

Jason P. Harmon

Contact Information

School of Natural Resource Sciences (SNRS)
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Academic Positions

Professor, North Dakota State University <i>Current appointment: 80% research & 20% teaching</i>	2022 – Present
Associate Director, School of Natural Resource Sciences, NDSU	2019 – 2022
Associate Professor, North Dakota State University	2016 – 2022
Entomology Program Leader, North Dakota State University	2011 – 2022
Assistant Professor, North Dakota State University	2009 – 2016
Post-doctoral Researcher, University of Wisconsin	2005 – 2009
Post-doctoral Associate, University of California-Davis	2003 – 2005

Education

Ph.D. in Entomology, University of Minnesota	2003
B.S. Zoology with Honors, University of Wisconsin	1997

Overview of Leadership Experiences

SNRS Promotion, Tenure & Evaluation (PTE) Committee Chair (2024-Present)

- Leading reform of PTE process, prioritizing fairness, transparency, & support.
- Developing and implementing streamlined procedures for clear communication.

SNRS Faculty Search Committee Chair (2024-Present)

- Spearheading new protocols to foster stronger and more multi-faceted engagement between candidates and faculty.
- Leading efforts to create a more inclusive and comprehensive search process, integrating diverse perspectives from current personnel.

Curriculum & Teaching Leader (2023-Present)

- Driving continuous curriculum enhancement while ensuring alignment with evolving institutional policies.

- Managing course scheduling and curriculum updates, coordinating with faculty and administrative staff to implement necessary changes efficiently.

SNRS Associate Director (2019-2022)

- Supported the Director in all administrative and leadership functions, with a focus on organizational efficiency and effectiveness.
- Supervised administrative staff, leading recruitment, onboarding, and day-to-day operational oversight.
- Led key initiatives, including the development of responses to COVID-19, coordinating safety measures with internal stakeholders and health agencies.
- Developed strategies and secured funding to grow SNRS, such as the Master of Natural Resource Management professional program.
- Represented the SNRS Director in meetings, ensuring continuity and alignment of departmental goals.

SNRS Program Leader - Entomology (2011-2022)

- Acted as the primary liaison between SNRS and national departments and professional societies, strengthening partnerships and collaboration.
- Served as the key contact for prospective and current students, providing guidance and support throughout their academic journey.

Overview of Academic Accomplishments & Experiences*

**Please see respective sections for detailed listings*

Research

Peer-Reviewed Publications	#	Citations	h-index	i10-index
Total	79	3,424	28	58
Since 2019	28	1,836	24	41

Experience with journals in ecology, rangelands, entomology, general science (Nature & Science), agriculture, and soil science

Research Grants & Fellowships	#	Amount
Total	49	\$9,638,928
Since 2019	18	\$4,221,944

Experience with competitive funding opportunities from federal funding sources (USDA, NSF, NRCS), state and federal agencies (ND Dept of Agriculture, ND Game & Fish, USFWS), and commodity groups (ND soybean council, ND corn council)

Scientific Presentations & Symposia	Invited	Contributed
Total	52	140
Since 2019	13	61

Experience with Society for Rangeland Management, Entomological Society of America (National and North Central Branch), Soil Science Society of America, state & local talks

Teaching

Primary Classes: Writing a Scientific Literature Review (taught 11 times), Insect Ecology (7), SNRS Graduate Symposium (10). Natural Resource Management Orientation (1)

Additional Experiences: Classroom Undergraduate Research Experience (CURE): Insect Behavior (2), Sapien Logic (for Honors Students) – Superhero Science (3), Special topics and symposiums (7)

Advising

Graduate Student Advising	MNRM	MS	PhD
Advisor or Co-advisor	4	16	3
Supervisory committee member	1	25	15

Service

Service to Discipline: ESA-NCB committees, regional working groups, grant review panels, assistant editor, peer reviews

Service to University: Hiring committees, faculty senate, dept & college committees

Research

Peer-Reviewed Publications

1. Kjaer, EL, R Limb, B Geaumont, **JP Harmon**, TJ Hovick, KK Sedivec. 2024. Fire and grazing reduce invasive grass thatch in rangelands. *Rangeland Ecology & Management* In press.
2. Warcup, K, B Robertson, K Kral-O'Brien, **J Harmon**. 2023. Acetolysis modifications to process small pollen samples swabbed from live bees. *Journal of Insect Science* 23:1-6.
3. Pei, CK, TJ Hovick, RF Limb, **JP Harmon**, BA Geaumont. 2023. Native and introduced pollinators vary in their seasonal floral resource visitation and selection between native and exotic plant species. *Journal of Applied Ecology* 60:1424-1434. <https://doi.org/10.1111/1365-2664.14416>

