



## Elise S. Gornish

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### EDUCATION

|      |       |  |
|------|-------|--|
| 2013 | Ph.D. | Ecology, Florida State University, Tallahassee, FL             |
| 2009 | M.S.  | Ecology, Florida State University, Tallahassee, FL             |
| 2006 | B.S.  | Conservation Biology, Hunter College, New York, NY             |
| 2003 | B.S.  | Business, State University of New York at Buffalo, Buffalo, NY |
| 2003 | B.A.  | English, State University of New York at Buffalo, Buffalo, NY  |

### EMPLOYMENT

|                   |   |
|-------------------|---|
| 09/2023 – Present | Visiting Researcher, CREAM, Universitat Autònoma de Barcelona   |
| 04/2022 – Present | Affiliated Faculty, Arid Lands Resource Sciences Graduate Interdisciplinary Program The University of Arizona |
| 08/2021 – Present | Associate Specialist in Cooperative Extension, University of Arizona  |
| 05/2017 – 07/2021 | Assistant 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 Specialist in Cooperative Extension, University of California, Davis                                |
| 05/2013 – 12/2014 | Postdoctoral Scholar, University of California, Davis   |

### HONORS AND AWARDS

|                   |   |
|-------------------|---|
| 09/2022           | Multistate Effort Partnership Award, USDA-NIFA  |
| 06/2022           | Woman of Impact Fellow, University of Arizona   |
| 04/2022           | Cooperative Extension Faculty of the Year, University of Arizona  |
| 09/2021           | Outstanding Inclusive Environmental Education Program, Arizona Association for Environmental Education    |
| 05/2021           | Finalist, University of Arizona Early Career Scholar Award  |
| 02/2021           | Outstanding Young Range Professional, Society for Range Management  |
| 12/2020           | Finalist, AAAS Early Career Award for Public Engagement with Science                                      |
| 07/2020           | Early Career Open Science Award, <i>AoB Plants</i>  |
| 05/2020           | Public Service and Outreach Award, School of Natural Resources and the Environment, University of Arizona |
| 11/2019           | Shirley O'Brien Diversity & Inclusion Award, University of Arizona  |
| 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

**RECENT SERVICE AND OUTREACH**

*Local/State*

2023 – Present Member, Habitat Restoration Committee, Sustainable Tucson  
 2023 – Present Member, Scientific Review Committee, Appleton-Whittell Research Ranch  
 2023 – Present President, Arizona Section of the Society for Range Management  
 2022 – Present Member, Advisory Board, Desert Seed Research Center  
 2022 – Present Member, Advisory Board, Rainforest Rising  
 2022 – 2023 President Elect, Arizona Section of the Society for Range Management  
 2021 – 2022 Vice President, Arizona Section of the Society for Range Management  
 2020 – Present Member, Technical Advisory Committee, Gila Watershed Science  
 2020 – Present Member, Science Advisory Committee, Working Lands Conservation  
 2019 – Present Member, Arizona Cross Watershed Network  
 2019 – Present Member, Science Advisory Board, Altar Valley Conservation Alliance  
 2019 – Present Chair, Science Committee, Arizona Section of the Society for Range Management  
 2018 – Present President, Society of Ecological Restoration Southwest Chapter

*National/International*

2022 – Present Chair, Rangelands Invasive Weeds Committee, Society for Range Management  
 2022 – Present Associate Editor, *Restoration Ecology*  
 2022 – Present Member, Steering Committee, *Rangelands*  
 2022 Reviewer for Western SARE annual grants  
 2022 Reviewer for Western IPM annual grants  
 2021 Co-chair of Events Committee for Society for Ecological Restoration International 2021 meeting  
 2020 Reviewer for Western SARE annual grants  
 2019 – 2022 Associate Editor, *Elementa*  
 2016 – Present Founder and leadership member, Ecological Restoration Section of the Ecological Society of America

