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EDUCATION

- 2005 Ph.D., School of Renewable Natural Resources, University of Arizona, Tucson, AZ
1999 M.A., Geography, Western Michigan University, Kalamazoo, MI
1997 B.S., Biological Sciences, Western Michigan University, Kalamazoo, MI

PROFESSIONAL EXPERIENCE

- 2020-present Director, USA National Phenology Network, Tucson, AZ
2020-present Research Professor, School of Natural Resources and the Environment, University of Arizona, Tucson, AZ
2011-present Associate Research Scientist, School of Natural Resources and the Environment, University of Arizona, Tucson, AZ
2019-2020 Associate Director, USA National Phenology Network, Tucson, AZ
2015-2019 Assistant Director, USA National Phenology Network, Tucson, AZ
2007-2015 Partnerships & Outreach Coordinator, USA National Phenology Network, Tucson, AZ
2006-2007 Instructional Specialist, University of Arizona, Tucson, AZ
2002-2006 Quantitative Ecologist, Sonoran Desert Network Inventory & Monitoring, National Park Service, Tucson, AZ
2002-2004 UA/NASA Space Grant Fellow, University of Arizona, Tucson, AZ
2001-2002 Graduate Research Assistant, University of Arizona, Tucson, AZ
2001 Research GIS Consultant, Kalamazoo Nature Center, Kalamazoo, MI
1999-2001 Project Scientist, Kieser & Associates, Kalamazoo, MI
1997-2001 Graduate Assistant, Western Michigan University, Kalamazoo, MI

HONORS & AWARDS

- 2022** – *Woman of Impact Award*. University of Arizona.
2021 – *Fellow*. Linnean Society
2021 - *Enduring Achievement Award* to the USA National Phenology Network (with E. Denny, R. Marsh, E. Posthumus, A. Rosemartin, and J. Switzer). Advancing Research Impact in Society
2020 - *Shoemaker Award for Communication Product Excellence*, Webpage/Website category for “Phenology Trail Dashboards: Connecting Wildlife Refuges to Partners” (with P. Adams, L. Barnett, E. Denny, K. Gerst, R. Marsh, J. Marshall, T. Moody, J. Newman, E. Posthumus, A. Rosemartin, S. Schaffer, J. Switzer, and J. Weltzin). US Geological Survey.
2019-2020 – *Fellow, OpEd Project: Tucson Public Voices*. Women’s Foundation of Southern Arizona
2019 - *Outstanding Scholarly Achievement* for the USA-NPN’s Pheno Forecast maps (with L. Barnett, E. Denny, K. Gerst, R. Marsh, S. Oliver, E. Posthumus, A. Rosemartin, S. Schaffer, J. Switzer, and