4. Kral-O'Brien, KC, B Robertson, CA Duquette, TJ Hovick, **JP Harmon**. 2023. A mechanistic framework for studying indirect effects of large vertebrate herbivores on pollinators. *Arthropod-Plant Interactions* 17:263-274.
5. Pei, CK, TJ Hovick, RF Limb, **JP Harmon**, BA Geaumont. 2023. Invasive grass and litter accumulation constrain bee and plant diversity in altered grasslands. *Global Ecology and Conservation* 41:e02352.
6. Kral-O'Brien, KC, S Adams, A Antonsen, C Bendel, H Keen, CK Pei, B Robertson, B Geaumont, R Limb, T Hovick, **J Harmon**. 2022 Pollinator research provides conservation management implications in North Dakota. *Agricultural & Environmental Letters* 7:e20086.
7. Duquette, CA, TJ Hovick, BA Geaumont, **JP Harmon**, RF Limb, KK Sedivec. 2022. Embracing inherent and imposed sources of heterogeneity in rangeland bird management. *Ecosphere* 13:e4304.
8. Pei, CK, TJ Hovick, RF Limb, **JP Harmon**, BA Geaumont. 2022. Bumble Bee (*Bombus*) species distribution, phenology and diet in North Dakota. *Prairie Naturalist* Special Issue 1:11-29.
9. Duquette, CA, TJ Hovick, BA Geaumont, **JP Harmon**, RF Limb, KK Sedivec. 2022. Spatially discrete disturbance processes enhance grassland floral resources. *Journal of Applied Ecology* 59:1700-1708.
10. Pei, CK, TJ Hovick, CA Duquette, RF Limb, **JP Harmon**, BA Geaumont. 2022. Two common bee-sampling methods reflect different assemblages of the bee (Hymenoptera: Apoidea) community in mixed-grass prairie systems and are dependent on surrounding floral resource availability. *Journal of Insect Conservation* 26:69-83.
11. Cutter, J, T Hovick, D McGranahan, **J Harmon**, R Limb, J Spiess, B Geaumont. 2022. Cattle grazing results in greater floral resources and pollinators than sheep grazing in low-diversity grasslands. *Ecology and Evolution* 12:e8396.
12. Kral-O'Brien, KC, TJ Hovick, and **JP Harmon**. 2022. Quid pro quo? A review on bee (Hymenoptera: Apoidea) utilization of pollinator-independent crops. *Annals of the Entomological Society of America* 115:1-9.
13. Antonsen, AK, KC Kral-O'Brien, TJ Hovick, RF Limb, BA Geaumont, and **JP Harmon**. 2021. Intra-annual spatiotemporal dynamics of the monarch butterfly (Lepidoptera: Danaidae), Regal fritillary (Lepidoptera: Heliconiinae), and their floral resources in North Dakota, United States. *Annals of the Entomological Society of America* 114:727-737.
14. Cutter, J, B Geaumont, D McGranahan, **J Harmon**, R Limb, C Schauer, T Hovick. 2021. Cattle and sheep differentially alter floral resources and the native bee communities in working landscapes. *Ecological Applications* 31:e02406.
15. Kral-O'Brien, KC, A Antonsen, TJ Hovick, RF Limb, **JP Harmon**. 2021. Getting the most from surveys: How method selection and method modification impact butterfly survey data. *Annals of the Entomological Society of America* 114:719-726.
16. Kral-O'Brien, KC, AK Antonsen, and **JP Harmon**. 2021. Snapshot observations demonstrate within- and across-year weather related changes in butterfly behavior. *Climate Change Ecology* 1:100004. [https:// doi.org/10.1016/j.ecochg.2021.100004](https://doi.org/10.1016/j.ecochg.2021.100004)