*University Committees*

2021 – 2023 Member, Faculty Search Committee, SNRE Director, University of Arizona  
 2020 Member, Cooperative Extension Publication Process Evaluation Committee  
 2020 Member, Faculty Search Committee, Director of Cooperative Extension  
 2018 – Present Faculty Mentor, Ecological Restoration Club, University of Arizona

*Departmental Committees*

2022 Member, Faculty Status Committee  
 2021 Head, Faculty Search Committee, Aridlands Vegetation

|                |   |
|----------------|---|
| 2020           | Member, Faculty Search Committee, Rangeland Ecology                   |
| 2018 – 2021    | Co-chair, Inclusive Excellence Committee, SNRE, University of Arizona |
| 2017 – Present | Member, Extension and Continuing Education Advisory Committee         |
| 2017 – 2023    | Member, IRB Technical Review Panel                                    |

*Postdoctoral advisor for*

|             |                   |
|-------------|-------------------|
| 2023 – 2024 | Magda Garbowski   |
| 2020 – 2022 | Trace Martyn      |
| 2020 – 2023 | Katherine Hovanes |
| 2018 – 2019 | Maowei Liang      |
| 2017 – 2018 | Max Li            |

*PhD advisor for*

|                |                   |
|----------------|-------------------|
| 2020 – Present | Lia Ossanna       |
| 2019 – Present | Marquel Ann Begay |
| 2019 – Present | Sierra Lauman     |
| 2018 – 2021    | Iris Rodden       |
| 2017 – 2020    | Hannah Farrell    |
| 2015 – 2020    | Julea Shaw        |

*MS advisor for*

|                |                    |
|----------------|--------------------|
| 2022 – Present | Philippa Johnstone |
| 2022 – Present | Michael Spaeth     |
| 2018 – 2020    | Amy Gill           |

*Undergraduate advisor for*

|             |                              |
|-------------|------------------------------|
| 2023        | Aneeya Lowe                  |
| 2023        | Bela Rein                    |
| 2022        | Darrell Begay Jr.            |
| 2021– 2022  | Suvi Birch                   |
| 2020 – 2022 | Skylar Zuniga                |
| 2020        | Christopher Melton           |
| 2019 – 2021 | Whitney Noel                 |
| 2018 – 2020 | Marci Caballero-Reynolds     |
| 2018 – 2019 | Albert Kline                 |
| 2016 – 2017 | Amanda Dechen                |
| 2016 – 2017 | Mitchell Petures             |
| 2015 – 2016 | Patricia Ambrozio Dos Santos |

*Qualifying exam committee member for*

Madaline Wallace (2023 – Present); Katerina Sacoman (2023 – Present); Diana Githu (2023 – Present); Gabriela Inigo (2022 – Present); Elena Graciela Dosamantes (2022 – Present); Julia Rudolph (2022 – 2023); Natasha Riccio (2022 – 2023); Emilio Aguilar Cubilla (2022 – 2023); Cie’na Schlaefli (2022 – 2023);

Ben Yang (2021 – 2023); Natalie Melkonoff (2021 – Present); Wyatt Philabaum (2021 – 2022); Lydia Jennings (2019 – 2020); Jared Williams (2019 – 2021); Ariel Marc Leger (2018 – 2020); Olga Kildisheva (2018 – 2019); Ashlee Simpson (2017 – 2018); Noah Teller (2016 – 2019); Breahna Gillespie (2016 – 2021); Evan Wolf (2015 – 2017); Chhaya Werner (2015 – 2017); Julia Michaels (2016 – 2017); Aubrienne Zamora (2015 – 2017)

## SOCIETY MEMBERSHIPS

2015 – Present            Society for Ecological Restoration  
2013 – Present            Society for Range Management  
2007 – Present            Ecological Society of America

