

Eric T. Thacker

Associate Professor of Rangeland Management
Rangeland Management Extension Specialist
Wildland Resources Department
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CAREER SUMMARY (2000 – 2019)

- 30 peer-reviewed journal articles
- 15 peer-reviewed factsheets
- 60 invited presentations
- 51 Other presentations
- \$4,619,239 grant dollars
- 2 MS students completed
- 33 workshops/symposiums
- 30 field tours

EDUCATION

PhD, Wildlife Sciences, Utah State University, 2010. Dissertation: Greater Sage-Grouse Seasonal Ecology and Responses to Habitat Manipulations in Northern, Utah. Advisor: Dr. Terry Messmer

MS, Range Sciences, Utah State University 2006. Thesis: Ecologically – Based Management of Snakeweed – Infested Sagebrush Steppe Communities in the Great Basin. Advisor: Dr. Michael Ralphs

BS, Range Science, Utah State University, 2001.

AS, Natural sciences, Brigham Young University, Idaho (Formerly Rick College), 1997.

PROFESSIONAL EXPERIENCE:

- 2019 – Prsnt. Associate Professor/ Rangeland Management Extension Specialist
Dept. of Wildland Resources, Utah State University
- 2013 – 2019 Assistant Professor/ Rangeland Management Extension Specialist
Dept. of Wildland Resources, Utah State University
- 2011 – 2013 Range Ecologist (post-doctoral research fellow), Dept. of Natural Resources Ecology
and Management, Oklahoma State University
- 2010 – 2011 Research Range Management Specialist (post-doctoral research fellow), USDA – ARS
Southern Plains Range Research Station

2006 – 2010 PhD. Research Assistantship, Dept. of Wildland Resources, Utah State University

2000 – 2006 Range Research Technician, USDA – ARS Poisonous Plant Research Lab

PUBLICATIONS IN PROCESS

* = Graduate student (my lab) † = Graduate student/post doc (other lab)

1. †Riginos, C., K. Gunnell, T. A. Monaco, K. E. Veblen, K. Gunnell, **E. T. Thacker**, D. K. Dahlgren, T. A. Messmer. Potential for post-fire recovery of Greater Sage-grouse habitat (Accepted 7/11/2019)
2. Frey, S. N., **E. T. Thacker**, K. Uhart. 2018. Free-roaming Horses and Burros Coexisting with Wildlife. Utah State University Cooperative Extension. (in review)
3. *Carter, R., **E. T. Thacker**, K. Heaton, B. Burritt. 2019. Grazing and Harvest Efficiency of Forage by Cattle on Western Rangelands. Utah State University Cooperative Extension. (in review)
4. Hoopes, K., **E. T. Thacker**, L. Greenhalgh. 2019. Horse Body condition Score. Utah State University Cooperative Extension. (in review)

PEER-REVIEWED EXTENSION PUBLICATIONS

* = Graduate student (my lab) † = Graduate student/post doc (other lab) student

2019

1. **Thacker, E. T.**, J. Holmstead. 2018. Beaver: It's about Dam time. Utah State University Cooperative Extension. NR/Wildlife/2019-02pr
2. Dahlgren, D. K., **E.T. Thacker**. 2019. Livestock Grazing and Sage-grouse: Science, Policy, and the 7-inch Rule. NR/Wildlife/2019-03pr

2018

3. Stam, B., J. D. Scasta, **E. T. Thacker**. 2018. Animal Unit Month (AUM) Concepts and Applications for Grazing Rangelands. University of Wyoming Extension B-1320.
4. Adler, P., K. Renwick, E. Kachergis, M. Manning, T. Remington, **E. T. Thacker**, C. Aldridge, B. Bradley, A. Kleinhesselink†, C. Curtis, D. Schlaepfer, B. Poulter. Managing big sagebrush in a changing climate. Utah State University Cooperative Extension NR/Wildlands/2018-01pr.

5. **Thacker, E. T.**, J. Holmstead. 2018. Utah monitoring guide. Utah State University Rangeland Extension. (*Peer edited*)
6. Frey, S. N., **E. T. Thacker**. 2018. Wild Horses and Burros: An Overview. Utah State University Cooperative Extension. NR/Wildlife/2018-01pr

2017

7. †Stewart, E., **E. T. Thacker**, M. D. Garcia, J. J. Villalba. 2017. Understanding the contributions of beef cattle to greenhouse gas emissions. Utah State University Cooperative Extension AG/Beef/2017-03pr.
8. **Thacker, E. T.** 2017. Camp Williams targeted grazing plan. Utah State University Cooperative Extension RNG17-001.
9. †Starns H. D., S. D. Fuhlendorf, R. D. Elmore, D. Twidwell, **E. T. Thacker**, T. J. Hovick. 2017. Patch-Burning reduces fuels and benefits prairie-chicken conservation. Great Plains Fire Exchange GPE publication 2017-01.

2016

10. Dahlgren, D. K., **E. T. Thacker**, T. A. Messmer. 2016. Considerations for sage-grouse management objectives. Utah State University Extension NR/Sage-grouse/2016-01pr.

2015

11. Dahlgren, D. K., **E. T. Thacker**, T. A. Messmer. 2015. What does a sage-grouse eat? Utah State University Cooperative Extension NR/Wildlife/2015-06pr.

2014

12. Burritt, B., T. A. Monaco, **E. T. Thacker**. 2014 Should ranchers value sagebrush? Utah State University Cooperative Extension NR/Rangelands/2014-01pr.
13. **Thacker, E. T.**, D. Twidwell. 2014. Synthesis of the effect of fire on lesser prairie-chickens. Great Plains Fire Science Exchange GPE publication 2014-6.

2013

14. **Thacker, E. T.**, R. D. Elmore, B. Reavis, T. G. Bidwell. 2013. Management of sand sagebrush rangelands. Oklahoma State University Cooperative Extension NREM-2892.
15. Elmore, R. D., **E. T. Thacker**, L. M. Smith, D. K. Dahlgren. 2013. Distinguishing between greater and lesser prairie-chicken. Oklahoma Cooperative Extension Service L-421.

PEER-REVIEWED JOURNAL ARTICLES

* = Graduate student (my lab) † = Graduate student/post doc (other lab)

2019

1. †Riginos, C., K. Gunnell, T. A. Monaco, K. E. Veblen, **E. T. Thacker**. 2018. Disturbance type and sagebrush community type affect plant community structure following shrub reduction. *Range Ecology and Management* 72:619-631
2. Stonecipher, C. A., **E. T. Thacker**, K.D. Welch, M. H. Ralphs, T. A. Monaco. 2019. Long-Term Persistence of Cool-Season Grasses Planted to Suppress Broom Snakeweed, Downy Brome, and Weedy Forbs. *Range Ecology and Management* 72:266-274
3. Starns, H. D., S. D. Fuhlendorf, R. D. Elmore, D. Twidwell, **E. T. Thacker**, T.J. Hovick, B. Luttbeg. 2019. Recoupling fire and grazing reduces wildland fuel loads on rangelands. *Ecosphere* 10(1), e02578.

2018

4. *Rigby, C. W., K. B. Jensen, J. E. Creech, **E. T. Thacker**, B. L. Waldron, J. D. Derner. 2018. Establishment and Trends in Persistence of Selected Perennial Cool-Season Grasses in the Western United States. *Range Ecology and Management* 7:681-690
5. Hulvey, K., †K. Thomas, **E. T. Thacker**. 2018. A comparison of two herbaceous cover sampling methods to assess ecosystem services in high-shrub rangelands: photography-based grid point intercept (GPI) versus quadrat sampling. *Rangelands* 40:152-159
6. Monaco, T. A., A. Jones, M. Pendergast, **E. T. Thacker**, L. Greenhalgh. 2018. Influence of land-use legacies following shrub reduction and seeding of big sagebrush sites. *Range Ecology and Management* 71:695-704
7. Danvir, R., G. Simmonds, E. Sant, **E. T. Thacker**, R. Larsen, T. Svejcar, R. D. Ramsey, F. D. Provenza, C. Boyd. 2018. Upland bare ground and riparian vegetative cover under strategic grazing management, continuous stocking and multi-year rest in New Mexico mid-grass prairie. *Rangelands* 40:1- 8

2017

8. Springer, T. L., **E. T. Thacker**. 2017. Apparent seed digestibility and germination of seed after passage through the digestive system of quail. *Southwest Naturalist* 62:193-199.