17. Kral-O'Brien, KC and **JP Harmon**. 2021. The expanding role of movement behavior in insect conservation ecology. *Current Opinion in Insect Science* 45:69-74.
18. Kral-O'Brien, KC, PL O'Brien, TJ Hovick, **JP Harmon**. 2021. Meta-analysis: Higher plant richness supports higher pollinator richness across many land use types. *Annals of the Entomological Society of America* 114:267-275.
19. Kral-O'Brien, KC, BM Karasch, TJ Hovick, RA Moranz, **JP Harmon**. 2020. Morphological traits determine detectability bias in North American grassland butterflies. *Ecosphere* 11:e03304.
20. Kruger, M, S Sigdel, C Gasch, T DeSutter, **J Harmon**, A Chatterjee. 2020. Soil carbon dioxide efflux from amended saline and thermally desorbed oil-contaminated subsoil. *Agrosystems, Geosciences & Environment* 3:e20100
21. Gasch, CK, D Toledo, K Kral-O'Brien, C Baldwin, C Bendel, W Fick, L Gerhard, **J Harmon**, J Hendrickson, T Hovick, M Lakey, D McGranahan, SK Nouwakpo, K Sedivec. 2020. Kentucky bluegrass invaded rangeland: Ecosystem implications and adaptive management approaches. *Rangelands* 42:106-116.
22. Ives, AR, BT Barton, RM Penczykowski, **JP Harmon**, KL Kim, K Oliver, VC Radeloff. 2020. Self-perpetuating ecological-evolutionary dynamics in an agricultural host-parasite system. *Nature Ecology & Evolution* 4:702-711.
23. Valls, A, K Kral-O'Brien, J Kopco, **JP Harmon**. 2020. Timing alters how a heat shock affects a host-parasitoid interaction. *Journal of Thermal Biology* 90:102596.
24. Kral-O'Brien, KC, TJ Hovick, RF Limb, **JP Harmon**, EH Gillam. 2020. Incorporating field behaviors into monarch surveys to promote informed conservation actions. *Journal for Nature Conservation* 53:125761.
25. Follman, TJ, A Valls, KC Kral-O'Brien, **JP Harmon**. 2019. Mechanical stimulation from plant contact and wind negatively impact pea aphids (Hemiptera: Aphididae) indirectly through host plants. *Canadian Entomologist* 151:768-776.
26. Kral-O'Brien, KC, PL O'Brien, **JP Harmon**. 2019. Need for false spring research in the Northern Great Plains, USA. *Agricultural & Environmental Letters* 4:190025.
27. Kral-O'Brien, KC, RF Limb, TJ Hovick, **JP Harmon**. 2019. Compositional shifts in form and butterfly communities associated with Kentucky bluegrass invasions. *Rangeland Ecology & Management* 72:301-309.
28. Bendel, CR, KC Kral-O'Brien, TJ Hovick, RF Limb, **JP Harmon**. 2019. Plant-pollinator networks in grassland working landscapes reveal seasonal shifts in network structure and composition. *Ecosphere* 10(1):e02569. 10.1002/ecs2.2569
29. Eichele-Nelson, J, T DeSutter, AF Wick, EL Harmon, **JP Harmon**. 2018. Salinity improves performance and alters distribution of soybean aphids. *Environmental Entomology* 47:875-880.
30. Kral, KC, TJ Hovick, R Limb, **JP Harmon**. 2018. Multi-scale considerations for grassland butterfly conservation in agroecosystems. *Biological Conservation* 226:196-204.
31. Kral, KC, T Hovick, R Limb, **J Harmon**. 2018. Improving our science: the evolution of butterfly sampling and surveying methods over time. *Journal of Insect Conservation*.

22:1-14.