## PUBLICATIONS

### *Refereed Journal Articles*

- (85) Ossanna LQR, Gugliermo J, Miller M, Davis R, **Gornish ES**. Dryland rock detention structures increase herbaceous vegetation cover and stabilize shrub cover over 10 years but do not directly affect soil fertility. *Science of the Total Environment* Accepted
- (84) Rudolph J, **Gornish ES**, Barberán A (2024) Plant-plant and plant-soil interactions under drought and the presence of invasive buffelgrass (*Cenchrus ciliaris*) Biological Invasions DOI: 10.1007/s10530-023-03245-7
- (83) Romanelli J, Piana M, Klaus V, Brancalion P, Murcia C, Cardou F, Wallace K, Adams C, Martin P, Burton P, Diefenderfer H, **Gornish ES**, Stanturf J, Beyene M, Santos JR, Rodrigues R, Cadotte M. (2023) Convergence and divergence in science and practice of urban and rural forest restoration. *Biological Reviews* DOI: 10.1111/brv/13022
- (82) Wan Z, Ganjurjav H, Gu R, Hu G, **Gornish ES**, Chun X, Zhou H, Gao Q (2023) Changes in plant species dominance maintain community biomass production under warming and precipitation addition in temperate steppe in Inner Mongolia, China. *Agricultural and Forest Meteorology* 341: 109671
- (81) Zuo X, **Gornish ES**, Koerner S, van der Plas F, Wang S, Liang M (2023) Dominant species determine grazing effects on the stability of herbaceous community production at multiple scales in drylands. *Journal of Applied Ecology* 60: 1917-1928
- (80) Lauman ST, Martyn TE, Begay MA, Hovanes K, Rodden I, Ossanna LQR, **Gornish ES** (2023) Youth engagement in ecological restoration. *Restoration Ecology* e13916
- (79) Hovanes K, Lien A, Baldwin E, Li YM, Franklin K, **Gornish ES** (2023) Relationships between local-scale topography and vegetation and invasive C4 perennial bunchgrass (*Pennisetum ciliare*) size and reproduction. *Invasive Plant Science and Management* 16: 38-46
- (78) **Gornish ES**, Campbell C, Svejcar L, Munson S, Vaughn K, Spaeth MK, Yelenik SG, Wilf A, Mitchell G (2023) Functional traits are used in restoration practice: a response to Merchant et al. 2022. *Restoration Ecology* e13880
- (77) Munson SM, Farrell HL, Butterfield BJ, Duniway MC, Faist AM, **Gornish ES**, Havrilla CA, Larios L, Reed SC, Rowe HI, Laushman KM, McCormick ML (2023) Soil surface treatments and precipitation timing determine seedling development across southwestern USA restoration