2016

9. **Thacker, E. T.**, T. L. Springer. 2016. Preference of northern bobwhite quail among native seeds of the sand sagebrush-mixed prairie. *Southwestern Naturalist* 61:307-311.
10. †Tanner, E. P., R. D. Elmore, C. A. Davis, S. D. Fuhlendorf, D. K. Dahlgren, **E. T. Thacker**, J. P. Orange. 2016. Does the presence of oil and gas infrastructure potentially increase risk of harvest in northern bobwhite? *Wildlife Biology* 22:294-304.

11. †Orange, J. P., C. A. Davis, R. D. Elmore, E. P. Tanner, S. D. Fuhlendorf, **E. T. Thacker**. 2016. Evaluating the efficacy of brood flush counts for two quail species. *Western North American Naturalist* 76:485-492.
12. **Thacker, E. T.**, R. L. Hamm, J. Hagen, C. A. Davis, F. S. Guttery. 2016. Evaluation of the Surrogator® system for restoring pheasant and quail populations. *Wildlife Society Bulletin* 40: 310–315.
13. Dahlgren, D. K., T. A. Messmer, R. T. Larsen, R. J. Baxter, T. A. Black, B. A. Crabb, S. N. Frey, M. R. Guttery, **E. T. Thacker**, J. D. Robinson. 2016. Seasonal movements of greater sage-grouse populations in Utah: Implications for species conservation. *Wildlife Society Bulletin* 40:288-299.
14. †Braithwaite, H, †T. M. Bateman, K. E. Veblen, **E. T. Thacker**, J. J. Villalba. 2016. Identification of elk preferences for different diet supplements. *Wildlife Society Bulletin* 40: 368-374.
15. Scasta, J. D., **E. T. Thacker**, T. J. Hovick, D. M. Engle, B. W. Allred, S. D. Fuhlendorf, J. R. Weir. 2016. Patch-burn grazing (PBG) as a livestock management alternative for fire-prone ecosystems of North America. *Renewable Agriculture and Food Systems* 31:550-567.

2015

16. **Thacker, E. T.**, T. A. Messmer, B. Burritt. 2015. Sage-grouse habitat monitoring: Daubenmire vs. line-point intercept. *Rangelands* 37: 7-13.
17. †Tanner, E. P., R. D. Elmore, S. D. Fuhlendorf, C. A. Davis, **E. T. Thacker**, D. K. Dahlgren. 2015. Behavioral responses at distribution extremes: How artificial surface water can affect quail movement patterns. *Rangeland Ecology and Management* 68:476-484.
18. Dahlgren, D. K., R. T. Larsen, R. Danvir, G. Wilson, **E. T. Thacker**, T. Black, J. W. Connelly, T. A. Messmer. 2015. Sage-grouse response to sagebrush treatments: Insights from a 23-year case study in Utah. *Range Ecology and Management* 68:375-382.
19. †Carroll, J. M., C. A. Davis, R. D. Elmore, S. D. Fuhlendorf, **E. T. Thacker**. 2015. Thermal patterns constrain diurnal behavior of a ground-dwelling bird. *Ecosphere* 6:1-15.

2014

20. †Orange, J. P., C. A., Davis, R. A. Van Den Bussche, S. D. Fuhlendorf, R. D. Elmore, **E. T. Thacker**, M. E. Judkins. 2014. Development and characterization of 23 microsatellite loci for scaled quail (*Callipepla squamata*). *Conservation Genetics Resources* 6:929-931.

2013

21. Guttery, M. R., T. A. Messmer, **E. T. Thacker**, N. Gruber, C. M. Culumber. 2013. Greater sage-grouse sex ratios: does the evidence support the assumption? *Journal of Wildlife Management* 77: 1593-1597.

Prior to 2013

22. Gunter, S. A., **E. T. Thacker**, R. L. Gillen, T. L. Springer, R. D. Jones. 2012. Effects of sand sagebrush control in southern mixed-grass prairie rangeland on cattle performance and economic return. *The Professional Animal Scientist* 28:204-212.
23. **Thacker, E. T.**, S. A. Gunter, R. L. Gillen, T. L. Springer. 2012. Sand sagebrush control: implications for lesser prairie chicken habitat. *Range Ecology and Management* 28:204-212.
24. **Thacker, E. T.**, D. R. Gardner, T. A. Messmer, M. R. Guttery, D. K. Dahlgren. 2012. Using gas chromatography to determine winter sage-grouse diets. *Journal of Wildlife Management* 46:588-592.
25. Springer, T. L., G. J. Puerka, D. L. Maas, **E. T. Thacker**. 2011. The Southern Cornstalk Borer (*Diatraea crambidoides* (Grote), Lepidoptera: Crambidae) a New Pest of Eastern Gamagrass (*Tripsacum dactyloides* (L.) L., Poaceae). *Journal of the Kansas Entomological Society* 84:209-216.
26. Dahlgren, D. K., T. A. Messmer, **E. T. Thacker**, M. R. Guttery. 2010. Evaluation of brood detection techniques: recommendations for estimating greater sage-grouse productivity. *Western North American Naturalist* 70:233-237.
27. **Thacker E. T.**, M. H. Ralphs, T. A. Monaco. 2009. A comparison of inter- and intraspecific interference on broom snakeweed (*Gutierrezia sarothrae*) seedling growth. *Invasive Plant Science and Management* 2:36-44.
28. **Thacker E. T.**, M. H. Ralphs, T. A. Monaco. 2009. Seeding cool-season grasses to suppress broom snakeweed (*Gutierrezia sarothrae*), cheatgrass (*Bromus tectorum*) and weedy forbs. *Invasive Plant Science and Management* 2:237-246.
29. **Thacker, E. T.**, M. H. Ralphs, C. A. Call, B. Benson, S. Green. 2007. Invasion of broom snakeweed (*Gutierrezia sarothrae*) following disturbance: evaluating change in a state-and-transition model. *Rangeland Ecology and Management* 61:263-268.
30. Ralphs, M. H., D. R. Gardner, D. L. Turner, J. A. Pfister, **E. T. Thacker**. 2002. Predicting toxicity of tall larkspur (*Delphinium barbeyi*) and measurement of the variation in toxic alkaloid concentration between plants and among years. *Journal of Chemical Ecology* 28:2327-2341.

NON-PEER REVIEWED PUBLICATIONS (Reports, proceedings, management plans and factsheets)

* = Graduate student (my lab) † = Graduate student/post doc (other lab)

2018

1. 40th Annual Range Livestock Workshop & Tour Proceedings. 2018. Utah State University Cooperative Extension. Logan UT (Editor).

2017

2. **Thacker, E. T.**, J. Holmstead. 2017. Utah Wild Horse Facts. Wild Horses in Utah. Utah State University Range Land Extension (tour handout).
3. **Thacker, E. T.**, J. Holmstead. 2017. When there are too many. Utah State University Range Land Extension (tour handout).
4. Ward, R., R. Larsen, K. Salisbury, **E. T. Thacker**. 2017. Economic impact of grazing on the Manti-La Sal National Forest and in Carbon, Emery, and Sanpete Counties. Utah State University Economic Research Institute Report #2017-02.
5. Wild Horse and Burro Summit Steering Committee. 2017. National Wild Horse and Burro Summit facilitated question summary. <https://le.utah.gov/interim/2017/pdf/00004120.pdf>
6. Elmore, D. R., C. H. Bielski, S. D. Fuhlendorf, T. J. Hovick, †H. D. Starns, **E. T. Thacker**, D. Twidwell. 2017. Managing fuels while enhancing prairie – chicken habitat. Final Report. Joint Fire Science PROJECT ID: 13-1-06-8.
7. 39th Annual Range Livestock Workshop & Tour Proceedings. 2017. Utah State University Cooperative Extension. Logan UT (Editor).

2016

8. 38th Annual Range Livestock Workshop & Tour Proceedings. 2016. Utah State University Cooperative Extension. Logan UT (Editor).

2015

9. 37th Annual Range Livestock Workshop & Tour Proceedings. 2015. Utah State University Cooperative Extension. Logan UT (Editor).
10. †Starns, H. D., S. D. Fuhlendorf, R. D. Elmore, T. J. Hovick, D. Twidwell, **E. T. Thacker**. 2015. Patch-burning to manage prairie-chicken habitat and rangeland fuels. Grouse News 49:18-20.

