

# Alexander Leventon Metcalf

## CURRICULUM VITAE

Department of Society & Conservation  
College of Forestry & Conservation, University of Montana  
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<http://www.cfc.umt.edu/research/humandimensions/>

## APPOINTMENTS

Associate Professor (2021 – Present)  
Dept. of Society & Conservation, College of Forestry & Conservation, University of Montana

Assistant Professor (2018 – 2021)  
Dept. of Society & Conservation, College of Forestry & Conservation, University of Montana

Research Assistant Professor (2015 – 2018)  
Dept. of Society & Conservation, College of Forestry & Conservation, University of Montana

Research Assistant Professor (2013 – 2015)  
Dept. of Forest Management, College of Forestry & Conservation, University of Montana

Teaching Adjunct Professor (2012)  
Dept. of Society & Conservation, College of Forestry & Conservation, University of Montana

Teaching Adjunct Professor (2008 – 2011)  
Department of Environmental Sciences, Juniata College

## PREPARATION

2010-12 Post-Doctoral Scholar, Penn State University, University Park, PA  
*Human dimensions of private forest conservation*

2010 Doctor of Philosophy (Ph.D.), Penn State University, University Park, PA  
Dual Degree: Forest Resources, and Human Dimensions of Natural Resources and the Environment  
*Dissertation: "Human dimensions of private forest landownership: Sampling, estimation, decision making, and implications."*

2006 Master of Science (M.S.), Penn State University, University Park, PA  
Forest Resources  
*Thesis: "Sampling protocol for a statewide survey of Pennsylvania's private forest landowners."*

2001 Bachelor of Science (B.S.), Juniata College, Huntingdon, PA  
Environmental Science

## PUBLICATIONS

ORCID: [0000-0001-9532-585X](https://orcid.org/0000-0001-9532-585X)

\* indicates graduate student as lead author

### Refereed journal articles

31. \*Smith, A. P., Metcalf, E. C., Nesbitt, H. K., Leonard, H. J., Cummins, T. M., **Metcalf, A.L.**, & Graefe, A. R. (2022). Confidence, community & conservation: Exploring the relationship between self-efficacy and experience in female hunters. *Journal of Outdoor Recreation and Tourism*, 100568. <https://doi.org/10.1016/j.jort.2022.100568>

30. Ulrich-Schad, J. D., Li, S., Arbuckle, J. G., Avemegah, E., Brasier, K. J., Burnham, M., Chaudhary, A. K., Eaton, W. M., Gu, W., Haigh, T., Jackson-Smith, D., **Metcalf, A.L.**, Pradhananga, A., Prokopy, L.S., Sanderson, M., Wade, E., & Wilke, A. (2022). An Inventory and Assessment of Sample Sources for Survey Research with Agricultural Producers in the US. *Society & Natural Resources*, 1-9. <https://doi.org/10.1080/08941920.2022.2081392>
29. Van Bavel, J. J., Cichocka, A., Capraro, V., Sjästad, H., Nezelek, J. B., ... **Metcalf, A.L.** ... (~200 others) & Jørgensen, F. J. (2022). National identity predicts public health support during a global pandemic. *Nature communications*, 13(1), 1-14. <https://www.nature.com/articles/s41467-021-27668-9>
28. Glikman, J. A., Frank, B., Ruppert, K. A., Knox, J., Sponarski, C. C., Metcalf, E. C., **Metcalf, A. L.**, & Marchini, S. (2021). Coexisting with different human-wildlife coexistence perspectives. *Frontiers in Conservation Science*, 75. <https://doi.org/10.3389/fcosc.2021.703174>
27. \*Pendergraph, D. P., Ranieri, J., Ermatinger, L., Baumann, A., **Metcalf, A. L.**, DeLuca, T. H., & Church, M. J. (2021). Differentiating Sources of Fecal Contamination to Wilderness Waters Using Droplet Digital PCR and Fecal Indicator Bacteria Methods. *Wilderness & Environmental Medicine*, 32(3), 332-339. <https://doi.org/10.1016/j.wem.2021.04.007>
26. \*Nesbitt, H.K., **Metcalf, A.L.**, Lubeck, A.A., Metcalf, E.C., Beckman, Smith, A., & Cummins, T. (2021). Collective factors reinforce individual contributions to human-wildlife coexistence. *Journal of Wildlife Management*. <https://doi.org/10.1002/jwmg.22061>
25. Berry, M. S., Repke, M. A., **Metcalf, A. L.**, & Jordan, K. E. (2020). Promoting healthy decision-making via natural environment exposure: initial evidence and future directions. *Frontiers in Psychology*, 11, 1682. <https://doi.org/10.3389/fpsyg.2020.01682>
24. \*Sketch, M., Dayer, A.A., & **Metcalf, A.L.** (2020). Western rancher perspectives on social ecological services provided by flood irrigation. *Rangeland Ecology and Management*, 73(2), 287-296. <https://doi.org/10.1016/j.rama.2019.12.003>
23. Carter, N., Williamson, M.A., Gilbert, S., Lischka, S.A., Prugh, L.R., Lawler, J.J., **Metcalf, A.L.**, Jacob, A., Beltran, B.J., Castro, A.J., Sage, A., & Burnham, M. (2020). Integrated spatial analysis for human-wildlife coexistence. *Environmental Research Letters*, 15(2). <https://doi.org/10.1088/1748-9326/ab60e1>
22. Berry, M.S., Repke, M.A., **Metcalf, A.L.**, & Jordan, K.E. (2020). Improving healthy and sustainable decision-making: Psychological science meets ecological conservation. *Frontiers in Psychology*, 11. <https://doi.org/10.3389/fpsyg.2020.01682>
21. Jones, K., Abrams, J., Belote, T., Beltran, B., Brandt, J., Carter, N., Castro, A. J., Chaffin, B. C., **Metcalf, A. L.**, Roesch-McNally, G., Wallen, K., & Williamson, M. A. (2019). The American West as a social-ecological region: Drivers, dynamics, and implications for nested social-ecological systems. *Environmental Research Letters*, 14(11). <https://doi.org/10.1088/1748-9326/ab4562>
20. \*Sketch, M., Dayer, A.A., & **Metcalf, A.L.** (2019). Engaging landowners in the conservation conversation through landowner-listening workshops. *Society and Natural Resources*, 33(5). <https://doi.org/10.1080/08941920.2019.1657996>
19. **Metcalf, A.L.**, Phelan, C.N., Pallai, C., Norton, M., Yuhas, B., Finley, J.C., & Muth, B.A. (2019). Microtargeting for conservation. *Conservation Biology*, 33(5), 1141-1150. <https://doi.org/10.1111/cobi.13315>
18. McWethy, D., Schoennagel, T., Higuera, P.E., Krawchuk, M., Harvey, B.J., Metcalf, E.C., Schultz, C., Miller, C., **Metcalf, A.L.**, Buma, B., Virapongse, A., Kulig, J.C., Stedman, R.C., Ratajczak, Z., & Nelson, C. (2019). Wildfire in the west: Learning to live in increasingly fire-prone landscapes. *Nature Sustainability*, 2. <https://doi.org/10.1038/s41893-019-0353-8>
17. Blascovich, G., & **Metcalf, A.L.** (2019). Improving non-hunters' attitudes toward hunting. *Human Dimensions of Wildlife*, 24(5). <https://doi.org/10.1080/10871209.2019.1605636>