- J. Weltzin). School of Natural Resources and the Environment, University of Arizona
- 2018** - *Globally-Engaged Pillar Award*. College of Arts and Sciences, Western Michigan University
- 2018** - *Alumni Achievement Award*. Department of Geography, Western Michigan University
- 2018** - *Shoemaker Award for Communication Product Excellence*, Excellence for the Webpage/Website category for “Tracking the Appearance of Spring: USA National Phenology Network’s Status of Spring website and maps product” (with L. Barnett, E. Denny, K. Gerst, L. Marsh, E. Posthumus, A. Rosemartin, S. Schaffer, J. Switzer, and J. Weltzin). US Geological Survey.
- 2018** - *Climate Adaptation Leadership Award for Natural Resources* to the USA National Phenology Network (with L. Barnett, E. Denny, K. Gerst, R. Marsh, S. Oliver, E. Posthumus, A. Rosemartin, S. Schaffer, J. Switzer, and J. Weltzin). Association of Fish and Wildlife Agencies.
- 2018** - *Blue Pencil & Gold Screen Award of Excellence* for the USA National Phenology Network 2016 Annual Report (with E. Posthumus, J. Weltzin, and T. Moody).
- 2017** - *Outstanding Achievement Award* for USA-NPN’s Start of Spring Maps and Access Tools (with L. Barnett, E. Denny, K. Gerst, R. Marsh, S. Oliver, E. Posthumus, A. Rosemartin, S. Schaffer, J. Switzer, and J. Weltzin). Renewable Natural Resource Foundation.
- 2016** - *Environmental Achievement Award* in Climate Champion category (with L. Barnett, E. Denny, K. Gerst, R. Marsh, S. Oliver, E. Posthumus, A. Rosemartin, S. Schaffer, J. Switzer, and J. Weltzin). US Geological Survey.
- 2016** - *Greening the Department of Interior*, Honorable Mention (with L. Barnett, E. Denny, K. Gerst, R. Marsh, S. Oliver, E. Posthumus, A. Rosemartin, S. Schaffer, J. Switzer, and J. Weltzin). US Department of the Interior.
- 2014** - *Shoemaker Award for Communication Product Excellence*, Internet Product category for “Connecting People with Nature to Benefit Our Changing Planet: The *Nature’s Notebook* website” (with L. Barnett, C. Bush, L. Marsh, T. Moody, E. Posthumus, A. Rosemartin, S. Schaffer, E. Surina, and J. Weltzin). US Geological Survey.
- 2005** - *On-the-Spot Award*. Sonoran Desert Network, National Park Service
- 1999** - *Outstanding Graduate Research Award*. College of Arts and Sciences, Western Michigan University
- 1999** - *Graduate Research and Creative Scholar Award*. Western Michigan University Graduate College
- 1999** - *Graduate Student Outstanding Scholastic Achievement Award*. Department of Geography, Western Michigan University
- 1997** - *Clifford and Ella Chapman Distinguished Senior Scholarship*. Western Michigan University
- 1996** - *Frank Hinds Zoology Award*. Western Michigan University Department of Biology
- 1993-1997** - *Excellence Scholarship*. Western Michigan University

SELECT SERVICE ACTIVITIES

- 2016-present Editorial Board, *Ecosphere*
- 2020-present Editorial Advisory Board, *International Journal of Biometeorology*
- 2014-2017 Editorial Advisory Board, *International Journal of Biometeorology*

PUBLICATIONS

2022 *State of the Climate*

Hemming, D.L., O. Anneville, Y. Aono, **T.M. Crimmins**, N. Estrella, J. Garforth, A. Menzel, J. O’Keefe, T. Park, A.D. Richardson, T. Rutishauser, T.H. Sparks, S.J. Thackeray, A. van Vliet, I. Mrekaj, and J. Rozkošný. 2023. “Phenology of primary producers.” In: 2022 State of the Climate. *Bulletin of the American Meteorological Society*. Forthcoming

Fifth National Climate Assessment

Carter, S.L., P.D. McElwee, K.J.W. Hyde, J. West, K. Akamani, A.L. Babson, G. Bowser, J.B. Bradford, J.K. Costanza, **T.M. Crimmins**, S.C. Goslee, S.K. Hamilton, B. Helmuth, S. Hoagland, F.A.E. Hoover, M.E. Hunsicker, R. Kashuba, S.A. Moore, R.C. Munoz, G. Shrestha, M. Uriarte, and J.L. Wilkening. “Chapter 8. Ecosystems, Ecosystem Services, and Biodiversity.” In: *The Fifth National Climate Assessment*. Forthcoming, 2023.

Book Chapters

1. **Crimmins, T.M.** 2022. “Preface.” *Plants from Season to Season: A Guidebook for Making Phenological Observations on Plants*. Mèze, France. Editions Biotope, p 8.
2. **Crimmins, T.M.**, L. Barnett, E.G. Denny, A.H. Rosemartin, S. Schaffer, and J.F. Weltzin. 2020. “From tiny acorns grow mighty oaks: what we’ve learned from nurturing *Nature’s Notebook*.” In: *Handbook of Citizen Science in Ecology and Conservation*. Eds. C. Lepczyk, T. Vargo, and O.D. Boyle. University of California Press, pp 191-222.
3. Posthumus, E.E., L. Barnett, **T.M. Crimmins**, P.L. Warren, E. Stancioff, and J. Einerson. 2019. “Building local resilience to climate change through citizen science, environmental education, and decision-making.” In: *Addressing Climate Change at the Community Level in the United States*. Eds. P.R. Lachapelle and D.E. Albrecht. New York: Routledge/Taylor & Francis, pp 50-64.
4. Schwartz, M.D., E. Beaubien, **T.M. Crimmins**, and J.F. Weltzin. 2013. “North America.” In: *Phenology: An Integrative Environmental Science*. 2nd edition. Dordrecht: Kluwer Academic Publishers. Online: www.springer.com/life+sciences/ecology/book/978-94-007-6924-3 pp 67-89.