- sites. *Ecological Applications* 33: e2834
- (76) **Gornish ES**, Guo J, Porensky L, Perryman B, Leger EA (2023) Pre-fire grazing and herbicide treatments can affect post-fire vegetation in a Great Basin rangeland. *Ecological Solutions and Evidence* 4: e12215
- (75) Gao Q, Ganjurjav H, Hu G, Xu H, Schwartz MW, **Gornish ES**, Zhu W (2023) Warming diminished the sustainability of primary productivity in global grass- and forb-dominated ecosystems. *Environmental Research Communications* 4: 121006
- (74) Shaw J, **Gornish ES**, Roche LM (2022) Efficacy of strip seeding to restore native grassland plant communities. *Restoration Ecology* 31: e13822
- (73) Ossanna L, **Gornish ES** (2022) Efficacy of labile carbon addition to reduce fast-growing, exotic invasive plants: A review and meta-analysis. *Journal of Applied Ecology* 60: 218-228
- (72) Martyn T, Kwapich C, Kline A, **Gornish ES** (2022) Granivorous ants prefer small and unprotected seeds – Implications for restoration in arid ecosystems. *Restoration Ecology* 31: e13759
- (71) Ganjurjav H, Hu G, Zhang Y, **Gornish ES**, Yu T, Gao Q (2022) Warming tends to decrease ecosystem carbon and water use efficiency in dissimilar ways in an alpine meadow and a cultivated grassland in the Tibetan Plateau. *Agricultural and Forest Meteorology* 323: 109079
- (70) Ganjurjav H, Hu G, **Gornish ES**, Zhang Y, Li Y, Wu H, Yan J, He S, Danjin L, Gao Q (2022) Warming and spring precipitation addition change plant growth pattern but have minor effects on growing season mean gross ecosystem productivity in an alpine meadow. *Science of the Total Environment*. 841: 156712
- (69) Martyn T, Barberán, Blankinship JC, Miller M, Yang B, Kline A, **Gornish ES** (2022) Rock structures improve plant establishment, litter catchment, fungal richness and soil moisture in the first year after installation. *Environmental Management* 70: 134-145
- (68) Nsikani M, Madikizela B, Geerts S, Anderson P, Peer N, **Gornish ES**, Mganga K (2022) UN Decade on ecosystem restoration: key considerations for Africa. *Restoration Ecology* 31: e13699
- (67) Gill A, Oliver JC, Kubby B, Fitting H, **Gornish ES** (2022) Restoring Palmer's agave in a Lehmann lovegrass dominated grassland in Southeastern Arizona. *Restoration Ecology* 30: e13668
- (66) Rao D, Hovanes K, Smith E, Davy J, **Gornish ES** (2022) Russian thistle control in California rangelands over five years. *Invasive Plant Science and Management* 15: 33-40
- (65) Gill A, Fehmi J, **Gornish ES** (2022) Biotic and abiotic factors important for Palmer's agave restoration in Lehmann lovegrass dominated areas. *Ecological Restoration* 40: 36-43
- (64) Yang B, Balazs K, Butterfield B, Laushman K, Munson S, **Gornish ES**, Barberán A (2022) Does restoration of plant diversity trigger concomitant soil microbiome changes in dryland ecosystems? *Journal of Applied Ecology* 59: 560-573
- (63) Williams JP, **Gornish ES**, Barberán A (2022) Effects of buffelgrass removal and nitrogen addition on soil microbial communities during an extreme drought in the Sonoran Desert. *Restoration Ecology* 30: e13570
- (62) Farrell HL, Funk J, Law D, **Gornish ES** (2021) Impacts of drought and native grass competition on Buffelgrass (*Pennisetum ciliare*). *Biological Invasions* 24: 697-708
- (61) Farrell HL, Fehmi J, **Gornish ES** (2021) The effects of site preparation equal to those of seeding at a dryland restoration site: 6 years of plant community development. *Restoration*