32. Bendel, CR, TJ Hovick, RF Limb, **JP Harmon**. 2018. Variation in grazing management practices support diverse butterfly communities across grassland working landscapes. *Journal of Insect Conservation* 22:99-111.
33. Butcher K, AF Wick, T DeSutter, A Chatterjee, **J Harmon**. 2018. Corn and soybean yield response to salinity influenced by soil texture. *Agronomy, Soils, and Environmental Quality* 110:1-11.
34. Eichele-Nelson, JL, AF Wick, TM DeSutter, and **JP Harmon**. 2017. The effects of salinity on the herbivorous crop pest *Tetranychus urticae* (Trombidiformes: Tetranychidae) on soybean and corn. *Environmental Entomology* 46:839-846.
35. **Harmon, JP** and A Daigh. 2017. Attempting to predict the plant-mediated trophic effects of soil salinity: a mechanistic approach to supplementing insufficient information. *Food Webs*, 13, 67-79.
36. Miller, CR, BT Barton, L Zhu, VC Radloff, KM Oliver, **J Harmon**, and AR Ives. 2017. Combined effects of night warming and light pollution on predator-prey interactions. *Proceedings of the Royal Society B: Biological Sciences*, 284, 20171195.
37. Kral, KC, RF Limb, **JP Harmon**, and TJ Hovick. 2017. Arthropods and fire: Previous research shaping future conservation. *Rangeland Ecology & Management* 70:589-598.
38. Sunoj, S, S Sivarajan, M Maharlooei, S Bajwa, **J Harmon**, J Nowatzki, I Cannayen. 2017. Identification and counting of soybean aphids from digital images using shape classification. *Transactions of the ASABE*, 60(5), 1467-1477.
39. Speights, CJ, **JP Harmon**, and BT Barton. 2017. Contrasting the potential effects of daytime versus nighttime warming on insects. *Current Opinions in Insect Science* 23:1-6.
40. Kraft, LJ, J Kopco, **JP Harmon**, and KM Oliver. 2017. Aphid symbionts and endogenous resistance traits mediate competition between rival parasitoids. *PLoS ONE* 12(7):e0180729. <https://doi.org/10.1371/journal.pone.0180729>.
41. Maharlooei, M, S Sivarajan, SG Bajwa, **JP Harmon**, and J Nowatzki. 2017. Detection of soybean aphids in a greenhouse using an image processing technique. *Computers and Electronics in Agriculture* 132:63-70.
42. Eichele, JL, J Dreyer, R Heinz, S Foster, DA Prischmann-Voldseth, and **JP Harmon**. 2016 Soybean aphid response to their alarm pheromone E- β -Fernesene (EBF). *Journal of Insect Behavior* 29:385-394.
43. Martinez, AJ, KL Kim, **JP Harmon**, and KM Oliver. 2016. Specificity of multi-model aphid defense against two rival parasitoids. *PloS ONE* 11:e0154670.
44. Butcher, K, AF Wick, T DeSutter, A Chatterjee, and **J Harmon**. 2016. Soil salinity: A threat to global food security. *Agronomy Journal* 108:2189-2200.
45. Burdick SC, DA Prischmann-Voldseth, and **JP Harmon**. 2015. Density and distribution of soybean aphid, *Aphis glycines* Matsumura (Hemiptera: Aphididae) in response to UV radiation. *Population Ecology* 57:457-466.
46. Whalen, R and **JP Harmon**. 2015. Temperature alters the interaction between a

- herbivore and a resistant host plant. *Arthropod-Plant Interactions* 9:233-240.
47. Meisner MH, **JP Harmon**, and AR Ives. 2014. Temperature effects on long-term population dynamics in a parasitoid-host system. *Ecological Monographs* 84:457-476.
48. Abbott, KC, **JP Harmon**, and NS Fabina. 2014. The challenge of predicting temperature effects on short-term predator-prey dynamics. *Population Ecology* 56:375-392.
49. Foster, SP, K Anderson, and **JP Harmon**. 2014. Increased allocation of adult-acquired carbohydrate to egg production results in its decreased allocation to sex pheromone production in mated females of the moth *Heliothis virescens*. *Journal of Experimental Biology* 217:499-506.
50. Solga, MJ, **JP Harmon**, and AC Ganguli. 2014. Timing is everything: An overview of phenological changes to plants and their pollinators. *Natural Areas Journal* 34:227-234.
51. **Harmon, JP** and BT Barton. 2013. On their best behavior: how animal behavior can help determine the combined effects of species interactions and climate change. *Annals of the New York Academy of Sciences* 1297:139-147.
52. Ganeshiarachchi, GASM, KM Anderson, **JP Harmon**, and MO Harris. 2013. Why oviposit there? Fitness consequences of a gall midge choosing the plant's youngest leaf. *Environmental Entomology* 42:123-130.
53. Behm, JE, DA Edmonds, **JP Harmon**, and AR Ives. 2013. Multilevel statistical models and the analysis of experimental data. *Ecology* 94:1479-1486.
54. Whalen, R and **JP Harmon**. 2012. *Rag1* aphid resistant soybeans alter the movement and distribution of soybean aphid (Hemiptera: Aphididae). *Environmental Entomology* 41:1426-1434.
55. Ballman, ES, K Ghising, DA Prischmann-Voldseth, and **JP Harmon**. 2012. Factors contributing to the poor performance of a soybean aphid parasitoid (Hymenoptera: Braconidae) on an herbivore resistant soybean cultivar. *Environmental Entomology* 41:1417-1425.
56. Ghising, KJ, **JP Harmon**, PB Beauzay, DA Prischmann-Voldseth, TC Helms, PJ Ode, and JJ Knodel. 2012. Impact of *Rag1* aphid resistant soybeans on *Binodoxys communis* (Hymenoptera: Braconidae), a parasitoid of soybean aphid (Hemiptera: Aphididae). *Environmental Entomology* 41:282-288.
57. Harris, MO, TP Freeman, KM Anderson, **JP Harmon**, JA Moore, SA Payne, O Rohfritsch and JJ Stuart. 2012. Hessian fly *Avirulence* gene loss-of-function defeats plant resistance without compromising the larva's ability to induce a gall tissue. *Entomologia Experimentalis et Applicata* 145:238-249.
58. Werling, BP, **J Harmon**, C Straub, and C Gratton. 2012. Influence of native North American prairie grasses on predation of an insect herbivore of potato. *Biological Control* 61:15-25.
59. Herlihy, MV, RG Van Driesche, MR Abney, J Brodeur, AB Bryant, RA Casagrande, DA Delaney, T Elkner, SJ Fleischer, RL Groves, DS Grunner, **JP Harmon**, GE Heimpel, TP Kuhar, C Maund, RD Olmstead, AM Seaman, M Skinner, R Weinziel, KV Yeangan, S Zendrei. 2012 Distribution of *Cotesia rubecula* (Hymenoptera: Braconidae) and its

