Relationships between grass and mesquite cover based on long term data: Implications for restoration opportunities. Madrean Conference. Tucson, AZ, *invited* oral presentation. 05/2018
- (8) **Gornish ES** and Brooks Catherine. Science communication to the public. Women in Engineering Seminar. University of Arizona. Tucson, AZ, invited oral presentation. 04/2018
- (7) Schohr T, Roche LM, Shaw J, Tate KW, and **Gornish ES**. Completing the knowledge cycle: Deriving IPM knowledge directly from practitioners on working landscapes. Society of Range Management annual meeting. Sparks, NV, oral presentation. 01/2018
- (6) Rao D, Davy J, Smith R, and **Gornish ES**. Tumbleweed control on California's central coast. California Weed Science Society Meeting. Santa Barbara, CA, oral presentation. 01/2018
- (5) Rao D, Davy J, Smith R, and **Gornish ES**. Tumbleweed control on California's central coast. Society of Range Management annual meeting. Sparks, NV, oral presentation. 01/2018
- (4) Little JM, Snell LK, **Gornish ES**, Lile DF, and Roche LM. Post-wildfire livestock grazing management on public rangelands in Northeast California. Society of Range Management annual meeting. Sparks, NV, poster presentation. 01/2018
- (3) Farrell H, **Gornish ES**, and Fehmi JS. Seeding vs. natural recruitment: comparing semi arid vegetation communities post reclamation. Society for Ecological Restoration Southwest Section annual meeting, oral presentation. 10/2017
- (2) **Gornish ES**, Bean T, Kyser G, and Davy J. barb goatgrass management: interactive effects of grazing, glyphosate rate, application timing and restoration seeding. California Invasive Plant Council Symposium. Palm Springs, CA, oral presentation. 10/2017
- (1) Schohr T, Roche LM, Shaw J, Tate KW, and **Gornish ES**. Completing the knowledge cycle: Deriving IPM knowledge directly from practitioners on working landscapes. California Invasive Plant Council Symposium. Palm Springs, CA, oral presentation. 10/2017

#### COMMUNITY PRESENTATIONS (last 3 years)

- (24) **Gornish ES**. Seedball production and use for gardens and rangeland restoration. Family Day at Cochise County Master Gardeners Discovery Gardens. Sierra Vista AZ, *invited* oral presentation. 04/2019
- (23) Muller P, Mendivil E, and **Gornish ES**. Seedball composition effects on Plains Bristlegrass (*Setaria vulpiseta*) germination. Tucson High School Science Fair. Tucson AZ, poster presentation. 02/2019
- (22) **Gornish ES**, Johnson M, and Caballero-Reynolds M. Using a bike to make seed pellets for ecological restoration. Tucson High School Science Night. Tucson AZ, oral presentation. 02/2019
- (21) Snell L, Little JM, **Gornish ES**, Lile D, Hogan SD, Jin Y, and Roche L. Post-wildfire livestock grazing on public lands in northern California. California Rangeland Conservation Coalition annual meeting. Susanville, CA, oral presentation. 01/2019
- (20) **Gornish ES**. Biotic response – Caring about the environment in a changing climate. Sky Islands School, Tucson, AZ, *invited* oral presentation. 01/2019
- (19) **Gornish ES**. Relationships between grass and mesquite cover based on long-term data: Implications for restoration opportunities. Malpai Borderlands Group Science Conference. Rodeo, NM, *invited* oral presentation. 01/2019

- (18) **Gornish ES.** Restoration practices for invasive grasses. Invasive Weed Workshop. Orderville, UT, *invited* oral presentation. 12/2018
- (17) **Gornish ES.** The role of phenology in ecological restoration. USA National Phenology Network journal club, University of Arizona. Tucson, AZ, *invited* oral presentation. 09/2018
- (16) **Gornish ES.** Restoration approaches for the arid southwest. Restoration Discussion Panel, Borderlands Restoration Field School. Patagonia, AZ, *invited* oral presentation. 07/2018.
- (15) **Gornish ES,** and McClaran M. Relationships between grass and mesquite cover based on long term data: Implications for restoration opportunities. Arizona Native Plant Society Tucson Chapter meeting. Tucson, AZ, *invited* oral presentation. 05/2018
- (14) **Gornish ES.** Plants and animals in arid lands: Impacts and management. Gila Community College. Payson, AZ, *invited* oral presentation. 04/2018
- (13) **Gornish ES.** Plants and animals in arid lands: Impacts and management. Bullion Plaza Museum. Miami, AZ, *invited* oral presentation. 04/2018
- (12) **Gornish ES.** Emerging approaches to rangeland restoration. University of Arizona. Tucson, AZ, *invited* oral presentation. 04/2018
- (11) Simpson A, Caballero-Reynolds M, **Gornish ES.** Constructing and operating a bicycle powered seed pelletizing machine for use in gardening and ecological restoration projects. Earthweek at the University of Arizona. Tucson, AZ, poster presentation. 04/2018
- (10) **Gornish ES,** and McClaran M. Grassland and mesquite on the Santa Rita Experimental Range: An historical perspective. Altar Valley Conservation Alliance Brush Management Workshop. Green Valley AZ, oral presentation. 01/2018
- (9) **Gornish ES.** On the ground and in the field: Applied research and outreach as a Cooperative Extension Specialist. Arizona Association of Environmental Professionals meeting, Tucson, AZ, *invited* oral presentation. 11/2017
- (8) LM Roche, Schohr TK, Shaw JA\*, Tate KW, and **Gornish ES.** Completing the knowledge cycle: Deriving IPM knowledge directly from practitioners on working landscapes. California Pest Management Advisory Committee meeting, Sacramento CA, oral presentation. 11/2017
- (7) Schohr T, Roche LM, Shaw J\*, Tate K, and **Gornish ES.** Land manager perspectives on rangeland weed management practices. California Cattleman's Association, Reno NV, poster presentation. 11/2017
- (6) **Gornish ES.** Non-academic jobs in range. University of Arizona Range Club. Tucson, AZ, *invited* oral presentation. 11/2017
- (5) **Gornish ES.** Frontiers of ecological restoration research and outreach in the arid southwest. University of Arizona, School of Natural Resources Seminar Series. Tucson, AZ, oral presentation. 11/2017
- (4) Garfin G, **Gornish ES,** and Falk D. Vegetation management after fire in Arizona. Arizona State Legislative Offices, oral presentation. 10/2017
- (3) Roche LM, Schohr TK, Shaw JA\*, Tate KW, and **Gornish ES.** Completing the knowledge cycle: Deriving IPM knowledge directly from practitioners on working landscapes. Monday Afternoon Weeders, University of California, Davis, CA, oral presentation. 09/2017
- (2) Bean T, Kyser G, Davy J, and **Gornish ES.** Barb Goatgrass seed production: Grazing, glyphosate rate and application timing. Monday Afternoon Weeders, University of California, Davis. Davis, CA, oral presentation. 08/2017