16. \*Lubeck, A., **Metcalf, A.L.**, Beckman, C., Yung, L., & Angle, J. (2019). Collective factors drive individual invasive species control behaviors: Evidence from private lands in Montana, USA. *Ecology & Society*, 24(2), 32-41. <https://doi.org/10.5751/ES-10897-240232>
15. Higuera, P.E., **Metcalf, A.L.**, Miller, C., Buma, B., Metcalf, E.C., McWethy, D., Ratajczak, Z., Nelson, C., Chaffin, B., Stedman, R., McCaffrey, S., Schoennagel, T., Harvey, B., Hood, S., Schultz, C., Black, A., Campbell, D., Haggerty, J., Keane, R., Krawchuk, M., Kulig, J., Rafferty, R., & Virapongse, A. (2019). The value in resilience: Integrating subjective and objective dimensions of resilience in fire-prone landscapes. *BioScience*, 69(5), 379-388. <https://doi.org/10.1093/biosci/biz030> (Note: Selected as "Editor's Choice" for Volume 69, Issue 5)
14. Bagavathiannan, M., Graham, S., Ma, Z., Barney, J., Coutts, S., Caicedo, A., De Clerck-Floate, West, N., R., Blank, L., **Metcalf, A.L.**, Lacoste, M., Evans, J., Moreno, C., Burke, I., & Beckie, H., (2019). Addressing weed management social dilemmas: A novel approach to bridge individual & collective interests. *Nature Plants*, 5, 343-351. <https://doi.org/10.1038/s41477-019-0395-y>
13. **Metcalf, A.L.**, Angle, J.W., Phelan, C.N., Muth, B.A., & Finley, J.C. (2019). More "bank" for the buck: Microtargeting and normative appeals to increase social marketing efficiency. *Social Marketing Quarterly*, 25(1), 26-39. <https://doi.org/10.1177/1524500418818063>
12. Graham, S., **Metcalf, A.L.**, Gill, N., Moreno, C., Bach, T. Ikutegbe, V., Hallstrom, L. Ma, Z, & Lubeck, A. (2019). Opportunities for better use of collective action theory in research and governance for invasive species management. *Conservation Biology*, 33(2), 275-287. <https://doi.org/10.1111/cobi.13266>
11. \*McIver, C., **Metcalf, A.L.**, & Berg, E. (2018). Procurement contracting and forest communities: Factors affecting local business utilization in the inland Northwest. *Journal of Forestry*, 116(5), 412-419. <https://doi.org/10.1093/jofore/fvy033>
10. \*Repke, M.A., Berry, M.S., Conway III, L.G., **Metcalf, A.L.**, Hansen, R, & Phelan, C. (2018). How does nature exposure make people healthier?: Experimental and non-experimental evidence for the role of impulsivity. *PLoS ONE*, 13(8), e0202246. <https://doi.org/10.1371/journal.pone.0202246>
9. \*Lauer, F.I., **Metcalf, A.L.**, Metcalf, E.C., & Mohr, J.J. (2018). Public engagement in social-ecological systems management: An application of social justice theory. *Society and Natural Resources*, 31(1), 4-20. <https://doi.org/10.1080/08941920.2017.1364456> (Note: Received the "Rabel J. Burdge & Donald R. Field Outstanding Article Award" for best general research article published in *SNR* Volume 31).
8. **Metcalf, A.L.**, Metcalf, E.C., Khumalo, K., Kujala, Q., Gude, J., & Lewis, M. (2017). Managing public wildlife on private lands: Reciprocity, species status, and stakeholders' normative beliefs. *Human Dimensions of Wildlife*, 22(6), 564-582. <https://doi.org/10.1080/10871209.2017.1372534>
7. Duvall, A., **Metcalf, A.L.**, & Coates, P.N. (2016). Conserving the Greater Sage-grouse: A social-ecological systems case study from the California-Nevada region. *Rangeland Ecology & Management*, 70(1), 129-140. <https://doi.org/10.1016/j.rama.2016.08.001>
6. Gruver, J.B., **Metcalf, A.L.**, Muth, B.A., Finley, J.C., & Luloff, A.E. (2016). Making decisions about forestland succession: Perspectives from Pennsylvania's private forest landowners. *Society and Natural Resources*, 30(1), 47-62. <https://doi.org/10.1080/08941920.2016.1180728>
5. \*Ver Planck, N.R., **Metcalf, A.L.**, Finley, A.O., & Finley, J.C. (2016). Evaluation of National Woodland Owner Survey estimators of private forest area and landowners: A case study of Montana. *Forest Science*, 62(5), 525-534. <https://doi.org/10.5849/forsci.15-196>
4. **Metcalf, A.L.**, Gruver, J.B., Finley, J.C., & Luloff, A.E. (2016). Segmentation to focus outreach: Behavioral intentions of private forest landowners in Pennsylvania. *Journal of Forestry*, 114(4), 466-473. <https://doi.org/10.5849/jof.15-030>
3. **Metcalf, A.L.**, Finley, J.C., Luloff, A.E., Shumway, D.L., & Stedman, R.C. (2014). Progress in private forest landowner estimation. *Journal of Forestry*, 112(3), 312-315. <https://doi.org/10.5849/jof.14-037>
2. **Metcalf, A.L.**, Finley, J.C., Luloff, A.E., Shumway, D.L., & Stedman, R.C. (2012). Private forest landowners: Estimating population parameters. *Journal of Forestry*, 110(7), 362-370. <https://doi.org/10.5849/jof.11-089>

1. Luloff, A.E., Finley, J.C., Myers, W.L., **Metcalf, A.L.**, Matarrita, D.C., Gruver, J.B., Gordon, J., & Raboanarialina, C. (2011). What do stakeholders add to identification of conservation lands? *Society and Natural Resources*, 24(12), 1345-1353. <https://doi.org/10.1080/08941920.2011.589098>

### **Other publications**

#### **Book chapters**

1. Metcalf, E.C., **Metcalf, A.L.**, and Mohr, J.J. (2017). "Building social capacity toward restoration success." In, S. Allison & S.D. Murphy (Eds.), *Routledge Handbook of Ecological and Environmental Restoration*. Routledge.

#### **Management & technical reports; non-refereed publications (not updated)**

28. **Metcalf, A.L.**, Hodge, H., and Davis, C. (2020). "Monitoring social outcomes of forest management in the southwester crown-of-the-continent." Research report submitted to the Southwestern Crown of the Continent Collaborative.
27. Costello, C., Nesbitt, H.K., **Metcalf, A.L.**, Metcalf, E.C., Roberts, L., Gude, J., Lewis, M. (2020). "Results of a 2020 survey of Montanans regarding the topic of grizzly bear management." Montana Fish Wildlife and Parks Research Summary, No. 47.
26. \*Nesbitt, H.K., **Metcalf, A.L.**, & Metcalf, E.C. (2020). "Human dimensions of grizzly bear management in Montana." Research report submitted to the Montana Department of Fish, Wildlife, and Parks.
25. \*Phelan, C.N. & **Metcalf, A.L.** (2019). Prime prospects: Social and Biophysical inventory of Pennsylvania conservation opportunities. Research report submitted to PA Department of Conservation and Natural Resources.
24. Lewis, M., **Metcalf, A.L.**, Metcalf, E.C., Phelan, C.N., Gude, J., Kujala, Q., & Inman, R. (2018). *Better understanding Montanans thoughts regarding wolf management in Montana*. Montana Fish Wildlife and Parks HD Unit Research Summary, No. 42.
23. \*Beckman, C., **Metcalf, A.L.**, & Lubeck, A. (2018). *Wildfire risk reduction: Landowners' perspectives and behaviors across Montana*. Summary of research results presented to Montana Natural Resources Collaborative Working Group. 6p.
22. \*Lubeck, A., & **Metcalf, A.L.** (2017). *Landowners' perspectives on weed control across Montana*. Summary of research results presented to Montana Natural Resources Collaborative Working Group. 6p.
21. \*Phelan, C., **Metcalf, A.L.**, & Metcalf, E.C. (2017). *Longitudinal change in wolf tolerance among MT residents*. An interim report to the MT FWP. 12p.
20. \*Phelan, C., & **Metcalf, A.L.** (2017). *Riparian buffers in the Pennsylvania Chesapeake Bay watershed*. An interim report to the PA DCNR and Mellon Foundation. 5p.
19. \*Phelan, C., & **Metcalf, A.L.** (2017). *Priority conservation areas in the Gallatin Valley*. Final report to the Gallatin Valley Land Trust. 44p.
18. \*McIver, C.P., **Metcalf, A.L.**, & Dodson, E. (2016). Making every dollar count: Leveraging federal investments in land management to benefit local communities. *Rural Connections* Fall: 21-24.
17. \*Lauer, F.I., Metcalf, E.C., **Metcalf, A.L.**, & Brown, J. (2016). *Understanding visitor experiences at the Upper Missouri River Breaks National Monument*. A report to the Bureau of Land Management. 12p.
16. **Metcalf, A.L.**, Finley, J.C., & Luloff, A.E. (2015). *Regional variation among Pennsylvania private forest landowners*. A report to the PA Dept. of Conservation and Natural Resources, Bureau of Forestry, Harrisburg, PA: 15p.
15. **Metcalf, A.L.**, Muth, B.A., Finley, J.C., & Luloff, A.E. (2015). *Gender, values, and behaviors of Pennsylvania private forest landowners*. A report to the PA Dept. of Conservation and Natural Resources, Bureau of Forestry, Harrisburg, PA: 9p.