- displacement of *Cotesia glomerata* (Hymenoptera: Braconidae) in Eastern North America. *Florida Entomologist* 95:458-464.
60. **Harmon, JP**, AC Ganguli, and M Solga. 2011. An overview to pollination in rangelands: who, why, and how. *Rangelands* 33(3):4-8.
61. Meisner, M, **JP Harmon**, and AR Ives. 2011. Response of coccinellid larvae to conspecific and heterospecific larval tracks: a mechanism that reduces cannibalism and intraguild predation. *Environmental Entomology* 40:103-110.
62. Meisner, M, **JP Harmon**, CT Harvey, and AR Ives. 2011. Intraguild predation on the parasitoid *Aphidius ervi* by the generalist predator *Harmonia axyridis*: The threat and its avoidance. *Entomologia Experimentalis et Applicata* 138:193-201.
63. **Harmon, JP**, NA Moran, and AR Ives. 2009. Species response to environmental change: Impacts of food-web interactions and evolution. *Science* 323:1347-1350.
64. **Harmon, JP**, A Hyden, and DA Andow. 2008. Isolation enhances mating propensity in *Coleomegilla maculata* (Coleoptera: Coccinellidae). *Journal of Insect Behavior* 21:495-504.
65. Francke, DL, **JP Harmon**, CT Harvey, and AR Ives. 2008. Pea aphid dropping behavior diminishes foraging efficiency of multiple life stages of a predatory ladybeetle. *Entomologia Experimentalis et Applicata* 127:118-124.
66. **Harmon, JP**, E Stephens, and J Losey. 2007. The decline of native coccinellids (Coleoptera: Coccinellidae) in the United States and Canada. *Journal of Insect Conservation* 11:85-94.
67. Meisner, M, **JP Harmon**, and AR Ives. 2007. Presence of an unsuitable host diminishes the competitive superiority of an insect parasitoid: a distraction effect. *Population Ecology* 49:347-355.
68. **Harmon JP** and DA Andow. 2007. Behavioral mechanisms underlying ants' density-dependent deterrence of aphid-eating predators. *Oikos* 116:1030-1036.
69. Daugherty MP, **JP Harmon**, and CJ Briggs. 2007. Trophic supplements to intraguild predation. *Oikos* 116:662-677.
70. Rosenheim JA and **JP Harmon**. 2006. The influence of intraguild predation on the suppression of a shared prey population: an empirical reassessment. In: Brodeur, J. and Boivin, G. (eds.), *Trophic and Guild Interactions in Biological Control*. Springer, Dordrecht. pp. 1-20.
71. **Harmon, JP** and DA Andow. 2004. Indirect effects between shared prey: Predictions for biological control. *Biocontrol* 49:605-626.
72. White, JA, **JP Harmon**, and DA Andow. 2004. Ecological context for examining transgenic crops and their effects on crop production. *Journal of Crop Improvement* 12:457-489.
73. **Harmon, JP**, EE Hladilek, JL Hinton, TJ Stodola, and DA Andow. 2003. Herbivore response to vegetational diversity: Spatial interaction of resources and natural enemies. *Population Ecology* 45:75-81.