2014

11. Utah Division of Wildlife Resources. 2014. Utah statewide mule deer management plan. Utah Division of Wildlife Resources. Salt Lake City, Utah.
12. *Decker, T. W., **E. T. Thacker**. 2014. Camp Williams Annual Report: Grazing Study

Report. Utah State University.

13. *Dulfon, N., E. T. Thacker. 2014. Annual Report: Evaluation of sagebrush treatments on Parker Mountain. Utah State University.

FUNDED GRANTS & CONTRACTS

PI = Principal investigator Co-PI= cooperating principal investigator.

| | |
|-----------------|---------------|
| Total: | \$4,619,238.5 |
| PI, External | \$1,047,565 |
| Co-PI, External | \$3,110,346 |
| PI, Internal | \$150,327 |
| Co-PI, Internal | \$311,000 |

2019

PI: E. T. Thacker, Co-PI: C. Garn, J. Dallen. 2019. Evaluation of Post Fire Management on Wildfire Recovery in North Western Utah. Utah Watershed Restoration Initiative. 2019-2021, \$69,999

PI: E. T. Thacker, Co-PI: C. Garn, J. Dallen. 2019. Evaluation of post-fire restoration in North Western, Utah. Utah State University, Public Lands Initiative. 2020-2021, \$44,774.40

2018

PI: E. T. Thacker, Co-PI: K. Veblen. 2018. Sagebrush Restoration Project – Monsanto Mine, Soda Springs, ID 2019-2021, \$162,430.65

PI: T. A. Messmer, Co-PI: E. T. Thacker, J. Dallin, M. T. Kohl, J. Small. Development and Evaluation of a compensatory mitigation and conservation strategy optimization tool for private landowners. Utah State University Extension Grant. 2018 – 2020, \$30,000

PI: K. Suding, Co-PI: B. Allred, D. Ferguson, D. Peck, E. Alias, J. James, E. T. Thacker, J. Derner, M. Crimmins, B. Bestelmeyer, J. Bradford, M. McClaran, A. Dunbar-Wallis, A. Felton, P. Adler. Livestock ranching, rangelands, and resilience: ensuring adaptive capacity in an increasingly variable climate. US Department of Agriculture National Institute of Food and Agriculture. 2018 – 2021 \$1,260,000 (to USU \$325,000)

PI: E. T. Thacker, Co-PI: D. Stoner, L. Greenhalgh, M. Nelson. Mapping seasonal water resources to predict wild horse movements and reduce conflict on Utah Rangelands. Utah State University Extension Grants. 2018 – 2020 \$30,000

PI: T. A. Messmer, Co-PI: E. T. Thacker, D. K. Dahlgren. Greater Sage-grouse Responses to Livestock Grazing in Semi-Arid Sagebrush Rangelands. Utah Agricultural Experiment Station. 2018 – 2019, \$52,000

PI: K. M. Rood, *Co-PI:* M. Garcia, R. Larsen, **E. T. Thacker**, E. Rickords, J. Dallin, K. Heaton, K. Nay, K. Chapman. Evaluating Bull Breeding Efficiency and Movement, Sponsored by USU Extension, Utah State University, 2018 – 2020, \$30,000.

PI: **E. T. Thacker**, *Co-PI:* D. K. Dahlgren, T. A. Messmer. Sagebrush Ecosystem Alliance. National Fish and Wildlife Foundation. 2018 – 2020, \$100,000

2017

PI: K. Heaton, *Co-PI:* **E. T. Thacker**, B. Burritt. Utilizing GPS technology to better understand livestock grazing distribution, utilization of forage and harvest efficiency on the Grand Staircase Escalante National Monument. Kane and Garfield Counties. 2017 – 2018 \$10,000

PI: K. Heaton, *Co-PI:* **E. T. Thacker**, B. Burritt. Utilizing GPS technology to better understand livestock grazing distribution, utilization of forage and harvest efficiency on the Grand Staircase Escalante National Monument. Utah State University Extension Grant. 2017 – 2018, \$30,000

PI: K. Heaton, *Co-PI:* **E. T. Thacker**, B. Burritt. Utilizing GPS technology to better understand livestock grazing distribution, utilization of forage and harvest efficiency on the Grand Staircase Escalante National Monument. Bureau of Land Management. 2017 – 2022, \$20,000

PI: K. Heaton, *Co-PI:* **E. T. Thacker**, B. Burritt. Understand Livestock Distribution, Grazing Practices and Statistical Analysis of Rangeland Data. Grand Staircase Escalante National Monument, Bureau of Land Management. 2017 – 2018, \$10,000

PI: T. A. Messmer, *Co-PI:* D. K. Dahlgren, **E. T. Thacker**, K. Hulvey. Completion of the Bureau of Land Management Third Order Habitat Assessment Framework for Utah Sage-grouse Management Areas, BLM Priority and General Habitat Areas and a BLM 4th Order HAF Methods Comparison and Evaluation for the Rich County Sage-grouse Management Area. 2017 – 2021, \$1,200,000

PI: **E. T. Thacker**, *Co-PI:* D. K. Dahlgren, T. A. Messmer. Sagebrush Ecosystem Alliance. Pheasants Forever. 2017 – 2020, \$156,495.

2016

PI: M. Palmer, *Co-PI:* **E. T. Thacker**. Livestock Grazing: An Environmentally Friendly and Economical Solution to Maintaining Fire Breaks in Gamble Oak Dominated Sites. Utah State University Extension Mini-grants. 2016 – 2017, \$10,000

PI: **E. T. Thacker**, *Co-PI:* K. B. Jensen. 2016. Establishment of native grasses, legumes, and forbs in disturbed rangelands using Siberian wheatgrass. US Department of Agriculture Forage and Range Research Lab SCA. 2016 – 2019, \$24,908

PI: E. T. Thacker. Utah Monitoring Crew. Utah Public Land Coordination Program. 2016 – 2017, \$20,000

PI: E. T. Thacker. Wasatch-Cache-Uintah National Forest Sage-grouse Habitat Assessment Framework. United States Forest Service. 2016 – 2021, \$130,595

PI: E. T. Thacker, Co-PI: J. Wheaton. Restoring water, trout, sage-grouse and riparian areas on working lands using beaver in Box Elder County. Watershed Restoration Initiative. 2016 – 2018, \$61,371

2015

PI: E. T. Thacker, Co-PI: K. E. Veblen, T. A. Monaco, J. Vernon. Evaluation of wildfire rehabilitation projects on sage-grouse habitat: Documenting Utah plan conservation strategies. Utah's Public Lands Policy Coordinating Office. 2015 – 2016, \$35,386

PI: D. K. Dahlgren, Co-PI: T. A. Messmer, E. T. Thacker. 2015. Forest grouse management in Utah. Utah Division of Wildlife Resources Grant. 2015, \$120,079

PI: K. E. Veblen, Co-PI: M. Duniway, E. T. Thacker, K. Nehring. Interactive effects of soils and browsing on sagebrush: implications for restoration success. 2015 - 2017 \$225,000

PI: E. T. Thacker, Co-PI: D. K. Dahlgren, K. Heaton, T. A. Messmer. Home on the Range: Maintaining Livestock Production and Robust Wildlife Populations. Utah State University Extension Grant Program 2015 – 2016, \$10,000

PI: K. Hulvey, Co-PI: E. T. Thacker, B. Burritt, D. Rothlisberger, K. E. Veblen, M. Brunson, R. D. Ramsey. Using livestock grazing systems to manage ecosystem services on Utah Rangelands. Utah State University Extension Grant Program 2015 -2016, \$10,000

PI: E. T. Thacker, Co-PI: D. K. Dahlgren, T. A. Messmer. Livestock Grazing and Climatic Influences on a Forest Indicator Species. Utah Agricultural Experiment Station Seed Grants. 2015 – 2017, \$50,000

PI: K. Hulvey, Co-PI: E. T. Thacker, K. E. Veblen, M. Brunson, R. D. Ramsey. Using grazing systems to manage ecosystem services in Utah and western landscapes. Utah Agricultural Experiment Station Seed Grants. 2015 – 2017, \$90,000

PI: T. A. Messmer, Co-PI: K. Hulvey, E. T. Thacker, D. K. Dahlgren. Greater sage-grouse responses to cattle and livestock grazing in sagebrush. Utah Agricultural Experiment Station Seed Grants. 2015 – 2017, \$ 30,000

2014

PI: P. Adler, Co-PI: B. Poulter, C. Aldridge, B. Bradley, J. Balch, J. Bradford, J. Pierce, E. T. Thacker. Forecasting changes in sagebrush distribution and abundance under climate change: integration of spatial, temporal, and mechanistic models Great Basin LLC. 2014 – 2015,