Refereed Journal Articles

1. Li, X., T.R. Ault, C.P. Evans, F. Lehner, C.M. Carrillo, A.C. Donnelly, **T.M. Crimmins**, A.S. Gallinat, and M.D. Schwartz. 2023. Growing uncertainty in projected spring onset variability in the Northern Hemisphere. *Geophysical Research Letters*. In press.
2. Melichar, M., K. Didan, A. Barreto-Muñoz, J.N. Duberstein, E. Jiménez Hernández, **T. Crimmins**, H. Li, M. Traphagen, K.A. Thomas, and P.L. Nagler. 2023. Random forest classification of multitemporal Landsat 8 spectral data and phenology metrics for land cover mapping in the Sonoran and Mojave Deserts. *Remote Sensing* 15:1266. <https://doi.org/10.3390/rs15051266>
3. Denny, E.G. and **T.M. Crimmins**. 2023. Updates to standardized plant and animal observation protocols of the USA National Phenology Network. *International Journal of Biometeorology*. In press.
4. Rosemartin, A.H., **T.M. Crimmins**, K.L. Gerst, E.E. Posthumus, A. Ramirez, C.S.A. Wallace, and T.L. Morelli. 2023. Lessons learned in knowledge coproduction for conservation science. *Environmental Science & Policy* 141: 178-187. doi.org/10.1016/j.envsci.2023.01.010
5. Katz, D., E. Vogt, A. Manangan, C.L. Brown, D. Dalan, K. Zhu, Y. Song, and **T.M. Crimmins**. 2022. Observations from the USA National Phenology Network can be leveraged to model airborne pollen. *Aerobiologia* doi.org/10.1007/s10453-022-09774-3
6. Miller-Rushing, A.J., L.R. Ellwood, **T.M. Crimmins**, A.S. Gallinat, M. Phillips, R.L. Sandler, and R.B. Primack. 2022. Conservation ethics in the time of the pandemic: Does increasing remote access affect social justice? *Biological Conservation* 276: 109788. doi.org/10.1016/j.biocon.2022.109788
7. Ye, Y., X. Zhang, Y. Shen, J. Wang, **T.M. Crimmins**, and H. Scheifinger. 2022. An optimal method for validating satellite-derived land surface phenology using in-situ observations from