74. **Harmon, JP**, JA White, and DA Andow. 2003. Oviposition behavior of *Ostrinia nubilalis* (Lepidoptera: Crambidae) in response to potential intra- and interspecific interactions. *Environmental Entomology* 32:334-339.
75. **Harmon, JP**, AR Ives, A Olson, K Ruwald, K Gross, and JE Losey. 2000. *Coleomegilla maculate* (Coleoptera: Coccinellidae) predation on pea aphids promoted by proximity to dandelions. *Oecologia* 125:543-548.
76. Schellhorn, NA, **JP Harmon**, and DA Andow. 2000. Using cultural practices to enhance insect pest control by natural enemies. In J. E. Rechcigl, N. A. Rechcigl (eds.) *Insect Pest Management: Techniques for Environmental Protection*. Lewis Publishers, Boca Raton, FL. pp. 147-170.
77. **Harmon, JP**, JE Losey, and AR Ives. 1998. The role of vision and color in the close proximity foraging behavior of four coccinellid species. *Oecologia* 115:287-292.
78. Losey, JE, AR Ives, **JP Harmon**, F Ballantyne, and C Brown. 1997. A polymorphism maintained by opposite patterns of parasitism and predation. *Nature* 388:269-272.
79. Schooler, S, AR Ives, and **JP Harmon**. 1996. Hyperparasitoid aggregation in response to variation in *Aphidius ervi* host density at three spatial scales. *Ecological Entomology* 21:249-258.

Other Publications

1. **Harmon JP**. 2018. Book review of a natural history of ladybird beetles. *American Entomologist* 64:125-126.
2. Barton, BT and **J Harmon**. 2017. Global change and insects: everything connects to everything else. *Current Opinions in Insect Science*, 23, v-vii.
3. Shajahan, S, S Sivarajan, M Maharlooei, S Bajwa, **JP Harmon**, J Nowatzki, C Igathinathane. 2016. Identification and counting of soybean aphids from digital images using particle separation and shape classification. ASABE Paper No 162462927.
4. Maharlooei M, S Sivarajan, SG Bajwa, **JP Harmon**, J Nowatzki. Digital imaging technique to detect and count aphids in soybeans. 18th World Congress of CIGR, International Commission of Agricultural and Biosystems Engineering. Beijing, China, September 2014.
5. **Harmon, JP** and R Whalen. 2012. A new take on a classic insect ecology text. *Ecology* 93(6):1494-1495.
6. Ganguli, AC and **JP Harmon**. 2011. An introduction to the special issue on pollinators. *Rangelands* 33(3):3.
7. **Harmon, JP** and DA Andow. 2003. Alternative foods as a mechanism to enhance a generalist ladybird's predation of target prey. In: Van Driesche, R. G. (ed.) Proceedings of the First International Symposium on Biological Control of Arthropods, January 14-18, 2002. Honolulu, Hawaii, USA. U. S. Department of Agriculture, Forest Service, FHTET-03-05, Morgantown, West Virginia, USA, pp. 244-249.
8. **Harmon, JP** and DA Andow. 2001. Review of *Theoretical Approaches to Biological Control*. *Quarterly Review of Biology* 76:110.

Research Grants & Fellowships

1. **Harmon, J**, T Hovick, K Sedivec, M Meehan, C Byrd, C Augustin, B Geaumont, T Seaborn, D Fogarty. 2025-2027. Virtual fencing to support livestock production and conservation of grassland wildlife and invertebrates. National Resource Conservation Service's Conservation Innovation Grants (CIG) Classic Program. Total Budget \$2,184,768 (\$1,092,384 Total Federal Funds).
2. **Harmon, J**, T Hovick, K Sedivec. 2024-2025. North Dakota soybeans & pollinators: Beginning to investigate their potential interactions and mutual benefits (Year 2). North Dakota Soybean Council. Total Budget \$16,754.
3. **Harmon, J**, K Sedivec, T Hovick, M Meehan, Z Carlson, C Augustin (2024-2025) Using emerging precision technologies to improve management and conservation on ND rangelands. AES Precision Agriculture. \$100,000.
4. **Harmon, J**, T Hovick, K Sedivec. 2023-2024. North Dakota soybeans & pollinators: Beginning to investigate their potential interactions and mutual benefits. North Dakota Soybean Council. Total Budget \$15,028.
5. **Harmon, J**, M Berti, B Geaumont, T Hovick, K Kral-O'Brien, R Limb, D McGranahan, K Sedivec. 2020-2024. Managing disturbance for multi-functional rangelands: Livestock, plant, and pollinator responses to management strategies that differentially use fire and grazing. USDA-AFRI. \$499,242.
6. Gasch, C, A Wick, **JP Harmon**, T DeSutter, S Banerjee. 2020-2021. Managing salinity with cover crops: a whole system response (year 4). North Dakota Corn Council. Total Budget \$33,870.
7. Gasch, C, A Wick, **JP Harmon**, T DeSutter, S Banerjee. 2020-2021. Managing salinity with cover crops: a whole system response (year 4). North Dakota Soybean Council. Total Budget \$33,870.
8. **Harmon, J**, C Gasch, K Kral-O'Brien, T Hovick. 2019-2020. Cascading effects of a changing climate on ecosystem engineers: False spring impacts on earthworms and soil health. NDSU EPSCoR Seed Award. \$10,000.
9. Geaumont, B, T Hovick, **J Harmon**, C Otto, J Zeleznik, K Kral-O'Brien. 2019-2023. Examining the role of shelterbelts (tree plantings) on early-season honey production and hive growth of honeybees in the North Central Region (NCR). NCR-SARE. Total Budget \$199,922.
10. Geaumont, B, T Hovick, **J Harmon**. 2019-2021. NDAES Precision Agriculture Graduate Research Assistantship. North Dakota Agricultural Experiment Station. Total Budget \$37,200.
11. Gasch, C, A Wick, **JP Harmon**, T DeSutter. 2019-2020. Managing salinity with cover crops: a whole system response (year 3). North Dakota Corn Council. Total Budget \$57,842.
12. Gasch, C, A Wick, **JP Harmon**, T DeSutter. 2019-2020. Managing salinity with cover crops: a whole system response (year 3). North Dakota Soybean Council. Total Budget \$57,962.
13. Hovick, T, B Geaumont, R Limb, **J Harmon**, D McGranahan. 2018-2022. Enhancing floral resources for high conservation priority pollinators. North Dakota Game and Fish.