\$99,000

PI: E. T. Thacker, Co-PI: J. Long. Demonstration and evaluation of fall grazing and seeding to rehabilitate annual grass infested rangelands Camp Williams, Utah National Guard. 2014 – 2018, \$7,480

PI: E. T. Thacker, Co-PI: D. Rothlisburger, K. E. Veblen. 2014. Assessment of cattle distribution in Rich County, Utah. Utah State University Extension Grant Program 2014 – 2015, \$10,000

PI: B. Burritt, Co-PI: E. T. Thacker, J. Gale. Creating a venue to keep land managers current on aspen research. Utah State University Extension Grant Program 2014 – 2015, \$10,000

PI: L. Greenhalgh, Co-PI: E. T. Thacker, T. A. Monaco. Quantifying Impacts of Long-term Sagebrush. Utah State University Extension Grant Program 2014 – 2015, \$10,000

PI: K. E. Veblen, Co-PI: T. A. Monaco, E. T. Thacker. Expediting the comprehensive synthesis and assessment of Utah range trend studies and Watershed Restoration Initiative projects. Utah Watershed Restoration Initiative. 2014 – 2015, \$40,301

PI: J. Long, Co-PI: E. T. Thacker. Use of targeted grazing to reduce wildfire risk at Camp Williams. Utah National Guard. 2014 – 2016, \$61,100

PI: E. T. Thacker, Co-PI: D. K. Dahlgren, T. A. Messmer. Quantifying impacts of long-term sagebrush and juniper control. State and Institutional Trust Administration. 2014 – 2016, \$10,000

PI: E. T. Thacker, Co-PI: D. K. Dahlgren, T. A. Messmer. Quantifying impacts of long-term sagebrush and juniper control. Utah Grazing Improvement Project. 2014 – 2016, \$10,000

PI: E. T. Thacker, Co-PI: D. K. Dahlgren, T. A. Messmer. Quantifying impacts of long-term sagebrush and juniper control on private lands. US Fish and Wildlife Service Partners Program. 2014 – 2016, \$8,000

2013

PI: E. T. Thacker, Utah rangeland needs assessment. 2013. Utah State University Extension Grant Program. 2013 – 2014, \$6,540

PI: E. T. Thacker, Co-PI: D. Twidwell, R. D. Elmore, S. D. Fuhlendorf, D. M. Engle, T. J. Hovick. Use of patch burning to control fuels and enhance prairie - chicken habitat. Joint Fire Science. 2013 – 2017, \$279,000 (funded at Oklahoma State University)

INVITED PRESENTATIONS

* = Graduate student (my lab) † = Graduate student/post doc (other lab)

2019

1. **Thacker, E. T.** 2019. The reality of wild horse and burro management on western rangelands. US Senate Committee on Energy and Natural Resources, Subcommittee on public Lands, Forests and Mining. Washington, DC.
2. **Thacker, E. T.** 2019. Pre and post fire monitoring, Utah Beef Field Days, Provo, Utah.
3. **Thacker, E. T.** 2019. Riparian Grazing. Wyoming/Utah Ag Days, Evanston, WY
4. Dahlgren, D., T. A. Messmer, S. Frey, **E. T. Thacker.** 2019. Utah's sage-grouse habitat guidelines Utah All Lands-All Hands Summit. Utah State University, Salt Lake City, UT.
5. **Thacker, E. T.** 2019. Impacts of grazing on sage-grouse. Utah All Lands-All Hands Summit. Utah State University, Salt Lake City, UT.
6. **Thacker, E. T.** 2019. Sagebrush Community Ecology. Utah All Lands-All Hands Summit. Utah State University, Salt Lake City, UT.
7. **Thacker, E. T.** 2018. Managing grazing to ensure sustainable forage. Beaver County producer meeting. Beaver, Utah.

2018

8. **Thacker, E. T., †K. Nehring, K. E. Veblen.** 2018. Large ungulate herbivory on rangelands of the intermountain west. Society for Range Management Annual Meeting, Sparks, Nevada.
9. Messmer, T. A., **E. T. Thacker,** They shoot horse don't they?, Quinney College of Natural Resources Seminar, Utah State University, Logan, Utah
10. **Thacker, E. T., †C. Lott.** 2018. Sagebrush Ecosystem Alliance what have we learned. Intermountain West Joint Venture Ecosystem Alliance Coordination Meeting, Salt Lake City, Utah.
11. **Thacker, E. T.** 2018. Sagebrush Community Ecology. US Forest Service Rangeland Management Specialist Training, Dubois, Idaho.
12. **Thacker, E. T.** 2018. Five Principles of grazing management. The Sustainable Grazing Institute: Merging the art and science of management intensive grazing, Panguitch, Utah.
13. **Thacker, E. T.** 2018. Defining the wild horse conflict. Institute for Humane Studies and Property and Environment Research Center Policy Research Seminar on Resolving Competing Uses for Western Resources and Wildlife Habitat, Billings, Montana.
14. **Thacker, E. T.** 2018. Grazing impacts on sage-grouse. Western Section American Society of Animal Scientists Western Section Annual Meeting, Bend, Oregon.

15. **Thacker, E. T.** 2018. Grazing impacts on sage-grouse. Color Country Local Working Group, Price, Utah.
16. **Thacker, E. T.** 2018. Managing grazing to reduce wildfires. Beef Producer Education Series, Tremonton, Utah.
17. **Thacker, E. T.** 2018. Managing grazing to ensure sustainable forage. Cache Beef Producer Meeting, Logan, Utah.
18. **Thacker, E. T.** 2018. Managing grazing to ensure sustainable forage. Beef Producer Education Series, Tremonton, Utah.
19. **Thacker, E. T.** 2018. Permittee monitoring. Central Utah Grazing Working Group, Richfield, Utah.
20. **Thacker, E. T.** 2018. Permittee monitoring. Southern Utah Grazing Working Group. Cedar City, Utah
21. **Thacker, E. T.** 2018. Permittee monitoring. South Eastern Utah Grazing Working Group, Green River, Utah.
22. **Thacker, E. T.** 2018. Managing grazing to save your grass. 2nd Annual Spring Beef Workshop, Blanding, Utah.
23. **Thacker, E. T.** 2018. Impacts of grazing on sage-grouse. Wyoming Ag Days, Evanston, Wyoming.
24. **Thacker, E. T.** 2018. Impacts of grazing on sage-grouse. Uinta-Wasatch-Cache National Forest, Mountain View – Evanston Permittee Workshop, Mountain View, Wyoming.

2017

25. **Thacker, E. T.** 2017. Plant response to grazing. Piute County Livestock Production Workshop, Junction, Utah.
26. **Thacker, E. T.** 2017. Grazing impacts on sage-grouse. Strawberry Valley Local Working Group, Heber, Utah.
27. **Thacker, E. T., T. A. Messmer, S. Graham.** 2017. Managing landscapes for sage-grouse: green stripping and fire. Utah Bureau of Land Management Fuels Meeting, Logan, Utah.
28. **Thacker, E. T., K. Hulvey.** 2017. Impacts of grazing on *E. coli*. Matt Warner Watershed Workshop, Vernal, Utah.
29. **Thacker, E. T.** 2017. The use of grazing to mitigate wildfires: “Fake news” or “Making

America great again.” Wildland Resources Department Seminar, Logan, Utah.

30. **Thacker, E. T.** 2017. Prescribed burning in sagebrush ecosystems and implications for sage-grouse. Society for Range Management Annual Meeting, St. George, Utah.
31. **Thacker, E. T.** 2017. Defining the wild horse & sage-grouse conflict. Society for Range Management Annual Meeting, St. George, Utah.
32. **Thacker, E. T.** 2017. Grazing as a fuels reduction treatment: How does it all fit? Wyoming Ag Days, Evanston, Wyoming.
33. **Thacker, E. T.** 2017. Managing sagebrush landscapes for sage-grouse and livestock. Wyoming Ag Days, Evanston, Wyoming.