- national phenology networks. *ISPRS Journal of Photogrammetry and Remote Sensing* 194: 74-90. doi.org/10.1016/j.isprsjprs.2022.09.018
8. **Crimmins, T.M.**, E.G. Denny, E.E. Posthumus, A.H. Rosemartin, R. Croll, M. Montano, and H. Panci. 2022. Science and management advancements made possible by the USA National Phenology Network's *Nature's Notebook* platform. *BioScience* 72(9): 908-920. doi.org/10.1093/biosci/biac061
 9. **Crimmins, T.M.** and E.E. Posthumus. 2022. Do carefully-timed email messages increase accuracy and precision in citizen scientists' reports of events? *Citizen Science Theory and Practice* 7(1):1-11. doi.org/10.5334/cstp.464
 10. **Crimmins, T.M.** and M.A. 2022. Crimmins. Large-scale citizen science programs hold potential to support ecological and climate change assessments. *Environmental Research Letters* 17: 065011. doi.org/10.1088/1748-9326/ac72b7
 11. Fuccillo Battle, K., A. Duhon, C. Vispo, **T.M. Crimmins**, T.N. Rosenstiel, L. Armstrong-Davies, and C. de Rivera. 2022. Citizen science across two centuries reveals phenological change among plant species and functional groups in the Northeastern U.S. *Journal of Ecology* 110:1757-1774. doi.org/10.1111/1365-2745.13926. Selected as Editor's Choice for August, 2022: jccologyblog.com/2022/08/10/editors-choice-1108-two-centuries-of-change/
 12. Dwivedi, D., A.L.D. Santos, M.A. Barnard, **T.M. Crimmins**, A. Malhotra, K.A. Rod, K.S. Aho, S. Bell, B. Bomfim, F. Brearley, H. Cadillo-Quiroz, J. Chen, C.M. Gough, E.B. Graham, C.R. Hakkenberg, L. Haygood, G. Koren, E. Lilleskov, L.K. Meredith, S. Naeher, Z.L. Nickerson, O. Pourret, H.-S. Song, M. Stahl, N. Tas, R. Vargas, and S. Weintraub-Leff. 2022. Biogeosciences perspectives on Integrated, Coordinated, Open, Networked (ICON) science. *Earth and Space Science* 9: e2021EA002119. doi.org/10.1029/2021EA002119
 13. Gerst, K.L., **T.M. Crimmins**, E.E. Posthumus, R.L. Marsh, J. Switzer, C. Wallace. 2021. The USA National Phenology Network's Buffelgrass Green-up Forecast map products. *Ecological Solutions and Evidence* e12109:1-6. doi.org/10.1002/2688-8319.12109
 14. Morisette, J.T., K.A. Duffy, J.F. Weltzin, D.M. Browning, R.L. R. Marsh, A.M. Friesz, L.J. Zachmann, K.D. Enns, V.A. Landau, K.L. Gerst, **T.M. Crimmins**, K.D. Jones, T. Chang, B.W. Miller, T.K. Maiersperger, A.D. Richardson. 2021. PS3: The Pheno-Synthesis Software Suite for integration and analysis of multi-scale, multi-platform phenological data. *Ecological Informatics* 65:101400. doi.org/10.1016/j.ecoinf.2021.101400
 15. Bates, A., R.B. Primack, B. Biggar, ... **T.M. Crimmins**, ... and C.M. Duarte. 2021. Global COVID-19 lockdown highlights humans as both threats and custodians of the environment. *Biological Conservation* 263:109175. doi.org/10.1016/j.biocon.2021.109175.
 16. **Crimmins, T.M.**, E.E. Posthumus, S.N. Schaffer, and K.L. Prudic. 2021. COVID-19 impacts on participation in large scale community science projects in the United States. *Biological Conservation* 256:109017. doi.org/10.1016/j.biocon.2021.109017.
 17. Weltzin, J.F., J.L. Betancourt, B.I. Cook, **T.M. Crimmins**, C.A.F. Enquist, M.D. Gerst, J.E. Gross, G.M. Henebry, R.A. Hufft, M.A. Kenny, J.S. Kimball, B.C. Reed, and S.W. Running. 2020. Seasonality of biological and physical systems as indicators of climate variation and change. *Climatic Change* 163:1755-1771. doi.org/10.1007/s10584-020-02894-0.
 18. Gerst, K.L., **T.M. Crimmins**, E.E. Posthumus, A.H. Rosemartin, and M.D. Schwartz. 2020. How well do the Spring Indices predict phenological activity across plant species? *International Journal of Biometeorology* 64: 889-901 doi.org/10.1007/s00484-020-01879-z
 19. **Crimmins, T.M.**, K.L. Gerst, D.G. Huerta, R.L. Marsh, E.E. Posthumus, A.H. Rosemartin, J. Switzer, J.F. Weltzin, L. Coop, N. Dietschler, D.A. Herms, S. Limbu, R.T. Trotter III, M. Whitmore. 2020. Short-term forecasts of insect phenology inform pest management. *Annals of the Entomological Society of America* 113(2): 139-148. doi.org/10.1093/aesa/saz026.
 20. **Crimmins, T.M.** and M.A. Crimmins. 2019. Biologically-relevant trends in springtime temperatures across the United States. *Geophysical Research Letters* 46(21):12377-12387.