Total Budget \$53,302.

14. Hovick, T, **J Harmon**, R Limb, B Geaumont, M Ostlie. 2018-2020. Enhancing dry bean production with adjacent pollinator habitats: Quantifying the range and extent of benefits. North Dakota Department of Agriculture. \$127,276.

15. Gasch, C, A Wick, **JP Harmon**, T DeSutter. 2018-2019. Managing salinity with cover crops: a whole system response (year 2). North Dakota Corn Council. Total Budget \$54,505.

16. Gasch, C, A Wick, **JP Harmon**, T DeSutter. 2018-2019. Managing salinity with cover crops: a whole system response (year 2). North Dakota Soybean Council. Total Budget \$54,625.

17. Gasch, C, **J Harmon**, T DeSutter, A Wick. 2017-2019. Defining saline patches in row crop fields: biotic communities and implications for zone management. NDSU Agriculture Experiment Station. Total Budget \$63,592.

18. Gasch, C, A Wick, **JP Harmon**, T DeSutter. 2017-2018. Managing salinity with cover crops: a whole system response. North Dakota Corn Council. Total Budget \$45,121.

19. Gasch, C, A Wick, **JP Harmon**, T DeSutter. 2017-2018. Managing salinity with cover crops: a whole system response. North Dakota Soybean Council. Total Budget \$45,121.

20. Limb, R, T Hovick, and **JP Harmon**. 2016-2021. Monitoring native pollinator communities throughout North Dakota: Status and management considerations for species of special concern. North Dakota Department of Agriculture. Total Budget \$699,100.

21. Wick AF, **JP Harmon**, T DeSutter. 2016. Interpretation and sharing of information from soybean and pest pressure response to salinity (Year 4). North Dakota Soybean Council. Total Budget \$33,571.

22. **JP Harmon**, Wick AF, DA Prischmann-Voldseth, T DeSutter. 2015. Influence of soil salinity gradients on corn production and arthropod pest infestations (Year 3). North Dakota Corn Council. Total Budget \$45,038.

23. **JP Harmon**, Wick AF, DA Prischmann-Voldseth, T DeSutter. 2015. From the ground up: how do soil salinity gradients damage soybeans, contribute to arthropod pest infestations and impact soil nitrogen reserves? (Year 3). North Dakota Soybean Council. Total Budget \$45,413.

24. Bajwa S, **JP Harmon**, J Nowatzki, S Sivarajan. 2015. Digital imaging technique to detect and count aphids in soybeans under field conditions. North Dakota Soybean Council. Total Budget \$29,810.

25. Limb R, T Hovick, **JP Harmon**, and K Kral. 2015-2020. Influence of land-use practices on site occupancy of monarchs (*Danaus plexippus*), Dakota Skippers (*Hesperia dacotae*) and other prairie dependent butterflies. US Fish & Wildlife Service. Total Budget \$87,441.

26. Limb R, T Hovick, and **JP Harmon**. 2015-2017. Influence of land-use practices on site occupancy of Dakota Skippers and other prairie dependent butterflies. North Dakota Game and Fish Department. Total Budget \$78,446.