2016

34. **Thacker, E. T.** 2016. Current Status of Wild horses. Webinar series for Western Governors Association (Webinar), Logan, Utah.
35. **Thacker, E. T.** 2016. Utah Monitoring Guide – adaptive management. Utah Section of Society for Range Management, Richfield, Utah.
36. **Thacker, E. T.** 2016. Landscape management of sage-grouse habitat. 8th Intermountain Native Plant Summit, Boise, Idaho.
37. **Thacker, E. T.** 2016. Managing sage-grouse habitat on Parker Mountain. Utah DWR Brown Bag Lunch series, Salt Lake City, Utah.
38. **Thacker, E. T., D. K. Dahlgren.** 2016. Emerging issues for forest grouse conservation in North America: A fresh look at familiar problems. The Wildlife Society Annual Meeting, Raleigh, North Carolina.
39. **Thacker, E. T.** 2016. Rangeland Monitoring. Farm Bureau Public Lands Grazing Conference, Richfield, Utah.
40. **Thacker, E. T.** 2016. Principles of Range Management. Utah Farm and Ranch Assessors Annual Meeting, Logan, Utah.
41. **Thacker, E. T.** 2016. Methods comparisons for sage-grouse habitat measures. Bureau of Land Management HAF Planning Meeting, Salt Lake City, Utah.
42. **Thacker, E. T.** 2016. Utah Rangeland Issues: Fire and wild horses. County Planning Workshop, Richfield, Utah.

2015

43. **Thacker, E. T.** 2015. Current status of wild horses and burros in Utah. Dixie State University

Seminar Series, St George, Utah.

44. **Thacker, E. T.** 2015. Stocking rate: How does it relate to pasture management. Pasture Management Workshop, Utah State University, Logan, Utah.
45. **Thacker, E. T.** 2015. Grazing as a fuels reduction treatment: How does it all fit? Arizona Strip Range and Livestock Workshop, Kanab, Utah.

2014

46. **Thacker, E. T.** 2014 Rangeland issues in Utah: Wild horses. Kentucky Livestock Producers Western Tour, Logan, Utah.
47. **Thacker, E. T.** 2014 Sagebrush community ecology. Master Naturalist Course, Antelope Island, Utah.
48. **Thacker, E. T.** 2014. Rangeland Extension in Utah. College of Agriculture hosts Utah Commissioner of Agriculture: LuAnn Adams, Logan, Utah.
49. **Thacker, E. T.** 2014. Range Mini-school. Utah Association of County Agriculture Agents, Price, Utah.
50. **Thacker, E. T.** 2014. Sagebrush ecology and management. 4-H Educators Conference, Wayne County, Utah.
51. **Thacker, E. T.** 2014. Range Management in Utah. Castle Country Crop School, Price, Utah.

2013

52. **Thacker, E. T.** 2013. Ecology and management of snakeweed. Arizona Strip Noxious Weed Workshop, Hurricane, Utah.
53. **Thacker, E. T.** 2013. Rangeland Extension in Utah. Utah Cattlemen's Association Annual Meeting, Salt Lake City, Utah.
54. **Thacker, E. T.** 2013. Range Extension in Utah. Utah Section Society for Range Management, Cedar City, Utah.
55. **Thacker, E. T.** 2013. Brush management in the southern Great Plains: Past present and future. Society for Range Management, Oklahoma City, Oklahoma.

Prior to 2013

56. **Thacker, E. T.** 2012. Prairie grouse habitat management: Impacts and implications. Natural Resource Ecology and Management Department Seminar. Oklahoma State University, Stillwater, Oklahoma.
57. **Thacker, E. T.** 2012. Evaluation of northern bobwhite in Western Oklahoma. Kansas

Department of Wildlife Parks and Tourism, Annual Fish and Wildlife Division, Salina, Kansas.

58. **Thacker, E. T.** 2012. Range management in the southern Great Plains: The use of prescribed fire and grazing. Coffee Shop Panel Discussion, Comanche Pool Prairie Resource Foundation, Wilmore, Kansas.
59. **Thacker, E. T.**, R. L. Gillen, S. A. Gunter, and T. L. Springer. 2011. Herbicide control of sand sagebrush: Impacts on lesser prairie chicken habitat. Oklahoma Section, Society for Range Management, Woodward, Oklahoma.
60. **Thacker, E. T.**, S. A. Gunter, T. L. Springer, T. A. Messmer, A. Huber, R. Christensen, M. R. Guttery. 2010. Prairie grouse habitat and habitat management. Natural Resource Ecology and Management Department Seminar, Oklahoma State University, Stillwater, Oklahoma.

CONTRIBUTED PRESENTATIONS

* = Graduate student (my lab) † = Graduate student/post doc (other lab)

2018

1. Ransom, C., E. T. Thacker, M. D. Palmer. 2019. Herbicide Control of Death Camas. International Symposium on Poisonous Plants, St. George, Utah.
2. Dahlgren, D., E. T. Thacker, 2018. Forest grouse ecology and management in the western U.S. International Grouse Symposium, Utah State University and IUCN, Logan, UT.
3. Palmer, M. D., E. T. Thacker. 2018. Livestock Grazing: an environmentally friendly and economical solution to maintaining fire breaks. Western Region Annual Meeting NACAA, Cody, Wyoming.
4. Dahlgren, D., E. T. Thacker. 2018. Forest grouse ecology and management in the Bear River Range, Utah. Annual Conference Utah Chapter of The Wildlife Society, UT TWS, Vernal, UT.
5. Danvir, R., G. E. Simmonds, E. D. Sant, **E. T. Thacker**, R. Larsen. A. J. Svejcar, R. D. Ramsey. F. D. Provenza, C. Boyd. 2018. Upland and riparian cover under strategic grazing, continuous stocking and multi-year rest. Society for Range Management Annual Meeting, Sparks, Nevada.
6. Dahlgren, D., T. A. Messmer, S. Frey, **E. T. Thacker**. 2019. Utah's sage-grouse habitat guidelines. Annual Conference Utah Chapter of The Wildlife Society, UT TWS, Vernal, UT.
7. Monaco, T. A., K. E. Veblen, **E. T. Thacker**, †R. Mann. 2018. Native Shrub control and establishment of mixed-species seedings on eight ecological sites in Utah. Society for Range Management Annual Meeting, Sparks, Nevada.

8. †Taylor, J., †J. Butler, K. E. Veblen, **E. T. Thacker**, J. J. Villalba. 2018. Manipulation of elk browsing to improve rangeland vegetation. Society for Range Management Annual Meeting, Sparks, Nevada (poster).
9. **Thacker, E. T.** 2018. Moving forward, why livestock producers should be interested in riparian habitat. Society for Range Management Annual Meeting, Sparks, Nevada.

2017

10. **Thacker, E. T.** 2017. Why utilization matters: Becoming a grass nerd. Uinta-Wasatch-Cache National Forest Permittee Workshop, Logan, Utah.
11. **Thacker, E. T.** 2017. Grass the stockman's crop. Fishlake National Forest Permittee Workshop, Richfield, Utah.
12. **Thacker, E. T.** 2017. Managing drought: grass physiology and drought. Ashley National Forest Permittee Workshop, Vernal, Utah.
13. †Taylor, J. R., K. E. Veblen, **E. T. Thacker**, J. J. Villalba. 2017. Energy and protein-based supplements improve decadent sagebrush use by elk. Society for Range Management Annual Meeting, St. George, Utah (poster).
14. †Starns, H. D., R. D. Elmore, S. D. Fuhlendorf, T. J. Hovick, **E. T. Thacker**, D. Twidwell. Effects of fuels management techniques on fire suppression capability and prairie-chicken habitat. Society for Range Management Annual Meeting, St. George, Utah.
15. †Stonecipher, C., **E. T. Thacker**, K. Welch, M. H. Ralphs. 2017. Long-term evaluation of cool-season grasses seeded within the sagebrush steppe in central and northern Utah. Society for Range Management Annual Meeting, St. George, Utah (Poster).
16. Ramsey, R. D., C. McGinty, †T. Thompson, K. Hulvey, **E. T. Thacker**. 2017. Estimation of shrub height using high-resolution ortho imagery and photogrammetrically derived point clouds. Society for Range Management Annual Meeting, St. George, Utah.

2016

17. **Thacker, E. T.** 2016. Grazing as a fuels reduction treatment. Utah Section of Society for Range Management, Richfield, Utah.
18. **Thacker, E. T.** 2016. Utah State Rangeland Extension Update. Utah Grazing Improvement Program Quarterly Meeting, Provo, Utah.
19. *Decker, T. W., **E. T. Thacker**. 2016. Long-term impact of targeted grazing on native and annual grasses. Society for Range Management Annual Meeting, Corpus Christi, Texas.
20. **Thacker, E. T.** 2015. Current status of wild horses and burros in Utah. Utah Association of

County Governments, St George, Utah.