14. **Metcalf, A.L.**, Metcalf, E.C., Kumalo, K., Gude, J., Kujala, Q., & Lewis, M. (2015). *Acceptability of Brucellosis and elk management tools among MT stakeholder groups*. A report to the MT Dept. of Fish, Wildlife, and Parks, Helena, MT: 7p.
13. \*Sketch, M., **Metcalf, A.L.**, & Davis, C. (2015). *Analysis of attendance at Southwestern Crown Collaborative Meetings*. A report to the Southwestern Crown of the Continent Collaborative Forest Landscape Restoration Program. 14p.
12. Metcalf, E.C., & **Metcalf, A.L.** (2014). *Visitor use and sense of place on the Blackfoot River, MT*. Final report for the Montana Dept. of Fish, Wildlife, and Parks, Region 2, Missoula, MT: 38p.
11. Gruver, J.B., **Metcalf, A.L.**, Finley, J.C., Luloff, A.E., & Muth, A.B. (2013). *The future of Penn's Woods: A mixed-methods study of parcelization and Pennsylvania's private forests*. Final report for the Pennsylvania Dept. of Conservation and Natural Resources, Bureau of Forestry, Harrisburg, PA: 73p.
10. **Metcalf, A.L.**, Metcalf, E.C., & Nickerson, N.P. (2012). *Behavioral Risk Factor Surveillance System: Outdoor recreation and resident health*. Final report for the Montana State Parks, Helena, MT: 44p.
9. **Metcalf, A.L.**, Finley, J.C., Luloff, A.E., & Muth, B.A. (2012). *Pennsylvania's private forests: 2010 private forest landowner summary*. Final report for the Pennsylvania Department of Conservation and Natural Resources, Bureau of Forestry, Harrisburg, PA: 42p.
8. Bitz, M., Metcalf, E.C., & **Metcalf, A.L.**. (2012). *Hunter perceptions of Montana's Block Management Program: A One Montana report*. Final report for One Montana, Bozeman, MT: 62p.
7. Bitz, M., Metcalf, E.C. & **Metcalf, A.L.**. (2012). *Landowner satisfaction with Montana's Block Management Program: A One Montana report*. Final report for One Montana, Bozeman, MT: 17p.
6. Kelsey, T.W., **Metcalf, A.L.**, & Salcedo, R. (2012). *Marcellus shale: Land ownership, local voice, and the distribution of lease and royalty dollars*. Penn State Center for Economic and Community Development. University Park, PA: 15p.
5. **Metcalf, A.L.** & Finley, J.C. (2011). *Social and biophysical constraints to timber availability in 25 Pennsylvania Counties*. Final report for the Pennsylvania Hardwood Development Council, Harrisburg, PA: 73pp.
4. **Metcalf, A.L.**, & Johnson, D.L. (2010). *Wood product's market analysis: Huntingdon, County, PA*. Final report for the Huntingdon County Business and Industry and the Juniata Center for Entrepreneurial Leadership, Huntingdon, PA: 27pp.
3. **Metcalf, A.L.**, Finley, J.C., Luloff, A.E., & Stedman, R.C. (2008). *Pennsylvania's private forest landowners: Results from a statewide survey*. Final report for the Pennsylvania Department of Conservation and Natural Resources, Bureau of Forestry, Harrisburg, PA: 53 pp.
2. **Metcalf, A.L.**, Finley, J.C., & Johnson, D.L. (2007). *Timber availability assessment for Berks and Huntingdon counties, PA*. Final report for the Pennsylvania Hardwood Development Council, Harrisburg, PA: 23 pp.
1. Luloff, A.E., Finley, J.C., Myers, W.L., **Metcalf, A.L.**, Matarrita, D.C., Gruver, J.B., & Raboanarialina, C. (2007). *The Pennsylvania Highlands: Phase I final report*. Final report for the USDA Forest Service, Milford, PA: 46 pp.

#### RESEARCH SUPPORT

29. **Metcalf, A. L.**, & Metcalf, E. C. (2022). Human dimensions of wolves in the northern Rockies from 2013 to 2023. Montana Department of Fish, Wildlife, and Parks. **\$275,000** FY2022-24
28. Dobrowski, S., Higuera., P., **Metcalf, A. L.**, Davis, K., Littlefield, C., Kemp, K., Parks, S., & Crausbay, S. (2021). *Informing decision to resist, accept, or direct post-fire vegetation transitions*. USGS North Central Climate Adaptation Science Center. **\$349,068** FY2022-24
27. Graves, D.M., Wells, J., Burnham, M., Williamson, M.A., Epstein, K., & **Metcalf, A.L.** (2021). *The (emotional) tragedies of environmental conflict: A rural risk and well-being assessment in two acts*. NSF EPSCoR Idaho Seed Funding Opportunity #3. **\$70,844**. FY2022.

26. Twidell, D., Allen, C.R., Banerjee, S., Chaffin, B.C., & Floyd, T.M., with **Metcalf, A.L.** and Allred, B. as senior personnel. (2019). RII Track-2 FEC: *Resilience informatics for the convergence of critical capacities to address regional-scale environmental change*. NSF 18-589 OIA EPSCoR Research Infrastructure. **\$3,953,265**. FY2019-2024.
25. **Metcalf, A.L.** & Hand, M. (2019). Increasing homeowner participation in wildfire risk assessments. *Rocky Mountain Research Station and Montana Department of Natural Resources and Conservation*. **\$45,826**. FY2019-2020.
24. **Metcalf, A.L.** & Metcalf, E.C. (2019). Human dimensions of grizzly bear management. *Montana Department of Fish Wildlife and Parks*. **\$25,307**. FY2019-2020.
23. **Metcalf, A.L.**, Birt, N., Ehrhart, M., and Angle, J. (2018). Agricultural behavior change for conservation: A watershed wide approach. *National Fish and Wildlife*. **\$999,942**. FY2019-2021
22. **Metcalf, A.L.**, Metcalf, E.C., Clarke, L., Higuera, P., McWethy, D., & Miller, C. (2018). Co-production of management alternatives to promote social-ecological resilience in fire-prone landscapes. *Aldo Leopold Wilderness Institute*. **\$20,000**. FY2018-2020.
21. Proffit, K., Mowry, R., Jourdonnais, C., Ramsey, Mitchell, M., Metcalf, E.C., & **Metcalf, A.L.** (2018). Effects of changes in travel management and hunter access on elk distributions in the northern Sapphire Mountains. *MPG Ranch*. **\$155,000** as part of \$425,000. FY2019-2020
20. **Metcalf, A.L.** (2017). Socio-economic monitoring, data analysis. *Southwest Crown of the Continent Collaborative Forest Landscape Restoration Program*. **\$5,677** supplemental. FY2018-2020.
19. Stark, T., Keefer, M., & **Metcalf, A.L.** (2017). Efficiency in natural resource extension: Riparian buffers in the Chesapeake Bay Watershed, Pennsylvania. *National Fish and Wildlife Federation* **\$50,000** as part of \$750,000. FY2018-2020
18. **Metcalf, A.L.** (2017). Priority conservation areas: Spatial analysis of the Gallatin Valley, MT. *Gallatin Valley Land Trust*. **\$4,750**. FY2017
17. Dayer, A., & **Metcalf, A.L.** (2017). Human dimensions of working wet meadow conservation. *Intermountain West Joint Venture*. **\$5,735** as part of \$50,000. FY2017-2018.
16. **Metcalf, A.L.** & Metcalf, E.C. (2017). Longitudinal attitude change among MT residents toward wolves. *MT Fish Wildlife and Parks*. **\$14,426**. FY2017-2018
15. **Metcalf A.L.**, Muth, B.A., & Finley, J.C. (2016). Expanding riparian buffer installation in Pennsylvania: Prime prospect outreach to private landowners. *Mellon Foundation*. **\$25,000**. FY2017-2019.
14. **Metcalf A.L.**, Muth, B.A., & Finley, J.C. (2016). Expanding riparian buffer installation in Pennsylvania: Prime prospect outreach to private landowners. *PA Dept. of Conservation and Natural Resources*. **\$50,000**. FY2016-2018.
13. **Metcalf A.L.** Improving outreach and enhancing stewardship on MT private lands. (2015). *MT Natural Resources Collaborative Working Group*. **\$37,000**. FY2016-2017.
12. Higuera, P., **Metcalf, A.L.**, Metcalf, E.C., McWethy, D., & Miller, C. (2015). Identifying ecological and social resilience in fire-prone landscapes. *Joint Fire Science Program*. **\$290,560** FY2016-2018.
11. **Metcalf, A.L.** (2015). Socio-economic monitoring of community members and stakeholders. *Southwest Crown of the Continent Collaborative Forest Landscape Restoration Program*. **\$46,000**. FY2015-2016.
10. Metcalf, E.C. & **Metcalf, A.L.** (2015). Quantitative assessment of visitor experiences at the Upper Missouri River Breaks National Monument. *US Bureau of Land Management*. **\$15,000**. FY2015-FY2016.
9. **Metcalf, A.L.** & Anderson, N.M. (2015). Social science support for: Integration of biofuels and bio-products production into forest products supply chains using modular biomass gasification and carbon activation. *US Department of Agriculture, Forest Service, Rocky Mountain Research Station*. **\$170,000**. FY2014-2015. **\$62,845** modification. FY2016-2017.
8. **Metcalf A.L.** & Metcalf, E.C. (2014). Resident, hunter, and landowner attitudes toward elk management in areas with Brucellosis. *Montana Fish, Wildlife, and Parks, Wildlife Division*. **\$19,000**. FY2014