- (1) **Gornish ES**, Bean T, Kyser G, and Davy J. Interactive effects of grazing, glyphosate rate, and application timing on barb goatgrass seedhead production. Hopland Research and Education Center field day. Hopland, CA, oral presentation. 06/2017

### AWARDED GRANTS (last 3 years)

#### *Federal*

- (7) Baldwin E, Lien A, **Gornish ES**, Henry A, and McClaran M. Solving grand challenges in coupled natural human systems: Predicting effective governance strategies for managing invasive species. National Science Foundation, 10/19 – 09/24. \$1,580,012
- (6) **Gornish ES**, Roche L, Fehmi J, Barberán A, Ruyle G, and McClaran M. The utility of plant traits to identify range seeding candidates that can achieve multiple management goals. Western SARE, 05/2019 – 05/2022. \$342,481
- (5) **Gornish ES**, Blankinship J, and Fehmi J. From the ground up: Educating Cooperative Extension and the NRCS about agricultural technologies to enhance soil health. Western SARE, 06/2019 – 05/2021. \$75,000 (declined)
- (4) **Gornish ES**, Fehmi J, and Conn J. Restoration ecology internship for southwest National Parks. National Park Service, 09/2018 – 08/2020. \$15,000
- (3) Fehmi J and **Gornish ES**. Fertile islands in Arizona. USDI – National Park Service, 06/2018 – 12/2019. \$94,000
- (2) **Gornish ES** and Howery L. The identification and control of invasive plants in Arizona. Western IPM, 05/2018 – 05/2019. \$14,995
- (1) Larios L, **Gornish ES**, Bean T, and Teller N. Testing community functional composition of vegetation buffers to improve postfire invasion resistance of Coastal Sage Scrub. Western IPM, 05/2018 – 05/2019. \$29,822

#### *State*

- (3) Francois C, and **Gornish ES**. Native Grassland Restoration. Arizona Department of Forestry and Fire Management, 06/2019 – 05/2020. \$10,000
- (2) **Gornish ES**, Groscholz T, and Darin G. Investigations of restoration techniques that limit invasion of tidal wetlands. Delta Conservancy, 07/2017 – 06/2020. \$107,650
- (1) **Gornish ES**. Using restoration to manage invasive plants on annual grasslands. East Contra County Habitat Conservancy, 01/2017 – 06/2018. \$9,998

#### *Private Foundation*

- (6) **Gornish ES** and Barberán A. Ecological restoration for soil health research and development lab. University of Arizona CALS Innovation Venture Investment Program Proposal, 09/2019 – 09/2021. \$90,000
- (5) **Gornish ES**. A holistic approach to reducing time to graduate degree completion. The University of Arizona, 09/2018 – 09/2019. \$6359
- (4) Roche L, **Gornish ES**, Hogan S, Jin Y, Snell L, Eastburn D, Lile D. Closing the adaptive management loop for sustainable working rangelands. University of California, Division of Agriculture and Natural Resources, 08/18 – 07/21. \$197,979

- (3) **Gornish ES.** Testing the utility of green stripping to reduce Buffelgrass (*Cenchrus ciliare*) dominance and restore nature fire frequency to southern Arizona uplands. University of Arizona CALS Early Career Faculty Seed Grant Program, 02/2018 – 02/2019. \$10,000
- (2) Coopmann Rivers C, Roche LM, Orloff S, DiTomaso J, **Gornish ES**, Davy J. Prescribed grazing strategies management to enhance agricultural production and meet riparian habitat conservation objectives. Russell L Rustici Rangeland and Cattle Research Endowment, 01/2017 – 12/2018. \$33,100
- (1) Roche LM, Jin Y, Lile D, Snell L, Hogan S, and **Gornish ES.** Remote data collection for adaptive rangeland management on public lands. Russell L Rustici Rangeland and Cattle Research Endowment, 01/2017 – 12/2018. \$100,808