21. †Starns, H. D., R. D. Elmore, S. D. Fuhlendorf, T. J. Hovick, **E. T. Thacker**, D. Twidwell, 2016. The effects of patch-burning on wildland fuels management. Society for Range Management Annual Meeting, Corpus Christi, Texas.
22. †Starns, H. D., R. D. Elmore, S. D. Fuhlendorf, T. J. Hovick, **E. T. Thacker**, D. Twidwell, 2016. Patch-burning supports heterogeneity of prairie-chicken habitat. Society for Range Management Annual Meeting, Corpus Christi, Texas.
23. †Thomas, K. G., K. Hulvey, **E. T. Thacker**. 2016. A comparison of two methods for sampling herbaceous cover: A Rich County, UT case study. Society for Range Management Annual Meeting, Corpus Christi, Texas (Poster).
24. †Bielski, H., D. Twidwell, R. D. Elmore, D. M. Engle, S. D. Fuhlendorf, T. J. Hovick, **E. T. Thacker**. 2016. Flammability thresholds of eastern redcedar as a potential indicator for heightened wildfire danger. Society for Range Management Annual Meeting, Corpus Christi, Texas.

2015

25. **Thacker, E. T.** 2015. Weed Tracker App: Using sportsman for early medusahead detection. Utah Chukar Foundation Board Meeting, Salt Lake City, Utah.
26. **Thacker, E. T.** 2015. Grazing as a fuels treatment how does it all fit, Utah Association of County Agricultural Agents, Toole County, Utah.
27. *Decker, T. W., **E. T. Thacker**. 2015. Relating grazing utilization to fuels properties in a sagebrush bunchgrass community. Society for Range Management Annual Meeting, Sacramento, California (poster).
28. †Starns, H. D., S. D. Fuhlendorf, T. J. Hovick, **E. T. Thacker**, D. Twidwell, R. D. Elmore. 2015. Impacts on prairie-chicken habitat from management of rangeland fuels. Society for Range Management Annual Meeting, Sacramento, California.
29. Twidwell, D., W. K. Smith, J. Haggerty, S. Running, D. Naugle, S. D. Fuhlendorf, **E. T. Thacker**, †C. L. Wonkka. 2015. Energy development in rangelands part 1: A call for a disciplinary shift. Society for Range Management Annual Meeting, Sacramento, California.
30. †Braithwaite, †H., †T. M. Bateman, J. J. Villalba, K. E. Veblen, **E. T. Thacker**. 2015. Identification of diet supplements for elk management. Society for Range Management Annual Meeting, Sacramento, California.
31. Allred, B. A., D. Twidwell, W. K. Smith, J. Haggerty, S. Running, D. Naugle, S. D. Fuhlendorf, **E. T. Thacker**, C. L. Wonkka. Energy Development on rangelands, part 2:

Impacts on ecosystem services. 2015. Society for Range Management Annual Meeting, Sacramento, California.

2014

32. **Thacker, E. T.** 2014. Livestock distribution in Rich County. Rich County Coordinated Resource Management Group, Randolph, Utah.
33. **Thacker, E. T.** 2014. Rangeland Monitoring. Utah Cattleman's Association Annual Meeting, Salt Lake City, Utah.

2013

34. †Tanner, E. P., R. D. Elmore, C. A. Davis, S. D. Fuhlendorf, **E. T. Thacker.** 2013. Comparative ecology of northern bobwhite and scaled quail in a sand sagebrush community. 67th Annual Conference of the Southeastern Association of Fish and Wildlife Agencies, Oklahoma City, Oklahoma.
35. †Orange J. P., C. A. Davis, R. D. Elmore, S. D. Fuhlendorf, **E. T. Thacker.** 2013. Northern bobwhite (*Colinus virginianus*) and scaled quail (*Callipepla squamata*) chick survival in western Oklahoma. 67th Annual Southeastern Association of Fish and Wildlife Agencies Conference, Oklahoma City, Oklahoma.

Prior to 2013

36. †Carroll, J. M, C. A. Davis, R. D. Elmore, S. D. Fuhlendorf, **E. T. Thacker.** 2012. Quail research update. Department of Natural Resource Ecology and Management, Oklahoma State University, Stillwater, Oklahoma.
37. **Thacker, E. T.,** 2011. Wildlife use and management of old world bluestem pastures. 2011. Old World Bluestem Management Conference. Southern Plains Range Research Station, Woodward, Oklahoma.
38. **Thacker, E. T.,** R. L. Gillen, S. A. Gunter, T. L. Springer. 2011. Herbicide control of sand sagebrush: Impacts on lesser prairie chicken habitat. Society for Range Management Annual Meeting, Billings, Montana.
39. Gunter, S. A., T. L. Springer, E. T. Thacker. 2010. Effects of sand sagebrush control on stocker cattle performance on a southern mixed prairie community. 4th Grazing Livestock Nutrition Conference, Estes Park, Colorado.
40. **Thacker, E. T.,** T. A. Messmer, A. Huber, R. Christiansen, N. Gruber, M. R. Guttery, and B. Maxfield. 2010. Greater sage-grouse brood responses to prescribed fire in northeastern, Utah. Society of Range Management, Denver, Colorado.
41. Messmer, T. A., D. K. Dahlgren, S. N. Frey, M. R. Guttery, **E. T. Thacker.** 2010. Managing greater sage-grouse habitats using the cow, plow, axe, and fire: Lessons from Leopold. Society of Range Management, Denver, Colorado.

42. **Thacker, E.T.**, D. R. Gardner, T. A. Messmer, M. R. Guttery, D. K. Dahlgren. 2008. Using gas chromatography to determine wintering greater sage-grouse diets. The Wildlife Society Annual Meeting, Monterey, California.
43. **Thacker, E. T.**, D. R. Gardner, T. A. Messmer, M. R. Guttery, D. K. Dahlgren. 2008. Using gas chromatography to determine wintering greater sage-grouse diets. Western Association of Fish and Wildlife Agencies Sage-grouse and Sharp-tailed Grouse Technical Committee, Mammoth Lakes, California.
44. **Thacker, E. T.**, T. A. Messmer. 2008. Research Update: Results from 2008 field season. Box Elder Adaptive Management Sage-grouse Local Working Group, Park Valley, Utah.
45. **Thacker, E. T.**, T. A. Messmer. 2008. An evaluation of small scale prescribed fire on sage-grouse in a mountain big sagebrush community in northeastern Utah. Uinta Basin Adaptive Management Local Working Group Meeting, Vernal, Utah.
46. Dahlgren, D. K., **E. T. Thacker**, T. A. Messmer. 2007. Use of bird dogs in prairie grouse research: field case study. Prairie Grouse Technical Council, Chamberlain, South Dakota.
47. **Thacker, E. T.**, T. A. Messmer. 2007. Research update: Results from 2007 field season. Box Elder Adaptive Management Sage-grouse Local Working Group, Park Valley, Utah.
48. **Thacker, E. T.** 2007. Evaluation of habitat use and habitat stability of northern Utah's sage-grouse and the effects of sagebrush thinning treatments on sage-grouse pre-laying and brooding habitats. Inaugural Sage-grouse Summit, Salt Lake City, Utah.
49. **Thacker, E. T.**, T. A. Messmer. 2007. Research update: Results from 2007 field season. Box Elder Adaptive Management Sage-grouse Local Working Group, Park Valley, Utah.
50. **Thacker, E. T.**, M. H. Ralphs, C. A. Call. 2005. Evaluation of four ecological states within a shrub-steppe community to resist snakeweed invasion. Society of Range Management, Ft Worth, Texas.