7. Metcalf, E.C. & **Metcalf, A.L.** (2014). Understanding visitor experiences at the Upper Missouri River Breaks National Monument, a qualitative investigation. *US Bureau of Land Management*. **\$13,500**. FY2014.
6. **Metcalf, A.L.**, Nickerson, N., & Metcalf, E.C. (2013). Behavioral risk factor surveillance system (as part of the MT State Comprehensive Outdoor Recreation Plan). *Montana Fish, Wildlife, and Parks, State Parks Division*. **\$9,800**, as part of \$44,550. FY2013
5. Metcalf, E.C. & **Metcalf, A.L.** (2012). Recreational use survey: Blackfoot and Bitterroot Rivers. *Montana Fish, Wildlife, and Parks, Region 2*. **\$15,000**. FY2013.
4. Finley, J.C., Luloff, A.E., & **Metcalf, A.L.** (2011). Parcelization and the future of Penn's Woods. *Pennsylvania Department of Conservation and Natural Resources*. **\$130,000**. FY2011-2012
3. Johnson, D.L. & **Metcalf, A.L.** (2010). Wood products analysis for Huntingdon County, PA. *Huntingdon County Business and Industry*. **\$4,000**. FY2010.
2. Finley, J.C. & **Metcalf, A.L.** (2009). Timber availability assessment: Expanded analysis. *Pennsylvania Hardwood Development Council*. **\$25,000**. FY2009.
1. Finley, J.C. & **Metcalf, A.L.** (2008). Pilot study: Timber availability in PA counties. *Pennsylvania Hardwood Development Council*. **\$5,000**. FY2009.

#### PRESENTATIONS

\* indicates graduate student as lead author

##### Invited presentations

36. Trans-Atlantic Wildlife Management Conference. *Tolerance typologies of attitudes toward wolf management and conservation*. May, 2022. Yellowstone National Park (via Zoom).
35. National Fish and Wildlife Foundation Long Island Sound Collaborative. *Prime prospect approaches for water quality*. April, 2022. New York, NY (via Zoom).
38. Grizzly Bear Coalition. *Human dimensions of grizzly bear management and conservation*. March, 2022. Yellowstone National Park (via Zoom).
37. Montana DCNR Fire Adapted Learning Network. *Fire adapted communities*. July, 2021. (Zoom webinar)
36. USGS Science Webinar. *Human dimensions of climate change*. May, 2021. (Zoom webinar).
35. University of Montana Wildlife Leadership Council. *Human dimensions of grizzly bear conservation*. April, 2021. Missoula, MT.
34. W.A. Franke College of Forestry and Conservation, Department of Society and Conservation, Conservation Social Science Seminar. *Data analytics to improve conservation planning and implementation*. Feb. 16, 2021. Missoula, MT (via Zoom).
33. National Fish and Wildlife Foundation Agriculture Network Forum. *Microtargeting for conservation agriculture: The Prime Prospect approach*. Feb. 10, 2021. Richmond, VA (via Zoom).
32. California Delta Science Task Force. *Microtargeting for Conservation*. July 24, 2019. Davis, CA.
31. University of Montana Lecture at the Food, Water, Energy Nexus. *Science & Practice: Water & Resilience*. April 4, 2019. Co-panelists: Nancy Grimm, Brian Chaffin, Lisa Eby. Missoula, MT.
30. USDA Forest Service Rocky Mountain Research Station Spring Seminar. *Big data to prioritize outreach*. Co-presenters: Joe St. Peter & Conor Phelan. Missoula, MT.
29. 2018 All-Bay Agriculture Network Forum: Improving local waters while restoring the Chesapeake Bay. *Innovations to accelerate riparian forest buffer implementation*. Dec. 4, 2018. Co-presenters: Nate Birt & Conor Phelan. Lancaster, PA.

28. University of Montana College of Business Brownbag Lecture Series. *More "bank" for the buck: Microtargeting and normative appeals to increase social marketing efficiency*. Nov. 16, 2018. Co-presenter: Justin Angle. Missoula, MT.
27. Montana State University Ecology Lecture Series. *Human dimensions of wildlife in Montana: Attitudes, acceptability, and tolerance*. Nov. 8, 2018. Co-presenter: E.C. Metcalf. Bozeman, MT
26. National Fish and Wildlife Foundation Webinar Series. *Agricultural behavior change for conservation: A watershed-wide approach*. Nov. 6, 2018. (Online webinar)
25. USDA Forest Service, Regional Leadership Team (Region 1). July 17, 2018. *CFLRP social monitoring strategy and program*. Co-presenter: Alice Lubeck. Missoula, MT.
24. Intermountain West Joint Venture. July 10, 2018. *The human dimensions of conserving working wet meadow habitats in Sage Steppe landscapes*. Co-presenters: Mary Sketch and Ashley Dayer. Missoula, MT.
23. Richard K. Mellon Foundation & National Fish and Wildlife Foundation. March 23, 2018. *Using consumer data to target conservation efforts*. Harrisburg, PA.
22. University of Montana, W.A. Franke College of Forestry and Conservation, Department of Society and Conservation. March 21, 2018. *Big data, behavioral science, and the marketing future of conservation*. Missoula, MT.
21. Pennsylvania Forest Buffer Summit. February 28, 2018. *Prime prospects: Prioritizing private riparian buffer restoration*. State College, PA.
20. Penn State University, Department of Ecosystem Science and Management. August 24, 2017. *Science for stewardship: Powering extension with conservation social science*. University Park, PA.
19. Chesapeake Bay Watershed Forested Riparian Buffer Advisory Committee. August 3, 2017. *Social-ecological landscape inventory and prime prospect analysis*. Harrisburg, PA.
18. Chesapeake Riparian Buffer Networking Forum. March 2-3, 2017. *Identifying "prime prospect" private landowners for riparian buffer restoration*. Adamstown, MD.
17. Chesapeake Conservancy. January 11, 2017. *Human dimensions of riparian buffer restoration*. Mill Hall, PA.
16. Brucellosis research group. September 24, 2015. *Human dimensions of brucellosis management*. Jackson, WY.
15. South Dakota Game, Fish, and Parks Leadership Program. July 20, 2015. *Successful public engagement in wildlife management (full day workshop)*. Pierre, SD.
14. Montana Brucellosis Working Group Meeting. July 16, 2015. *Acceptability of brucellosis management tools for elk among Montana stakeholder groups*. Co-presenter: Elizabeth C. Metcalf. Bozeman, MT.
13. Montana Fish, Wildlife, and Parks Commission. November 13, 2014. *Attitudes toward Brucellosis management tools among hunters, landowners, and general residents*. Helena, MT.
12. Montana Natural Resources Collaborative Working Group. January 21, 2014. *The role of stakeholders' values in building stronger partnerships*. Missoula, MT.
11. University of Montana, Department of Society and Conservation. February 2012. *Recreational access to private lands: Keystone lessons in Big Sky Country*. Missoula, MT.
10. University of Vermont Rubenstein School of the Environment. May 14, 2012. *Forestry extension: Partnerships enabling stewardship*. Burlington, VT.
9. Pennsylvania Hardwood Development Council and the PA Secretary of Agriculture Redding. November 2010. *Social and biophysical constraints to timber availability in 25 Pennsylvania counties*. State College, PA.
8. Pennsylvania Forest Steward Annual Meeting. July 2010. *Human dimensions of Pennsylvania private forests: Opportunities for conservation*. Rock Springs, PA.
7. Pennsylvania Forest Steward Annual Meeting. July 2010. *Planning the future forests of Pennsylvania*. Rock Springs, PA.
6. Huntingdon County Business and Industry and Juniata Center for Entrepreneurial Leadership. May 2010. *Wood products market opportunities*. Huntingdon, PA.