*Ecology* 29: e13482

- (60) **Gornish ES**, McCormick M, Begay M, Nsikani MM (2021) Sharing knowledge to improve ecological restoration outcomes. *Restoration Ecology* e13417
- (59) Zijing L, Liang M, Li Z, Mariotte P, Tong X, Dong L, Zheng Y, Ma W, Zhao L, Wang L, Wen L, Tuvhintogtokh I, **Gornish ES**, Zhenhua D, Liang C, Li F (2021) Plant functional groups mediate the effects of climate and soil actors on species richness and community biomass on the Mongolian Plateau grasslands. *Journal of Plant Ecology* 14: 679-691
- (58) Hu G, Gao Q, Ganjurjav H, Wang Z, Luo W, Wu H, Li Y, Yan Y, **Gornish ES**, Schwartz MW, Wan Y, Li Y (2021) The divergent impact of phenology changing on productivity of alpine grassland to different timing of drought on Tibetan Plateau. *Land Degradation & Development* 109: 1014-1025
- (57) Liang M, Smith NS, Chen J, Wu Y, Guo Z, **Gornish ES**, Liang C (2021) Shifts in plant composition mediate grazing effects on carbon cycling in grasslands. *Journal of Applied Ecology* 58: 518-527
- (56) **Gornish ES**, Ganjurjav H, Liang M, Simonis JL, McClaran MP (2021) Identifying restoration opportunities beneath native mesquite canopies. *Restoration Ecology* 29: e13334
- (55) Ganjurjav H, **Gornish ES**, Hu G, Wu J, Wan Y, Li Y, Gao Q (2021) Phenological changes offset the warming effects on biomass production in an alpine meadow on the Qinghai-Tibetan Plateau. *Journal of Ecology* 109: 1014-1025
- (54) Bean T, Davy J, Kyser G, **Gornish ES** (2021) Integration of grazing and herbicide application to manage Barb Goatgrass (*Aegilops triuncialis* L.) and Medusahead (*Elymus caput medusae* L.) in pasture and rangelands. *California Agriculture* 75: 83-89
- (53) Liang M, Feng X **Gornish ES** (2020) Rainfall pulses mediate long-term plant community dynamics in a semi-arid rangeland. *Journal of Applied Ecology* 58: 708-717
- (52) Farrell H, Léger A, Breed MF, **Gornish ES** (2020) Soil microbes and soil processes in restoration. *Restoration Ecology* 28: S307-S310
- (51) Li M, **Gornish ES** (2020) General attributes and practice of ecological restoration in Arizona and California, USA revealed by restoration stakeholder surveys. *Restoration Ecology* 28: 1296-1307
- (50) Shaw JA, Roche LM, **Gornish ES** (2020) The use of spatially patterned methods for vegetation restoration and management across systems. *Restoration Ecology* 28: 766-775
- (49) Von Holle B, Yelenik S, and **Gornish ES** (2020) Restoration at the landscape scale as a means of mitigation and adaptation to climate change. *Current Landscape Ecology Reports* 5: 85-97
- (48) **Gornish ES**, Rowe J, Franklin K, Barberán A (2020) Buffelgrass invasion and glyphosate effects on desert soil microbiome communities. *Biological Invasions* 22: 2587-2597
- (47) Farrell H, Barberán A, Fehmi J, Danielson R, and **Gornish ES** (2020) Disturbance is more important than seeding or grazing in determining soil microbial communities in a semi-arid grassland. *Restoration Ecology* 28: S335-S343
- (46) Qingzhu G, **Gornish ES**, Schwartz M, Fan W, Ganjurjav H, Zheng H, Yue L (2020) Warming and precipitation addition interact to affect plant spring phenology in alpine meadows on the central Qinghai-Tibetan Plateau. *Agricultural and Forest Meteorology* 287: 107943
- (45) Li YM, Roche LM, **Gornish ES** (2020) Bridging the research-implementation gap in weed management on California rangelands. *Rangeland Ecology & Management* 73: 348-357