EXTENSION ACTIVITIES: Field Tours

2018

1. Box Elder Review: The success of collaborative sagebrush management, Box Elder County, Utah, 2018
2. Utah Section for Range Management Summer Tour: Range Olympics, Iron and Garfield County, Utah, 2018

3. Beef Basin Field Tour: Sagebrush planting review, San Juan County, Utah, 2018

2017

4. Wild Horse and Burro Summit Field Tour, Delta, Utah, 2017
5. Ashley National Forest Monitoring Field Day, Daggett, Utah, 2017
6. Ashley National Forest Monitoring Field Day, Uintah County, Utah, 2017
7. Partnering to Conserve Sagebrush Rangelands in Utah. Intermountain Joint Venture, Box Elder County, Utah, 2017

2016

8. Grazing Management Field Day: Considerations for using grazing as a fuels reduction treatment, Sanpete County, Utah, 2016
9. Parker Adaptive Resource Management Field Tour: Mytoge Mountain Project, Wayne County, Utah, 2016
10. Rich County Coordinated Resource Management Group Annual Field tour, Rich County, Utah, 2016

2015

11. Six County Association of Government Natural Resources Field Day: Sagebrush management and sage-grouse, Parker Mountain, Utah, 2015
12. Arizona Strip Range/Livestock Field Tour, Washington County, Utah 2015
13. Utah Agricultural County Agents Association Summer Field Tour: Sagebrush treatments and seedings, Toole County, Utah, 2015
14. Logan Canyon Grazing Association/USFS Monitoring Field Tour, Cache County, Utah, 2015
15. Black Grass Bug Tour: Box Elder County Damage Assessment, Box Elder County, Utah, 2015
16. West Box Elder Coordinated Resource Management Group Summer Tour: Impacts of juniper treatments and sagebrush removal, Park Valley, Utah, 2015

2014

17. Utah State University Research Field Day at Camp Williams: Targeted grazing for fuels reduction, Bluffdale, Utah, 2014
18. Parker Adaptive Resource Management Local Working Group Lek Counts. Parker Mountain, Utah, 2014

19. Utah 4-H Educators Sage-grouse Lek viewing, Wayne County, Utah, 2014
20. Black Grass Bug Damage Tour, Box Elder County, Utah, 2014
21. Iron Will Family Day at Camp Williams, Bluffdale, County, Utah 2014
22. Parker Mountain Local Working Group Summer Tour. Parker Mountain, Utah, 2014
23. Oklahoma State University Graduate Student Rangeland Issue Tour, Wayne, and Duchesne County, Utah, 2014
24. Cache National Forest and Trout Unlimited. Future Projects/riparian tour. Cache County, Utah, 2014
25. Arizona Strip Range/Livestock Field Tour, Kane and Washington County, Utah, 2014

2013

26. Utah Sage-grouse Implementation Team Field Tour, Box Elder County, Utah, 2013
27. Quail Field Day, Packsaddle Wildlife Management Area, Ellis County, Oklahoma, 2013

Prior to 2013

28. Patch burning projects and rangeland management in the Southern Great Plains for Arkansas State University: Management of South Western Rangelands, Woodward County, Oklahoma, 2010
29. Sand Sagebrush treatments at the Southern Plains Experimental Range, Woodward County, Oklahoma, 2010
30. Tour of the Southern Plains Experimental Range for Oklahoma (Farm Bureau), Range management techniques for lesser prairie chicken habitat, Woodward County, Oklahoma, 2010

EXTENSION ACTIVITIES: Workshops/Symposiums

2019

1. Utah All Lands-All Hands Summit. Salt Lake City, Utah, 2019
2. Managing Free-roaming Equids and Sustainable Ecosystems, Reno, NV, 2019
3. 41st Annual Arizona Strip Range Livestock Workshop, Kanab, and Orderville, Utah, 2019
4. The Sustainable Grazing Institute: Merging the art and science of management intensive grazing, Ephraim, Utah 2019

2018

5. 40th Annual Arizona Strip Range Livestock Workshop, Kanab, and Orderville, Utah, 2018
6. The Sustainable Grazing Institute: Merging the art and science of management intensive grazing, Panguitch, Utah 2018
7. Beef Producer Education Series, Grazing Management, Tremonton, Utah, 2018
8. Beef Producer Education Series, Fuels and Grazing, Tremonton, Utah, 2018
9. Cache Beef Producer Meeting, Management of Grazing Operations, Logan, Utah, 2018
10. Utah Grazing Working Group: Permittee Monitoring, Cedar City, Utah, 2018
11. Utah Grazing Working Group: Permittee Monitoring, Green River, Utah, 2018
12. Utah Grazing Working Group: Permittee Monitoring, Richfield, Utah, 2018
13. Second Annual Spring Beef Workshop. Blanding, Utah, 2018
14. Restoring and Managing the “Emerald Islands” of the Sagebrush Sea: New Science, Sticks and Stones, and the Eager Beaver: Society for Range Management Annual Meeting, Sparks, Nevada 2018

2017

15. Piute County Livestock Production Workshop, Junction, Utah, 2017
16. Wild Horse Forum, Utah Society for Range Management, Midway, Utah, 2017
17. Wild Horse and Burro Summit, Salt Lake City, Utah, 2017
18. Sage-grouse Habitat Assessment Framework, Nephi, Utah, 2017
19. Ashley National Forest Permittee Workshop: Understanding your Grazing Permit, Daggett, Utah, 2017
20. Ashley National Forest Permittee Workshop: Understanding your Grazing Permit, Vernal, Utah, 2017
21. Fishlake National Forest Permittee Workshop: Understanding Your Grazing Permit, Richfield, Utah, 2017
22. 39th Annual Arizona Strip Range Livestock Workshop, Kanab, and Orderville, Utah, 2017

23. Uinta-Wasatch-Cache National Forest Permittee Workshop: Understanding your Grazing Permit, Logan, Utah, 2017

2016

24. Sagebrush Ecosystem Conservation, All Hands, All Lands, Salt Lake City, Utah, 2016

25. Ashley National Forest Permittee Monitoring Workshop, Daggett County, Utah, 2016

26. Ashley National Forest Permittee Monitoring Workshop, Uinta County, Utah, 2016

27. Utah Section Society for Range Management, Rangeland Science Roundup, Richfield, Utah, 2016

28. Kyrgyzstan Range Management Tour of Northern, Utah. Box Elder and Rich County, Utah, 2016

29. 38th Annual Arizona Strip Range Livestock Workshop, Kanab, and Orderville, Utah, 2016

2015

30. Dixie National Forest Understanding your Forest Service Permits, Cedar City, Utah, 2015

31. Wild Horses and Burros in Utah, Utah Association of Counties, Saint George, Utah, 2015

32. FFA Western National Rangeland Judging, Orderville, Utah, 2015

33. 37th Annual Arizona Strip Range Livestock Workshop Kanab, and Orderville, Utah, 2015

34. Weber River Watershed Range Workshop, Morgan, Utah, 2015

35. Vulnerability Assessment of Ecological Impacts of Climate Change in Sagebrush Steppe, Society for Range Management Annual Meeting, Sacramento, California, 2015

2014

36. 36th Annual Arizona Strip Range Livestock Workshop, Kanab, and Orderville, Utah, 2014

EXTENSION ACTIVITIES: Popular Press and News Media

1. The County Seat, Wild Horse and Burro Summit. Appeared on show 8/24/2017 <https://www.youtube.com/watch?v=qiOf1h1ct5M>
2. USU officials defend wild horse and burro conference. Interviewed and quoted by Kevin Opsahl Herald Journal 8/21/2017 <https://www.hjnews.com/allaccess/usu-officials-defend->

wild-horse-and-burro-conference/article_b20d1e8b-4649-56c4-83a4-323dc83a2543.html

3. Why Oklahoma's High Plains Are Turning into a Sea of Juniper. Interviewed and quoted by Kyle Walker 11/16/2015. <https://www.inverse.com/article/8198-why-oklahoma-s-high-plains-are-turning-into-a-sea-of-juniper>
4. Southern Utah range conference provides lessons on using grazing to reduce wildfire threats. Interviewed and quoted by Matt Hargreaves, Utah Farm Bureau News 05/2015.
5. Q & A Livestock grazing on public lands. Provided information on stocking rates for Brett Prettyman, The Salt Lake Tribune 5/20/2014. <https://archive.sltrib.com/article.php?id=30963979&itype=storyID>
6. As Western range suffers, should Utah cull wildlife? Interviewed and quoted by Brett Prettyman, The Salt Lake Tribune 6/11/2014. <https://archive.sltrib.com/article.php?id=30942924&itype=storyID>
7. Conflict on the Range Wildlife and Livestock. Interviewed by Cool Science Radio KPCW Radio Station. Park City Utah 5/22/2015.
8. Impacts of the Rockport fire on plant communities and wildlife. Interviewed by This green Earth KPCW Radio Station. Park City Utah 9/3/2013.