5. Allegheny Chapter of the Society of American Foresters. February 2009. *Landowner perspectives*. State College, PA.
4. Juniata College Summer Speaker Series. July 2008. *Social perspectives on natural resource issues and research*. Huntingdon, PA.
3. PA DCNR Bureau of Forestry Cooperative Forest Management Annual Meeting. January 2008. *Results from a statewide survey of private forest landowners*. Carlisle, PA.
2. Pennsylvania Joint Legislative Forestry Task Force. October 2006. *Exploring private forest landowners of Pennsylvania*. State College, PA.
1. Pennsylvania Forest Steward Annual Meeting. August 2006. *Private forest ownership in Pennsylvania*. University Park, PA.

**Presentations at conferences and professional meetings (oral unless otherwise noted) (not updated)**

65. \*Cummins, T., Metcalf, A.L. (2022). *Conflicting social identities key to conservation agriculture adoption*. Virtual talk at Soil and Water Conservation Society Annual Conference. Denver, CO. July 31-Aug. 3.
64. \*Nesbitt, H.K., Gulab, S., Floyd, T., Chaffin, B.C., Metcalf, A.L., Banarjee, S., & Allen, C.R. (2022). *Social network drivers of adaptive behaviors in agricultural producers in the American Great Plain*. Virtual talk at North American Congress for Conservation Biology. Reno, NV. July 18.
63. \*Nesbitt, H.K., Gulab, S., Floyd, T., Chaffin, B.C., Metcalf, A.L., Banarjee, S., & Allen, C.R. (2022). *Social networks and adaptive behavior in agricultural producers in the American Great Plains*. Virtual talk at Sunbelt, Cairns, Australia. July 12.
62. \*Smith, A.P., Metcalf, A.L., Cummins, T., Metcalf, E.C. (2022). *What does 'sustainable beef' mean to you? An examination of US beef producers' perspectives*. Agriculture, Food, and Human Values Society Conference, Athens, GA. May 18-21.
61. \*Smith, A.P., Metcalf, A.L., Cummins, T., Metcalf, E.C. (2022). *Confidence, community, and conservation: Exploring the relationship between self-efficacy and experience in female hunters*. National Environmental and Recreation Research Symposium. Annapolis, MD. April 3-5.
60. \*Nesbitt, H.K., Gulab, S., Floyd, T., Chaffin, B.C., Metcalf, A.L., Banarjee, S., & Allen, C.R. (2021). *Adaptive capacity & behavior of agricultural producers in a grassland social-ecological system: A social network approach*. Virtual talk at American Geophysical Union Annual Meeting, New Orleans, LA. Dec. 15.
59. \*Nesbitt, H.K., Gulab, S., Floyd, T., Chaffin, B.C., Metcalf, A.L., Banarjee, S., & Allen, C.R. (2021). *Adaptive capacity of agricultural producers in a grassland social-ecological system: A social network approach*. Ecological Society of America Annual Meeting. Virtual: August 2-6.
58. \*Smith, A., Metcalf, E.C., **Metcalf, A.L.**, Nesbitt, H.K., Moore, M., & Cummins, T. (2020). *Exploring the continuum of public engagement in conservation science: Responsibility, relationships, and "life" beyond the manuscript*. Interactive Session. North American Congress for Conservation Biology. Virtual: July 27-31.
57. \*Cummins, T., **Metcalf, A.L.**, Angle, J., Slattery, D., Chandler, J., Rayburn, K., & Ehrhart, M. (2020). *Understanding conservation adoption on farms in the Chesapeake Bay Watershed*. North American Congress for Conservation Biology. Virtual: July 27-31.
56. \*Leonard, H., **Metcalf, A.L.**, Angle, J., Chandler, J., & Bender, N. (2020). *A systematic mapping of conservation marketing research to date*. North American Congress for Conservation Biology. Virtual: July 27-31.
55. \*Nesbitt, H.K., **Metcalf, A.L.**, Metcalf, E.C., Lubeck, A.A., & Beckman, C. (2020). *Collective factors drive individual contributions to wildlife coexistence*. North American Congress for Conservation Biology. Virtual: July 27-31.
54. Miller, C., McWethy, D., Higuera, P., Metcalf, E.C., Clarke, L., **Metcalf, A.L.** (2019). *Demystifying resilience to wildfire*. Association for Fire Ecology 8th International Fire Ecology and Management Congress, Tuscon, AZ.
53. St. Peter, J., Phelan, N., & **Metcalf, A.L.** 2019. *Big data to prioritize restoration outreach*. Montana Association of Geospatial Information Professionals Annual Meeting, Butte, America.

52. Glikman, J.A., **Metcalf, A.L.**, Sponarski, C., Frank, B., Metcalf, E.C., Lecuyer, M.L., & Ruppert, K. (2018). *Coexistence, tolerance, or acceptance?: Understanding and defining positive human-wildlife interaction – an interactive session*. North American Congress for Conservation Biology. Toronto, CA: July 21-26.
51. \*Phelan, C.N., **Metcalf, A.L.**, & Pallai, C. (2018). *Social-ecological landscape prioritization: Orienting conservation toward important places and likely partners*. North American Congress for Conservation Biology. Toronto, CA: July 21-26.
50. \*Phelan, C.N., **Metcalf, A.L.**, & Pallai, C. (2018). *A coupled social and ecological approach to prioritizing conservation at the property level and landscape extent*. 24<sup>th</sup> International Symposium on Society and Resource Management. Salt Lake City, UT: June 17-21.
49. \*Phillippe, C., Metcalf, E.C., **Metcalf, A.L.**, Higuera, P., Miller, C., McWethy, D., & Rafferty, R. (2018). *Social-ecological resilience to wildfire: Perspectives from fire-affected communities*. 24<sup>th</sup> International Symposium on Society and Resource Management. Salt Lake City, UT: June 17-21.
48. \*Sketch, M., Dayer, A., & **Metcalf, A.L.** (2018). *Western rancher perspectives on social-ecological services provided by flood irrigation*. 24<sup>th</sup> International Symposium on Society and Resource Management. Salt Lake City, UT: June 17-21.
47. \*Lubeck, A., **Metcalf, A.L.**, & Beckman, C. (2018). *The collective interest behind independent behavior: Quantifying a cross-boundary model of invasive species control in a complex ownership mosaic*. 24<sup>th</sup> International Symposium on Society and Resource Management. Salt Lake City, UT: June 17-21.
46. Higuera, P., **Metcalf, A.L.**, Metcalf, E.C., McWethy, D., and Miller, C. (2018). *The value in resilience: Integrating objective and subjective dimensions of resilience in fire-prone landscapes*. The Fire Continuum Conference, Missoula, MT: May 21-24.
45. Metcalf, E.C., Metcalf, A.L., Higuera, P., McWethy, D., and Miller, C. (2018). *Social resilience to wildfire: Perspectives from fire-affected communities*. The Fire Continuum Conference, Missoula, MT: May 21-24.
44. Metcalf, E.C., Mohr, J.J., **Metcalf, A.L.**, and Lauer, F.I. (2017). *Understanding the human dimensions of river restoration: Evidence from the Clark Fork River, MT*. Ecological Society of America Annual Meeting, Portland, OR: August 6-11.
43. \*McIver, C., **Metcalf, A.L.**, and Dodson, E. (2016). *CFLRP and the mediating influence of federal contract regulations on benefit to local communities*. Society of American Foresters National Convention, Madison, WI: Nov. 2-6.
42. \*Ver Plank, N., **Metcalf, A.L.**, Finley, A.O., & Finley, J.C. (2016). *Evaluation of the National Woodland Owner Survey estimators for private forest area and landowners*. Society of American Foresters National Convention, Madison, WI: Nov. 2-6.
41. Muth, B.A., **Metcalf, A.L.**, and Subjin, A. (2016). *Women in the woods*. Society of American Foresters National Convention, Madison, WI: Nov. 2-6.
40. \*Battaglia, B., Fredenberg, W., **Metcalf, A.L.**, Eby, L., & Metcalf, E.C. (2016). *A proactive approach to mitigating angler bycatch concerns for Bull Trout in Montana*. The *Salvelinus confluentus* Curiosity Society. Sula, MT: August 4-6.
39. \*Lauer, F.I., **Metcalf, A.L.**, Metcalf, E.C., & Mohr, J.J. (2016). *Engaging stakeholders to build resilience: Social justice drivers of restoration success*. (Poster). 22<sup>nd</sup> International Symposium on Society and Resource Management. Houghton, MI: June 22-26.
38. Essen, M., **Metcalf, A.L.**, and Anderson, N. (2016). *A new era of forest planning: Science and the importance of social networks*. (Presentation). 22<sup>nd</sup> International Symposium on Society and Resource Management. Houghton, MI: June 22-26.
37. **Metcalf, A.L.**, E.C. Metcalf, K. Kumalo, J. Gude, Q. Kujala, and M. Lewis. (2016). *Public recreation and wildlife on private lands: Reciprocity and vulnerability shape normative beliefs*. National Environmental and Recreation Research Symposium, Annapolis, MD: April 2-4.