- (44) Schohr T, **Gornish ES**, Woodmansee G, Shaw J, Tate KW, Roche LM (2020) Practitioner Insights into Weed Management on California's Rangelands and Natural Areas. *Environmental Management* 65: 212-219
- (43) Liang M, **Gornish ES** (2019) Rainfall regulation of grazed grasslands. *Proceedings of the National Academy of Sciences* 116: 23887-23888
- (42) Farrell HL, **Gornish ES** (2019) *Pennisetum ciliaris*: a review of treatment efficacy, competitive traits, and restoration opportunities. *Invasive Plant Science and Management* 12: 203-213
- (41) Ganjurjav H, Zhang Y, **Gornish ES**, Hu G, Li Y, Gao Q (2019) Differential resistance and resilience of functional groups to livestock grazing maintain ecosystem stability in an alpine steppe on the Qinghai-Tibetan Plateau. *Journal of Environmental Management* 251: 109579
- (40) James JJ, Sheley RL, Leger EA, Adler PB, Hardegree SP, **Gornish ES**, and Rinella MJ (2019) Increased soil temperature and decreased precipitation during early life stages constrain grass seedling recruitment in cold desert restoration. *Journal of Ecology* 56: 2609-2619
- (39) **Gornish ES**, Arnold H, and Fehmi J (2019) Review of seed pelletizing strategies for arid land restoration. *Restoration Ecology* 27: 1206-1211
- (38) Liang M, Chen J, **Gornish ES**, Mariotte P and Liang C (2019) Foliar nutrient content mediates effects on species dominance and plant community biomass. *Rangeland Ecology & Management* 72: 899-906
- (37) **Gornish ES**, Shaw J, Gillespie B (2019) Using strip seeding to test how restoration design affects randomness of community assembly. *Restoration Ecology* 27: 1199-1205
- (36) Dechen Silva A, Roche LM, **Gornish ES** (2019) The use of strip-seeding for management of two late-season invasive plants. *Heliyon* 5: e0177cmcm
- (35) Hasbagan H, **Gornish ES**, Qingzhu G, Guozheng H, Yufan W, Yue L, 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* 190:585
- (34) **Gornish ES**, Eastburn D, 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**, 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, 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, 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**, 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, **Gornish ES** (2017) Restoration islands: A tool for efficiently restoration dryland ecosystems. *Restoration Ecology* 25: S124-A134
- (27) **Gornish ES**, 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, **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, Miller TE (2017) Initiating & managing long-term data with amateur 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, 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, Johnson D (2016) Practitioner perspectives on using non native plants for revegetation in California. *California Agriculture* 70: 194-199
- (19) **Gornish ES**, 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 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, **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, 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**, 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**, 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**, 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, 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, Uriarte M (2012) Moving forward in global-change ecology: capitalizing on natural variability. *Ecology and Evolution* 3: 170-181
  - (2) **Gornish ES** Miller TE (2010) Effects of storm frequency on dune vegetation. *Global Change Biology* 16: 2668-2675
  - (1) Miller TE, **Gornish ES**, Buckley H (2010) Climate and coastal dune vegetation: disturbance recovery and succession. *Plant Ecology* 206: 97-104

#### *Other Publications*

- (23) **Gornish ES**, Rein B, Blankinship J, Johnstone P, Sanyal D (2024) Soil health perspectives of Arizona rangeland stakeholders. University of Arizona Cooperative Extension AZ2077
- (22) **Gornish ES**, Shriver L, Corwin R, Havrilla C, Costanzo S, Gehring C (2024) Germination information for common Arizona restoration species. University of Arizona Cooperative Extension Publication AZ2076
- (21) **Gornish ES**, Lauman S, Begay M, Martyn T, Johnstone P, Ossanna L (2023) Restoration Ecology Activity Book. University of Arizona Cooperative Extension Publication AZ2049
- (20) Noel W, Sittig J, **Gornish ES** (2023) Chiricahua Leopard Frog management in southern Arizona. University of Arizona Cooperative Extension Publication AZ2022
- (19) **Gornish ES**, Johnson S (2022) Identifying restoration opportunities under mesquite canopies. University of Arizona Cooperative Extension Publication AZ2007
- (18) **Gornish ES** (2022) Guía de restauración ecológica para niños. ISBN: 979-8844625886
- (17) **Gornish ES** (2022) A kids guide to ecological restoration. ISBN: 979-883496540
- (16) **Gornish ES**, Farrell H, Law D, Funk J (2022) Using native plants to control buffelgrass. University of Arizona Cooperative Extension Publication AZ1996
- (15) **Gornish ES**, Simpson A, Caballero-Reynolds M (2021) Una peloteadora de semillas para uso en jardinería y restauración. University of Arizona Cooperative Extension Publication az1785S
- (14) Mueller P, Mendivil E, Jonas J, Kline A, **Gornish ES** (2021) Seedball design to optimize