- doi.org/10.1029/2019GL085251.
21. Elmendorf, S.C., **T.M. Crimmins**, K.L. Gerst, and J.F. Weltzin. 2019. Time to branch out? Application of hierarchical survival models in plant phenology. *Agriculture and Forest Meteorology*. 279:107694. doi.org/10.1016/j.agrformet.2019.107694.
 22. Prudic, K.L., J.K. Wilson, M.C. Toshack, K.L. Gerst, A.H. Rosemartin, **T.M. Crimmins**, and J.C. Oliver. 2019. Creating the urban Farmer's Almanac with citizen science data. *Insects* 10(9): 294. doi.org/10.3390/insects10090294.
 23. Crimmins, M.A. and **T.M. Crimmins**. 2019. Does an early spring indicate an early summer? Relationships between intraseasonal growing degree day thresholds. *Journal of Geophysical Research - Biogeosciences*. 124:1-14. doi.org/10.1029/2019JG005297
 24. Waller, E.K., **T.M. Crimmins**, J.J. Walker, E.E. Posthumus, and J.F. Weltzin. 2018. Differential changes in the onset of spring across US National Wildlife Refuges and North American migratory bird flyways. *PLoS ONE* 13(9): e0202495. doi.org/10.1371/journal.pone.0202495
 25. Browning, D.M., **T.M. Crimmins**, D.K. James, S. Spiegel, M.R. Levi, J.P. Anderson, and D.C. Peters. 2018. Synchronous species responses reveal phenological guilds – Implications for management. *Ecosphere* 9(9): e02395. doi.org/10.1002/ecs2.2395
 26. **Crimmins, T.M.** 2018. The USA National Phenology Network's growing degree day maps and online visualization tool support management decisions. *Journal of Extension*. 56: 3, 3TOT4. www.joe.org/joe/2018june/tt4.php
 27. **Crimmins, T.M.**, M.A. Crimmins, K.L. Gerst, A.H. Rosemartin, and J.F. Weltzin. 2017. USA National Phenology Network's volunteer-contributed observations yield predictive models of phenological transitions. *PLoS ONE* 12: e0182919. doi.org/10.1371/journal.pone.0182919
 28. Ellwood, E., **T.M. Crimmins**, and A.J. Miller-Rushing. 2017. Citizen science and conservation: Recommendations for a rapidly moving field. *Biological Conservation* 208:1-4. dx.doi.org/10.1016/j.biocon.2016.10.014
 29. Wright, K.W., K.L. Vanderbilt, D.W. Inouye, C.D. Bertelsen, and **T.M. Crimmins**. 2015. Turnover and reliability of flower communities in extreme environments: Insights from long-term phenology data sets. *Journal of Arid Environments* 115:27-34.
 30. Fuccillo, K.K., **T.M. Crimmins**, C. DeRivera, and T.S. Elder. 2015. Assessing accuracy in citizen science-based plant phenology monitoring. *International Journal of Biometeorology* 59:917-926. doi.org/10.1007/s00484-014-0892-7
 31. **Crimmins, T.M.**, J.F. Weltzin, A.H. Rosemartin, E.M. Surina, and L. Marsh, E.G. Denny. 2014. Targeted campaign increases activity among participants in *Nature's Notebook*, a citizen science project. *Natural Sciences Education* 43:64-72.
 32. **Crimmins, T.M.**, C.D. Bertelsen, and M.A. Crimmins. 2014. Within-season flowering interruptions are common in the water-limited Sky Islands. *International Journal of Biometeorology* 58:419-426. doi.org/10.1007/s00484-013-0745-9.
 33. Denny, E.G., K.L. Gerst, A.J. Miller-Rushing, G.L. Tierney, **T.M. Crimmins**, C.A.F. Enquist, P. Guertin, A.H. Rosemartin, M.D. Schwartz, K.A. Thomas, J.F. Weltzin. 2014. Standardized phenology monitoring methods to track plants and animal activity for science and resource management applications. *International Journal of Biometeorology* 58:591-601. doi.org/10.1007/s00484-014-0789-5.
 34. Rosemartin, A.H., **T.M. Crimmins**, C.A.F. Enquist, K.L. Gerst, J.L. Kellermann, E.E. Posthumus, J.F. Weltzin, E.G. Denny, P. Guertin, and L. Marsh. 2014. Organizing phenological data resources to inform natural resource conservation. *Biological Conservation* 173:90-97. dx.doi.org/10.1016/j.biocon.2013.07.003
 35. Davies, T.J., E.M. Wolkovich, N.J.B. Kraft, N. Salamin, J.M. Allen, T.R. Ault, J.L. Betancourt, K. Bolmgren, E.E. Cleland, B.I. Cook, **T.M. Crimmins**, S.J. Mazer, G.J. McCabe, S. Pau, J. Regetz, M.D. Schwartz, S. Travers. 2013. Phylogenetic conservatism in plant phenology. *Journal of Ecology* 101:1520-1530. [doi: 10.1111/1365-2745.12154](https://doi.org/10.1111/1365-2745.12154).