36. Metcalf, E.C., F.I. Lauer, and **Metcalf, A.L.** (2016). *Scenes of visionary enchantment: Recreation management at the Missouri River Breaks National Monument*. National Environmental and Recreation Research Symposium, Annapolis, MD: April 2-4.
35. \*Lauer, F.I., **Metcalf, A.L.**, and C. Davis. (2015). *Collaborative outcomes: Social monitoring in the Southwest Crown of the Continent Collaborative Forest Landscape Restoration Program*. (Poster). 6<sup>th</sup> Roundtable on the Crown of the Continent Conference. Missoula, MT: Sept. 16-18.
34. Essen, M., **Metcalf, A.L.**, and N. Anderson. (2015). *Social networks matter: Connecting forest planning to social ecological science*. (Poster). 6<sup>th</sup> Roundtable on the Crown of the Continent Conference. Missoula, MT: Sept. 16-18.
33. **Metcalf, A.L.**, J.C. Finley, A.E. Luloff, and T. Beckley. (2014). *Can parcelization of forestland play a role in preserving private forests?* 20<sup>th</sup> International Symposium on Society and Resource Management. Hannover, Germany: June 9-13.
32. **Metcalf, A.L.** and E.C. Metcalf. (2014). *Squeaky wheels?: Comment cards and visitor intercept surveys – Big Blackfoot River, MT*. The 26<sup>th</sup> National Environmental and Recreation Research Symposium. Cooperstown, NY: April 6-8.
31. **Metcalf, A.L.**, Metcalf, E.C., Lewis, M., Kujala, Q., Gude, J., & Mitchell, M. (2014). Will Fences Make Good Neighbors? Quantifying Acceptability of Brucellosis Management Seroprevalence Reduction in the Southern Greater Yellowstone Ecosystem. The Pathways to Success Conference: Integrating Human Dimensions into Fish and Wildlife Management Estes Park, CO. Oct. 5th-9th.
30. Metcalf, E. Covelli and **Metcalf, A.L.** (2014). *A river runs through it: Understanding place attachment on the Blackfoot River, Montana*. The 26<sup>th</sup> Northeastern Recreation Research Symposium. Cooperstown, NY: April 6-8.
29. Metcalf, E. C., **Metcalf, A.L.**, Lewis, M., Kujala, Q., Gude, J., & Mitchell, M. (2014). From the Ground Up: A collaborative Approach for Understanding the Social Landscape of Elk and Cattle Brucellosis Management in the Greater Yellowstone Ecosystem. The Pathways to Success Conference: Integrating Human Dimensions into Fish and Wildlife Management Estes Park, CO. Oct. 5th-9th.
28. Lewis, M., Kujala, Q., Gude, J., Charles, A., Weigand, J., Messer, A., Podruzny, K., Metcalf, E. C., & **Metcalf, A.L.** (2014). Private Lands, Public Wildlife: Comparing and Contrasting resident Hunter and Private Landowner Data and Thoughts regarding Hunting Access in Montana. The Pathways to Success Conference: Integrating Human Dimensions into Fish and Wildlife Management Estes Park, CO. Oct. 5th-9<sup>th</sup>.
27. **Metcalf, A.L.**, J.C. Finley, A.E. Luloff, A.B. Muth, and J.B. Gruver. (2013). *Conservation and conservatism: Promoting stewardship among private forest landowners*. 19<sup>th</sup> International Symposium on Society and Resource Management. Estes Park, CO: June 4-8.
26. Finley, J.C., **Metcalf, A.L.**, J.B. Gruver, A.B. Muth, and A.E. Luloff. (2013). Addressing forest parcelization through legacy planning. Society of American Foresters National Conference. Charleston, SCL October 26.
25. Finley, J.C., A.B. Muth, A.E. Luloff, **Metcalf, A.L.**, and J.B. Gruver. (2013). *Private forests and landowners of Pennsylvania*. Galaxy Conference. Pittsburgh, PA: Sept. 18.
24. **Metcalf, A.L.**, J.C. Finley, A.E. Luloff, R.C. Stedman, and D.L. Shumway. (2012). *Sampling and estimation of private forest landowners*. 18<sup>th</sup> International Symposium on Society and Resource Management. Edmonton, Canada: June 17-21.
23. **Metcalf, A.L.**, J.C. Finley, A.E. Luloff, R.C. Stedman, and D.L. Shumway. (2011). *Sampling and estimation of private forest landowner populations*. 17<sup>th</sup> International Symposium on Society and Resource Management. Madison, WI: June 5-9.
22. **Metcalf, A.L.** and E.A. Covelli. (2011). *Recreation to stewardship: using owner interests to encourage sound management of private forests*. The 23<sup>rd</sup> Northeastern Recreation Research Symposium. Bolton Landing, NY: April 10-12.