- germination. University of Arizona Cooperative Extension Publication AZ1937
- (13) **Gornish ES** (2021) Estrategias para la jardinería y la restauración con pelotas de semillas en paisajes áridos. University of Arizona Cooperative Extension Publication AZ1797S
  - (12) **Gornish ES**, Shaw J, Farrell H, and Roche LM (2021) Novel approaches to ecological restoration in semi-arid and arid habitats. University of Arizona Cooperative Extension Publication AZ1934
  - (11) Hall A, **Gornish ES**, and Ruyle G (2020) Poisonous plants on Arizona rangelands. University of Arizona Cooperative Extension Publication AZ1828
  - (10) **Gornish ES** and Howery L (2020) Non-native, invasive plants of Arizona. University of Arizona Cooperative Extension Publication AZ1482
  - (9) **Gornish ES** (2019) Seed ball strategies for gardening and restoration in arid landscapes. University of Arizona Cooperative Extension Publication AZ1797
  - (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
  - (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) **Gornish ES** (2015) 'Do No Harm' to avoid introducing pests in restoration. *Cal-IPC News* 23: 9

## MEDIA

- (6) EcoRestore (2021 – Present) Ecological restoration portal for the state of Arizona. Approximately 45 unique views per day. [Ecorestore.arizona.edu](http://Ecorestore.arizona.edu)
- (5) **Gornish ES** (2020) 60 second vegetation management tips movie series (12 total). <https://www.gornishlab.com/outreach>
- (4) Muller P, Mendivil L, and **Gornish ES** (2020) Seedballs: The movie. <https://www.gornishlab.com/seedballs>
- (3) **Gornish ES** (2019) Seedballs: Giving nature a helping hand by restoring vegetation. UrbanFarmer Podcast #509. <https://www.urbanfarm.org/2020/01/11/509-elise-gornish/>
- (2) **Gornish ES** (2017) Conservation and Ecology. WatchNature Podcast E3: <https://player.fm/series/watch-nature-podcast-1304777/e3-elise-gornish-conservation-ecology-dune>
- (1) **Gornish ES** (2017) Interview about ecological restoration after fire on Public Radio KZYX on the 'Ecology Hour'. <https://www.kzyx.org/programs/ecology-hour#stream/0>

## RECENT AWARDED GRANTS (total awarded as PI or Co-PI = 5,666,694 USD)

### *Federal*

- **Gornish ES**, Wright A, Hall A, Beard J, Lien A. From soil to snout: A workshop series to prepare ranchers and those who train them for drought resilience on southwestern rangelands. NRCS Conservation Technical Assistance, 12/2023 – 11/2025. \$234,498
- **Gornish ES**, Gerson J. GALs Arizona & Michigan: Girls on outdoor Adventure for Leadership and Science in Arizona and Michigan. USDA Women and Minorities in Science, Technology, Engineering and Mathematics, 09/2023 – 08/2025. \$199, 913
- Havrilla C, Gehring, **Gornish ES**, Munson S. Harnessing livestock and microbes to improve rangeland productivity and soil health. Western SARE, 09/2023 – 08/2026. \$304,450
- **Gornish ES**, Talkington N, Mike J, Jensen K, McCormick M, Chief K. Uniting western restoration strategies and indigenous knowledges to build capacity and climate resilience on the Navajo Nation. Climate Adaptation Science Center, 12/2022 – 11/2025. \$223,398
- **Gornish ES**, Roche L, Yelenik S, Krasch H, Young K. EcoRestore: Online portal and community of practice for ecological restoration for Southwest rangelands and forests. USDA Renewable Resources Extension Act Outreach Grant, 09/2022 – 08/2024. \$97,332
- Ellington EH, Acevedo MA, Campos J, Romerso A, **Gornish ES**, Armando U. Developing a national program for providing extension resources in Spanish. USDA Renewable Resources Extension Act Outreach Grant, 09/2022 – 08/2024. \$100,000
- **Gornish ES** and Blankinship J. From the ground up: Educating Cooperative Extension and NRCS about agricultural technologies to enhance soil health. Western SARE, 06/2022 – 05/2024. \$75,000
- **Gornish ES** and Young K. EcoRestore: Creating an online portal of state-specific IPM information for Arizona and Utah. Western IPM, 03/01/2022 – 02/28/2023. \$26,143
- **Gornish ES**. Restoration ecology internship for southwest National Parks. National Park Service, 12/2020 – 11/2021. \$29,000
- Fisher L and **Gornish ES**. Engaging students in support for grasslands conservation and restoration in the southwest. United States Fish and Wildlife Service, 09/2020 – 08/2025. \$665,000
- **Gornish ES**, Merrigan S, and Archer S. An online toolkit for managing shrub encroachment. USDA Renewable Resources Extension Act Outreach Grant, 01/2021 – 12/22. \$50,000
- 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
- **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
- **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)
- **Gornish ES**, Fehmi J, and Conn J. Restoration ecology internship for southwest National Parks. National Park Service, 09/2018 – 08/2020. \$15,000