36. **Crimmins, T.M.**, M.A. Crimmins, and C.D. Bertelsen. 2013. Spring and summer patterns in flowering onset, duration, and constancy across a water-limited gradient. *American Journal of Botany* 100:1-11.
37. Posthumus, E.E., L. Barnett, **T.M. Crimmins**, G. Kish, W. Sheftall, E. Stancioff, and P. Warren. 2013. *Nature's Notebook* and Extension: Engaging citizen-scientists and 4-H youth to observe a changing environment. *Journal of Extension* 51(1): 11AW1. Online: www.joe.org/joe/2013february/iw1.php.
38. Cook, B.I., E.M. Wolkovich, T.J. Davies, T.R. Ault, J.L. Betancourt, J.M. Allen, K. Bolmgren, E.E. Cleland, **T.M. Crimmins**, N.J.B. Kraft, L.T. Lancaster, S.J. Mazer, G.J. McCabe, B.J. McGill, C. Parmesan, S. Pau, J. Regetz, N. Salamin, M.D. Schwartz, S.E. Travers. 2012. Sensitivity of spring phenology to warming across temporal and spatial climate gradients in two independent databases. *Ecosystems* DOI: 10.1007/s10021-012-9584-5.
39. Wolkovich, E.M., B.I. Cook, J.M. Allen, **T.M. Crimmins**, S. Travers, S. Pau, J. Regetz, T.J. Davies, J.L. Betancourt, N.J.B. Kraft, T.R. Ault, K. Bolmgren, S.J. Mazer, G.J. McCabe, B.J. McGill, C. Parmesan, N. Salamin, M.D. Schwartz, and E.E. Cleland. 2012. Warming experiments underpredict plant phenological responses to climate change. *Nature* 485: 494-497. doi.org/10.1038/nature11014
40. Deiz, J.M., I. Ibañez, A.J. Miller-Rushing, S.J. Mazer, **T.M. Crimmins**, M.A. Crimmins, C.D. Bertelsen, D.W. Inouye. 2012. Forecasting phenology: from species variability to community patterns. *Ecology Letters* 15:545-553.
41. Cleland, E.E., J.M. Allen, **T.M. Crimmins**, S. Pau, S.E. Travers, E.M. Wolkovich. 2012. Phenological tracking enables positive species responses to climate change. *Ecology* 93: 1765-1771.
42. **Crimmins, T.M.**, M.A. Crimmins, and C.D. Bertelsen. 2011. Onset of summer flowering in a 'Sky Island' is driven by monsoon moisture. *New Phytologist* 191:468-479.
43. **Crimmins, T.M.**, M.A. Crimmins, and C.D. Bertelsen. 2010. Complex responses to climate drivers in onset of spring flowering across a semi-arid elevation gradient. *Journal of Ecology* 98:1042-1051.
44. **Crimmins, T.M.** and C.L. Rupprecht. 2010. Testing Online learning modules for an extension program – useful and utilized? *Journal of Natural Resources and Life Sciences Education* 39:102-108.
45. **Crimmins, T.M.**, M.A. Crimmins, and C.D. Bertelsen. 2009. Flowering range changes across an elevation gradient in response to warming summer temperatures. *Global Change Biology* 15:1141-1152.
46. ***Crimmins, T.M.** and G.R. McPherson. 2008. Vegetation and seed bank response to *Eragrostis lehmanniana* removal. *Weed Research* 48:542-551.
47. Crimmins, M.A. and **T.M. Crimmins**. 2008. Monitoring plant phenology using digital repeat photography. *Environmental Management* 41:949-958.
48. **Crimmins, T.M.**, M.A. Crimmins, D. Bertelsen, and J. Balmat. 2008. Relationships between flowering diversity and climatic variables along an elevation gradient. *International Journal of Biometeorology* 52:353-366.
49. **Crimmins, T.**, M.S. Mauzy, and S.E. Studd. 2008. Assessing exotic plant distribution, abundance, and impact at Montezuma Castle and Tuzigoot National Monuments in Arizona, USA. *Ecological Restoration* 26:47-53.
50. Crimmins, M.A., G. Zaines, N. Haas, C.K. Jones, G. Garfin, and **T.M. Crimmins**. 2007. Changes on the range: A novel exercise to explore interactions between range management decision making and climate change. *Journal of Natural Resources and Life Sciences Education*. 36:76-86.
51. **Mau-Crimmins, T.** 2007. Effects of removing *Cynodon dactylon* from a recently abandoned agricultural field. *Weed Research*. 47:212-221.