EXTENSION ACTIVITIES: Webinars, Social Media, and Technology

1. Restoring and Managing the "Emerald Islands" of the Sagebrush Sea: New Science, Sticks and Stones, and the Eager Beaver. 2/01/2017 <https://www.sagegrouseinitiative.com/free-live-broadcast-range-management-2018/>
2. Western Governors Association, National Forest and Rangeland Management Initiative Webinar: The Future of Wild horse Management. 11/10/2016 <http://westgov.org/news/watch-national-forest-rangeland-management-initiative-webinar-the-future-of>
3. Sagebrush Ecosystem Conservation: all hands all lands Conference Proceedings. 2/23/2016 <https://sagebrushconference2016.org/Proceedings/Agenda.cfm>
4. **Thacker, E. T.**, D. K. Dahlgren, W. James. 2015. Weed Tracker App (IOS operating system) currently in beta testing.
5. **Thacker, E. T.**, B. Burritt. 2015. Drought and Climate web page. <https://extension.usu.edu/rangelands/pages/drought-and-climate>
6. **Thacker, E. T.** 2014. USU Rangeland Extension Facebook page

MULTI-STATE RESEARCH PROJECTS

- 2019 – 2019 Maintaining Resilient Sagebrush & Rural Communities W1188 (Chair)
- 2018 – 2019 Wild horse and burro management W507
- 2017 – 2018 Endangered Species Science and Policy WDC40
- 2015 – 2017 Using Science-Based Solutions in Conservation of Threatened and Endangered Species: Sage-Grouse Case Study W506

AWARDS

- 2016 Utah Section of the Society for Range Management Range Manager of the Year

TEACHING EXPERIENCE

Instructure of Record

- 2014 – Prsnt WILD 4000, Principles of Range Management
- 2017 – Prsnt WILD 6900, Principles of Range Management (graduate section)

Guest Lecture

- 2018 Landscape Ecology Senior Capstone Course
- 2018 WILD 2000 Introduction to Natural Resource Management
- 2015 – Prsnt WILD 2400, Wildland Resources Techniques

GRADUATE STUDENT ADVISING

Graduate Students (Current)

- Mike Anderson, MS of Range Science, 2018 – Prsnt
- Ruger Carter, MS of Range Science, 2018 – Prsnt

- Elizabeth Bailey, MS Ecology (co-advisor) 2018 – Prsnt
- Rayce Bryan, MS Range Science, 2019 – Prsnt

Graduate Students (Completed)

- Travis Decker, MS of Range Science, 2014 – 2018: “Targeted-grazing as a fuels treatment: evaluation of vegetation dynamics and utilization levels.” currently employed by US Forest Service
- Nathan Dulfon, MS of Range Science, 2014 – 2017: “Sagebrush ecology of Parker Mountain, Utah” currently employed US Forest Service

Graduate Student Committees (current)

- Casey Spackman, PhD
- Christopher McGinty, PhD
- Justen Small, PhD
- Pat Jackson, PhD
- Sebastian Lagrange, PhD
- Stephanie Landry, PhD
- Calee Lott (Garn), MS
- Hailey Wayment, MS
- Mike Wardle, MNR
- Raul Guevera, MS
- Scott Fox, MS
- Scott Zimmerman, MS
- Wayne Smith, MS

Graduate Student Committees (defended)

- Bryan Dayton, PhD, completed 2014
- Charles Stanford, MS, completed 2016
- Craig Rigby, MS, completed 2016
- Elizabeth Stewart, MS, completed 2018
- Jaycee Pisset, MNR, completed 2017
- Kristin Heroy, PhD, completed 2017
- Seth Dettenmaier, PhD, completed 2018
- Skyler Farnsworth, MS, completed 2018

EMPLOYEE SUPERVISION

Fulltime and Contract positions

- 2017 – Prsnt Calee Lott (Garn). Sagebrush Ecosystem Alliance Coordinator. Responsible for conservation coordination between public land managers and livestock producers as well as coordinating conservation efforts between federal and state agencies.
- 2015 – 2017 Todd Black. Todd worked as a semi-permanent contract employee who over saw field crews working on USFS and BLM sage-grouse habitat Frame Work Assessments across most of Northern, Utah.
- 2016-2018 Jamilee Holmstead. Worked as a technical writer that helped facilitate and write the Utah Monitoring Guide. She has also helped write factsheets.

Internships

- 2017 – 2018 Katlyn Uhart. Extension Internship. Collected and synthesized information on impacts of wild horse on wildlife habitat, produced factsheet (coauthor review)
- 2015 – 2016 Calee Lott (Garn), Seth Scheringer. Extension Internship. Summarized and synthesized sagebrush treatment data to help demonstrate the costs and benefits of sagebrush management

Seasonal Technicians

2019

- Kaden Potter, Rangeland Technician
- Rayce Bryan, Rangeland Technician

2018

- Alice Kenely, Range technician
- Brigham Crane, Range technician
- Caleb Gentry, Range technician
- Kadden Potter, Range technician
- Mike Anderson, Range technician
- Rayce Bryan, Range technician
- Sierra Allen, Range technician
- Shan Sherwood, Range technician
- Wayne Smith, Range technician

2017

- Alex Berryman, Range technician
- Brigham Crane, Range technician

- Brianna Young, Range technician
- Nick Macriss, Range technician
- Travis Decker, Range technician

2016

- Brigham Crane, Range technician
- Byson Mackey, Range technician
- Travis Decker, Range technician
- Wes Anderton, Range technician

2015

- Blake Croft, Range technician
- Kristina Wood, Range technician

2014

- Blake Croft, Range technician
- Kristina Wood, Range technician

SERVICE

Professional Affiliations

2000 – Prsnt Member, Society for Range Management

2000 – Prsnt Member, Utah Section of Society for Range Management

2009 – 2018 Member, The Wildlife Society

2013 – 2018 Member, The Wildlife Society, Range Wildlife Working Group

Professional Leadership Positions

2018 – 2019 President, Utah Section for Range Management

2018 – 2019 President, Range Science Education Council

2017 – 2018 Secretary, Range Science Education Council

2017 – 2018 Vice President, Utah Section of Society for Range Management

Professional Committees

- 2013 – Prsnt Utah Grazing Improvement Program, Board Member and Technical Committee Member
- 2014 – Prsnt Leopold Conservation Award Selection Committee
- 2017 – 2018 International Grouse Symposium Planning Committee (Field Tours)
- 2018 Congressman Chris Stewart’s Wild Horse Round Table
- 2016 – 2017 Society for Range Management St. George Annual Meeting Planning Committee (Program Committee)
- 2014 – 2018 Society for Range Management, Range Science Education Council
- 2010 – 2018 Society for Range Management, Wildlife Habitat Committee
- 2014 – 2015 Utah Division of Wildlife Resources Mule Deer Planning Committee
- 2010 – 2013 Section of Society for Range Management, Under Graduate Range Management Exam Committee
- 2012 – 2013 Society for Range Management Oklahoma City Annual Meeting Planning Committee (Program Committee)

Service to Utah State University

- 2019 Juab County Agricultural Extension Agent Search Committee, Southern Region Extension, Utah State University
- 2019 Summit County Agricultural Extension Agent Search Committee, Northern Region Extension, Utah State University
- 2019 Wildlands Resources Dept. Head Search Committee, Wildland Resources Dept. Utah State University
- 2018 Rangeland Education Search Committee, Wildland Resources Dept. Utah State University (Chair)
- 2017 – 2018 Utah State University Range Club (co-advisor)
- 2017 Wildlife Ecologist (Uinta Basin Regional Campus) Search Committee, Wildland Resources Department, Utah State University

- 2017 Box Elder County Agricultural Extension Agent Search Committee, Northern Region Extension, Utah State University
- 2017 Rich County Agricultural Extension Agent Search Committee, Northern Region.
- 2016 – 2017 Fire Ecologist Search Committee, Wildland Resources Department, Utah State University
- 2016 Utah State University, Extension Grant Review Committee (Chair).
- 2016 Utah State University, Agricultural Experiment Station Grant Review Board.

Manuscript and Grant Proposal Reviews

2018 – Prsnt Associate Editor, Poisonous Plants Journal.

| Manuscript Reviews | Total |
|---|-------|
| Range Ecology and Management | 5 |
| Rangelands | 4 |
| Western North American Naturalist | 2 |
| Journal of Fish and Wildlife Management | 1 |
| Ecological Applications | 1 |
| Frontiers of Ecology | 1 |
| Wildlife Human interaction | 1 |
| TOXICON | 1 |
| Factsheets | 5 |
| Misc. | 2 |
| Total | 23 |
| Grants Proposal Reviews | |
| USU Agricultural Experiment Projects | 3 |
| Grant | 1 |
| Total | 4 |