21. **Metcalf, A.L.**, J.C. Finley, and A.E. Luloff. (2010). *Commercial harvesting decision among private forest landowners: perceptions, parcelization, and predicting supply*. 16<sup>th</sup> International Symposium on Society and Resource Management. Corpus Christi, TX: June 6-10.
20. **Metcalf, A.L.**, J.C. Finley, A.E., Luloff, and R.C. Stedman. (2009). *Shifting the discussion toward recreation: Outreach opportunities with private forest landowners*. Northeastern Recreation Research Symposium. Bolton Landing, NY: March 29-31.
19. Finley, J.C., A.E. Luloff, and **Metcalf, A.L.** (2009). *Forest biomass and energy: The role of social science in addressing supply side questions*. 15<sup>th</sup> International Symposium on Society and Resource Management. Vienna, Austria: July 6-8.
18. Longmire, C.L., **Metcalf, A.L.**, A.E. Luloff, and J.C. Finley. (2009). *Exploring the spatial context for harvesting non-timber forest products on Pennsylvania private forestlands*. 15<sup>th</sup> International Symposium on Society and Resource Management. Vienna, Austria: July 6-8.
17. Covelli, E.A., A.R. Graefe, **Metcalf, A.L.**, and D.B.K. English. (2009). *Spatial analysis of use patterns on the Tiadaghton and Tioga state forests, Pennsylvania*. Northeastern Recreation Research Symposium. Bolton Landing, NY: March 29-31.
16. **Metcalf, A.L.**, J.C. Finley, A.E. Luloff, and R.C. Stedman. (2008). *Where's the wood?: A spatial assessment of biophysical and social constraints on timber access in suburban and rural Pennsylvania*. 14<sup>th</sup> International Symposium on Society and Resource Management. Burlington, VT: June 9-14.
15. **Metcalf, A.L.** (2008). *Recreation as a catalyst for cooperation among private forest landowners*. 20<sup>th</sup> Northeastern Recreation Research Symposium. Bolton Landing, NY: March 30 – April 1
14. Gruver, J., J.C. Finley, A.E. Luloff, and **Metcalf, A.L.**. (2008). *Forest parcelization and the future of Penn's Woods*. 14<sup>th</sup> International Symposium on Society and Resource Management. Burlington, VT: June 9-14.
13. Stedman, R.C., **Metcalf, A.L.**, J.C. Finley, and A.E. Luloff. (2008). *In the eye of the beholder: comparing landowner and forester perspectives on forest health and sustainability*. 14<sup>th</sup> International Symposium on Society and Resource Management. Burlington, VT: June 9-14
12. Finley, J.C., **Metcalf, A.L.**, A.E. Luloff, and R.C. Stedman. (2008). *Estimating the population of private forest landowners in Pennsylvania: Implications for outreach, management, and stewardship of private forestlands*. 14<sup>th</sup> International Symposium on Society and Resource Management. Burlington, VT: June 9-14.
11. Muth, A.B., **Metcalf, A.L.**, J.B. Gruver, and J.C. Finley. (2008). *Putting people in a natural resource management curriculum: Facilitating natural resources decision course*. 14<sup>th</sup> International Symposium on Society and Resource Management. Burlington, VT: June 9-14.
10. Longmire, C., J.C. Finley, A.E. Luloff, and **Metcalf, A.L.**. (2008). *Cross-boundary cooperation among private forest landowners: A comparison of survey results from Pennsylvania and Tennessee*. 14<sup>th</sup> International Symposium on Society and Resource Management. Burlington, VT: June 9-14.
9. **Metcalf, A.L.**, J.C. Finley, A.E. Luloff, and R.C. Stedman. (2007). *Exploring the private forestlands of Pennsylvania: Methodology for a statewide survey of private forestland and landowners*. 13<sup>th</sup> International Symposium on Society and Resource Management. Park City, Utah: June 17-21.
8. **Metcalf, A.L.** 2007. *Exploring Pennsylvania forestlands: Recreational perspectives of private forest landowners*. 19<sup>th</sup> Northeastern Recreation Research Symposium. Bolton Landing, NY: April 15-17.
7. Finley, J.C., **Metcalf, A.L.**, A.E. Luloff, and R.C. Stedman. (2007). *Private forest landowners: Revisiting our "myth-perceptions."* 13<sup>th</sup> International Symposium on Society and Resource Management. Park City, Utah: June 17-21.
6. Stedman, R.C., **Metcalf, A.L.**, A.E. Luloff, and J.C. Finley. (2007). *Working together?: Neighboring behaviors among Pennsylvania's private forest landowners*. 13<sup>th</sup> International Symposium on Society and Resource Management. Park City, Utah: June 17-21.
5. Luloff, A.E., **Metcalf, A.L.**, and J.C. Finley. (2007). *Measuring and comparing the public's and scientists' perspectives on conservation values*. 13<sup>th</sup> International Symposium on Society and Resource Management. Park City, Utah: June 17-21.

4. Gruver, J.B., J.C. Finley, A.E. Luloff, and **Metcalf, A.L.** (2007). *Guiding public concern for water resource issues toward engagement*. 13<sup>th</sup> International Symposium on Society and Resource Management. Park City, Utah: June 17-21.
3. **Metcalf A.L.**, J.C. Finley, A.E. Luloff, and R. Stedman. (2006). *Exploring private forest landowners of Pennsylvania*. Society of American Foresters National Conference. Pittsburgh, PA: October 25-29.
2. **Metcalf A.L.**, J.C. Finley, and A.E. Luloff. (2006). *Mapping conservation values in the Pennsylvania Highlands*. 12<sup>th</sup> International Symposium on Society and Resource Management. Vancouver, BC, Canada: June 3-8.
1. **Metcalf A.L.**, and D.L. Johnson. (2001). *Enhanced floodplain mapping: GIS-based correction of DFIRM maps in Mifflin County, PA*. Stormwater and Floodplain Managers Annual Conference. Charlotte, NC: May 21-25.

#### GRADUATE STUDENT SUPERVISION

##### Supervised

###### Continuing

9. Edmo, Kenneth. M.S. Resource Conservation <expected graduation Fall 2022>
8. Cummins, Tina. PhD. Forestry & Conservation Sciences <expected graduation Fall 2023>
7. Holly Nesbitt, Ph.D., Forestry & Conservation Sciences <expected graduation Fall 2022>

###### Completed

6. Nathan Bender, Joint M.S. in Resource Conservation & MBA. 2022. *Conservation marketing & climate action*
5. Leonard, Hannah. M.S. Resource Conservation. 2021. *Conservation marketing & easement microtargeting*.
4. Clarke, Lily. M.S. Systems Ecology. 2020. *Community resilience to wildfire*.
3. Daniel Pendergraph, M.S. Resource Conservation. 2019. *Contamination in wilderness waterways*.
2. Lubeck, Alice. M.S. Resource Conservation. 2018. *Weed control as a collective action problem*.
1. Lauer, Frederick. M.S. Systems Ecology. 2017. *Social justice in social-ecological systems management*.

##### Committee membership

###### Continuing

21. Chelle Terwillinger. Ph.D. Forestry & Conservation Sciences (advisor: E.Metcalf). *Team science*
20. Peter Whitney, M.S. Parks, Tourism, Recreation Management (advisor: W.Rice). *Rec. behavior*
19. Madeline Damon, M.S. Resource Conservation. (advisor: E.Metcalf). *Gender bias in conservation science*
18. Megan Moore, Ph.D. Forestry & Conservation Sciences. (advisor: E.Metcalf). *Community memory*.
17. Smith, Ada, Ph.D. Forestry & Conservation Sciences. (advisor: E.Metcalf). *Rangeland adaptive capacity*.

###### Completed

16. Taylor Mudford, M.S. Resource Conservation. (advisor: J.Thomsen). *Collaborative resource management*.
15. Offer, Joseph, M.S. Geography. (advisor: D.Shively). *Private lands conservation*.
14. Hodge, Haley, M.S. 2020. Resource Conservation. (advisor: E.Metcalf). *Wildfire management*.
13. Wilson, Hannah, M.S. 2020. Resource Conservation. (advisor: L.Yung). *Collaborative conservation*.
12. Halm, Sara, M.S. 2020. Human Dimensions of Wildlife. (advisor: M.Burnham, ISU). *Grizzly bear conflict*.
11. Henderson, Charles. Ph.D. 2019. Wildlife Biology. (advisor: P.Lukacs). *Wildlife decision support*.
10. Sketch, Mary. M.S. 2018. Wildlife Conservation. (advisor: A.Dayer, VTech). *HD of wildlife*.
9. Koller, Craig. M.A. 2018. Geography. (advisor: D. Shively). *Coordinating US cadastral geospatial data*.
8. Datta, Amber. M.S. 2018. Resource Conservation, ICD. (advisor: B.Chaffin). *Fisheries governance*.
7. Madison, Nagle, M.S. 2018. Economics. (advisor: M.Taylor). *Wildfire risk perception and behaviors*.
6. Beckman, Crystal. 2017. Masters of Public Admin. (advisor: E.Shanahan, MSU). *Wildfire behaviors*.
5. Hennes, Verena. 2016. M.S. Geography. (advisor: U.Kamp). *Conservation history: Swan & Blackfoot*.
4. Rial, Ellie. 2015. M.S. Resource Conservation. (advisor: E.Metcalf). *Public-private water conservation*.
3. Hemphill, Cassandra. 2015. Ph.D. Forest & Conservation Sciences. (advisor: J.Burchfield). *Implementation and institutionalization of stewardship contracting by units of the US Forest Service*.
2. McIver, Chelsea. 2015. M.S. Forestry. (advisor: E.Dodson). *Local capture of forest restoration benefits*.
1. Muller, Alia. 2014. M.S. Environmental Studies. (advisor: L.Broberg). *Impacts of public wolf hunting*.

##### Other graduate student supervision

4. Phelan, Conor. (FA16-SU18). M.S. research assistant (fully funded). *Spatial analysis in SES*.

3. Ver Plank, Neil. (SP15-FA15). Ph.D. research assistant (Univ. of Michigan). *PFL estimation*.
2. Tinsley, Bridget. (SP14). M.S. research assistant (partially funded). *Socioeconomic monitoring*.
1. Miftari, Shefije. (FA13). M.S. research assistant (partially funded). *CFC alumni employment*.