52. Schussman, H.R., E.L. Geiger, **T.M. Mau-Crimmins**, and J. Ward. 2006. Spread and current potential distribution of an alien grass, *Eragrostis lehmanniana* Nees, in the southwestern USA: comparing historical data and ecological niche models. *Diversity and Distributions* 12:582-592.
53. **Mau-Crimmins, T.**, H.R. Sc49hussman, and E.L. Geiger. 2006. Can the invaded range of a species be predicted sufficiently using only native-range data?: Lehmann lovegrass (*Eragrostis lehmanniana*) in the southwestern United States. *Ecological Modelling* 193:736-746.
54. **Mau-Crimmins, T.**, J.E. de Steiguer, and D. Dennis. 2005. The Analytic Hierarchy Process and public participation in forest planning: A pilot study involving natural resource students. *Forest Economics & Policy* 7(4):501-514.
55. **Mau-Crimmins, T.** and D.S. Lemberg. 2003. Reserve site selection at a non-profit educational nature center. *The Great Lakes Geographer*. 10(1): 34-45.
56. de Steiguer, J.E. and **T. Mau-Crimmins**. 2002. Economic analysis in watershed management planning: Methods, applications and education. *Annals of Arid Zone* 41: 343-357.

Other Peer-Reviewed Publications

1. Gerst, K.L., A.H. Rosemartin, E.E. Posthumus, and **T.M. Crimmins**. Successes and challenges on a spectrum of stakeholder engagement. 2022. Pages 149-160 in: Neary, D.G. and Gottfried, G.J., eds. Collaboration Now for the Future: Biodiversity and Management of the Madrean Archipelago VI meeting proceedings, Tucson, Arizona, May 14-18, 2018. Proceedings RMRS-P-79. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 495 p. doi.org/10.2737/RMRS-P-79
2. Vogt, E., **T. Crimmins**, D. Dalan, D. Katz, A. Manangan and C. Brown. 2022. How well do volunteer-contributed observations of flowering characterize the springtime airborne pollen season? Published abstract. *Journal of Allergy and Clinical Immunology* 149(2): AB198 doi.org/10.1016/j.jaci.2021.12.653
3. **Crimmins, T.M.** 2021. Reading the leaves to track environmental hazards and health. *Eos* 102. doi.org/10.1029/2021EO157181. Published on 16 April 2021.
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