### State

- Yazzie D, Sekaquaptewa S, **Gornish ES**. Seed-based workshops for Navajo and Hopi rangeland stakeholders. University of Arizona Cooperative Extension. 01/2023 – 01/2024. \$10,028
- Francois C, and **Gornish ES**. Native Grassland Restoration. Arizona Department of Forestry and Fire Management, 06/2019 – 05/2020. \$10,000
- **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

### Private Foundation

- **Gornish ES**. GALS: Girls on outdoor Adventure for Leadership and Science. Treeline Foundation. 12/23 – 12/25. \$3,333
- **Gornish ES**, Lien A, Taylor C, Johnstone P, Santos A, Barberán A. The art and science of drought resilience through soil health initiatives. University of Arizona Institute for Resilience, 04/2023 – 06/2024. \$99,722
- Jankowski LA, Perotti K, **Gornish ES**. Pollinator Equity Project. University of Arizona, Campus Sustainability Fund, 06/2023 – 05/2024. \$3,900
- **Gornish ES**. Girls on outdoor Adventure for Leadership and Science (GALS). Arizona Institute for Resilient Environments and Societies, 10/2022 – 11/2023. \$5000
- **Gornish ES**, Prudic K, Waller M. Native plant garden installations across UArizona to reduce water and energy use and engage students. University of Arizona, Campus Sustainability Fund, 06/2022 – 05/2024. \$92,600
- **Gornish ES**, Masson R, and Barberán A. Assessing Fusarium wilt of lettuce-suppressive soils using metagenomics. University of Arizona, Accelerate for Success, 06/2022 – 06/2023. \$44,614
- **Gornish ES**, Martyn T, Blankinship J, Sittig J, and Barberán A. Testing media lunas- a cheap and technologically simple approach to enhancing soil health and resilience on Arizona rangelands. Arizona Institutes of Resilience, 11/2021 – 08/2021. \$39,314
- Blankinship J, Babst-Kostecka A, Barberán A, Tfaily M, **Gornish ES**, and Rasmussen C. Developing biological solutions for Arizona dust hazards. Arizona Institutes of Resilience, 02/2021 – 07/2021. \$77,144
- Barberán A, **Gornish ES**, Búrquez A, and Martínez-Yrizar A. Is buffelgrass invasion in the Sonoran Desert altering soil microbial communities? Consortium for the Arizona-Mexico Arid Environments, 06/2020 – 05/2021. \$42,500
- **Gornish ES** and Barberán A. How do soil communities and nitrogen cycling respond to buffelgrass invasion. University of Arizona Foundation Small Grants Program Award, 02/2020 – 01/2021. \$19,472
- **Gornish ES**. Girls on outdoor Adventure for Leadership and Science (GALS). Summit Hut Small Grants Awards Program, 02/2020 – 02/2021. \$2000
- **Gornish ES** and Barberán A. Ecological restoration for soil health research and development lab. University of Arizona CALS Innovation Venture Investment Program, 09/2019 – 09/2021. \$90,000
- 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

I have given literally hundreds of talks, please email me for a full list.