#### Research associate and post-doctoral scholar supervision

2. Essen, M. (FA2014-SP16). Research Associate (funded). *Human dimensions of forest planning*.
1. Kumalo, K. (FA2014-SP2015). Post-doc (funded). *Human dimensions of elk management*.

#### TEACHING

<u>University</u>	<u>Number/Title/Credits</u>	<u>Semester(s)</u>
<b>University of Montana</b>	WILD 291 (3cr) Human Dimensions of Wildlife	SP22
	NRSM 595 (1cr) Special Topics: Social Data Analysis	FA19
	NRSM 379 (3cr) Collaboration in Natural Resource Decisions	SP12, SP13, FA14, SP14, FA15, SP17, SP18, SP19
	NRSM 121 (3cr) Intro to Environmental Science & Sustainability (previously "Nature of Montana")	FA15, FA16, FA17, FA18, FA19, FA20, FA21, FA22
	NRSM 215 (1 cr) Field studies in conservation (field based)	FA16, FA17
	PTRM/NRSM 574 (3cr) Human dimensions of natural resources theory	FA16, FA18, FA19, SP21, SP22
	FORS 130 (2cr) Forestry Field Skills (field based)	FA14
	NRSM 191 (1cr) Natural Resource Field Techniques (field based)	SP14
	FORS 391 (3cr) Field Forestry Skills at LEF (field based)	SP13
	NRSM 595 (2cr) Special Topics: Human Dimensions of Wildlife	FA14
	NRSM 298/398/498 (1-6cr) Natural Resource Internships	SP14 to FA22
<b>Penn State University</b>	FOR/WFS 497 (3cr) Facilitating Natural Resource Decisions	SP07
	FOR 203 (3cr) Dendrology (w/Lab)	SP06
	FOR 366 (4cr) – Teaching Assistant Forest Mensuration (w/Lab)	FA05
<b>Juniata College</b>	ESS 100 (3cr) Earth and Environmental Science	FA10, SP11
	EES/RFS 330 (3cr) Geographic Information Systems (w/Lab)	SP08, FA08, SP11

#### AWARDS & HONORS

- W.A. Franke College of Forestry and Conservation Steve Running Outstanding Research Award (2020)
- UM Davidson Honors College, Undergraduate Research Support Recognition (2020)
- Rabel J. Burdge & Donald R. Field 2018 Outstanding Article Award, *Society and Natural Resources* (2019)
- Article selected as Editor's Choice for Volume 69, Issue 5, *BioScience* (2019)
- UM Student Wellness Advocate (2017)
- UM Division of Student Affairs, Faculty Recognition Award (2016)
- Montana Druids Society (2013)
- Xi Sigma Pi Honor Society (2004)
- Competitive Teaching/Research Assistantships (2003-2010), Penn State University

- Competitive Research Travel Awards (2006, 2007, 2008), Penn State University
- William von Liebig Student Research Award (2001), Juniata College
- FEMA Region III Achievement Award for GIS floodplain mapping advancement (2001)
- Presidential Scholarship (1997-2001), Juniata College
- National Honor Society (inducted 1997)

#### SERVICE

##### To the department, college, and university

- WBIO Faculty mentor committee (2021-present)
- CFC Tenure Track Search Committee, chair (AY21/22)
- CFC Ad-hoc, Strategic Planning Committee, co-chair (SP21)
- CFC Scholarship Committee (2020-present)
- CFC Recruitment and Retention Committee (2018, Chair 2019-2020)
- CFC Environmental Science & Sustainability, Ad-hoc Committee (2018-2019)
- CFC Graduate Affairs Committee (2016-2019)
- Faculty Advisor to UM Student Chapter of Backcountry Hunters & Anglers (2016-present)
- UM Student Wellness Coalition (2017-present)
- UM Undergraduate Research Committee (2016-2020)
- Judge at UM's Undergraduate Research Symposium (2016-2018)
- UM Academic Conduct Board (2015-2020)
- Resource Conservation Degree Program (2015-2020)
- Resource Conservation Degree Program Internship Committee, (Chair, 2015-2020)
- Wildlife Biology Communications Committee, Chair (2015-2020)
- Wildlife Biology Degree Program (2014-present)
- Wildlife Biology Faculty Mentor Committee (2020-present)
- Systems Ecology Graduate Degree Program (2014-present)
- Systems Ecology Graduate Admissions Committee (2014-2017, Chair 2018-present)
- Montana Institute on the Environment (2014-present)
- ASCRC General Education Social Science Curriculum Review Committee (2016-2017)
- Wyss Scholarship Review Committee (2015; 2018)
- UM Graduate Student Research Symposium, Organizing Committee (2013-2015)
- Lubrecht Advisory Committee (2014-2016)
- Assistant Director, Bolle Center for People and Forests (2013-2015)
- Forestry Degree Program (2013-2015)
- FCFC Properties Committee (2013-2014; 2020-present)
- FCFC Undergraduate Affairs (2013-2014)

##### To the field

- Associate Editor, *Human Dimensions of Wildlife*
- Reviewer, *Society and Natural Resources*, *Journal of Forestry*, *Forests*, *Northern Journal of Applied Forestry*, *Energy and Social Science*, *Journal of Rural Studies*, *Human Dimensions of Wildlife*, *Wildlife Society Bulletin*, *Ecology and Society*, *Conservation Biology*, *Land Use Policy*, & *Landscape and Urban Planning*, *Fisheries Research*, *Biological Invasions*, *Animal Conservation*, *Conservation Science & Practice*
- External reviewer for the Delta Stewardship Council, Social Science Task Force (2019)
- Congressional and USDA briefing team, Wildfire Resilience (2019).
- Member, American Association for the Advancement of Science (2017-present)
- Society for Conservation Biology Conservation Marketing Working Group (2018-present)
- Society for Conservation Biology Social Science Working Group (2017-present)
- Society for Conservation Biology (2017-present)
- Member, International Association for Society and Resource Management (2006-present)
- Co-Founder & Affiliate Faculty, Penn State Center for Private Forests (2010-present)
- Member, Society of American Foresters, Allegheny and Missoula Chapters (2003-2015)
- Member, Pennsylvania Forestry Association (2003-2012)

- Member, Steering Committee for the Penn State Human Dimensions of Natural Resources and the Environment Dual Degree Program (2008-2012)
- Member, Northeast Forest Resource Extension Committee (2003-2011)
- Member, Pennsylvania Biomass Working Group (2008-2011)
- President & Founder, Penn State Student Organization for Society & Natural Resources (2006-2010)
- Vice President, Xi Sigma Pi Honor Society (2004-2006)

#### To the community

- Swan Valley Connections, Education Committee Chair (2020-2021)
- Swan Valley Connection, Executive Committee (2020-2021)
- Swan Valley Connections, Treasurer/Executive (2018-2020)
- Swan Valley Connections, Board of Directors (2016-present)
- Swan Ecosystem Center & Northwest Connections Merger Committee legal liaison (2015-2017)
- Northwest Connections, Board of Directors (2014-2017), executive committee 2014-2016)
- Southwest Crown of the Continent, Socio-Economic Working Group (2013-present)
- MT Natural Resources Collaborative Working Group (2013-2016)
- Community organization (e.g., local elections, Northside neighborhood community development)

#### UNDERGRADUATE STUDENT SUPERVISION

- Madeline Damon, Senior Thesis Committee (SP21)
- Rachel Shouse, Undergraduate research assistant (FA19-SP20)
- Lily Lang, Davidson Honors Student Senior Capstone, Social Resilience to Wildfire (FA19-SP20)
- Sophia French, Human dimensions lab participant (FA18-SP19)
- Julius Metcalf, Human dimensions of wildlife intern (Summer 2016) & senior thesis (SP17-FA18)
  - Research awarded the Irene Evers Scholarship for Undergraduate Research (\$5,000)
- Ryan Barr, Social ecological systems restoration intern (FA 2015, SP 2016)
- Reid Hansen, Forest planning intern (FA 2015, SP 2016)
- Jessica Brown, Recreation management intern (FA 2014, SP 2015)
- Seong Hopkins, Forest management intern, Lubrecht (Summer 2014)
- Charles Wentz, Forest management intern, Lubrecht (Summer 2014)
- Bryan Ramirez, Facilities marketing & management intern, Lubrecht (Summer 2014)
- Mary Sketch, Visiting Human Dimensions Research Assistant, Brown University (Summer 2014)
- Elizabeth James, Practicum: Ecological Restoration of Private Forestland (2013-2014)