27. Wick AF, DA Prischmann-Voldseth, **JP Harmon**. 2014. Influence of soil salinity

- gradients on corn production and arthropod pest infestations (Year 2). North Dakota Corn Council. Total Budget \$72,540.
28. Wick AF, DA Prischmann-Voldseth, **JP Harmon**. 2014. From the ground up: how do soil salinity gradients damage soybeans, contribute to arthropod pest infestations and impact soil nitrogen reserves? (Year 2). North Dakota Soybean Council. Total Budget \$72,924.
29. Bajwa S, **JP Harmon**, J Nowatzki, S Sivarajan, M Maharlooei. 2014. Digital imaging technique to detect and count aphids in soybeans. North Dakota Soybean Council. Total Budget \$24,595.
30. Ives AR, VC Radeloff, **JP Harmon**, and KM Oliver. 2013-2017. The role of taxonomic, functional, genetic, and landscape diversity in food web responses to a changing environment. National Science Foundation (NSF) Total Budget \$1,975,237.
31. **Harmon JP** and DA Prischmann-Voldseth. 2013. Managing current and emerging soybean insect pests in North Dakota. North Dakota Soybean Council. Total Budget \$127,235.
32. Wick AF, DA Prischmann-Voldseth, **JP Harmon**. 2013. Influence of soil salinity gradients on corn production and arthropod pest infestations. North Dakota Corn Council. Total Budget \$53,219.
33. Wick AF, DA Prischmann-Voldseth, **JP Harmon**. 2013. From the ground up: how do soil salinity gradients damage soybeans, contribute to arthropod pest infestations and impact soil nitrogen reserves? North Dakota Soybean Council. Total Budget \$58,213.
34. Tilmon KT, E Hodgson, M O'Neal, B Bonning, B McCornack, J Reese, D Wang, DA Prischmann, **JP Harmon**, JJ Knodel, R Mian, A Michel, C Krupke, B Diers, M Hudson, C Hill, R Giordano, D Voegtlin, GE Heimpel, B Potter, T Hunt, T Heng-Moss, D Hogg, E Cullen, P Mitchell, K Hopper, L Hesler. 2012-2014. Soybean aphid: management, resistance, and outreach in the North Central Region. North Central Soybean Research Program. Total Budget \$2,100,000.
35. Prischmann-Voldseth, DA and **JP Harmon**. 2012. Using environmental variables to predict soybean aphid problems (2nd year of multi-year project). North Dakota Soybean Council. Total Budget \$105,998.
36. **Harmon JP** and DA Prischmann-Voldseth. 2011. Using environmental variables to predict soybean aphid problems. North Dakota Soybean Council. Total Budget \$75,032.
37. Knodel JJ and **JP Harmon**. 2010. Biological control and aphid resistant cultivars. North Dakota Soybean Council. Total Budget \$40,3505.
38. Prischmann-Voldseth, DA and **JP Harmon**. 2010. Integrating plant resistance and natural enemies for soybean aphid control. North Dakota Soybean Council. Total Budget \$49,446.
39. Ganguli, AC and **JP Harmon**. 2010. Rangeland pollinators: a special issue of Rangelands. The Xerces Society for Invertebrate Conservation. Total Budget \$3,000.
40. Ganguli, AC and **JP Harmon**. 2010. Rangeland pollinators: a special issue of Rangelands. USDA-Natural Resources Conservation Service West National Technical Support Center. Total Budget \$5,000.

41. **JP Harmon**. 2003. The Effects of Alternative Prey on the Dynamics of Intraguild Predation. USDA National Research Initiative Postdoctoral Fellowship. Total Budget \$90,000

Remainder to JP Harmon

42. University of Minnesota Doctoral Dissertation Fellowship	2001-2002	\$25,516
43. Minnesota Center for Community Genetics Research Grant	2001	\$2,500
44. Minnesota Center for Community Genetics Research Grant	2000	\$2,000
45. Minnesota Center for Community Genetics Research Grant	1999	\$2,000
46. Environmental Protection Agency Science to Achieve Results (STAR) Graduate Fellowship	1998-2001	\$96,418
47. Minnesota Center for Community Genetics Research Grant	1998	\$2,000
48. Dayton-Wilke Natural History Award	1998	\$300
49. University of Minnesota Graduate School Fellowship	1997	\$23,500

Invited Presentations & Symposia

1. Robertson, B, **J Harmon**, K Sedivec. Exploring insect utilization of decaying matter and the potential benefits provided to working landscapes. 2023 Joint Annual Meeting of the North Central Branch and Southwestern Branch of the Entomological Society of America. Oklahoma City, OK, April 2023.
2. Pei, CK, T Hovick, H Zheng, **J Harmon**, B Geaumont, R Limb. A town big enough for the both of us? Understanding managed and wild bee (Hymenoptera: Apoidea: Anthophila) interactions with North Dakota's novel grassland floral resources. 2023 Joint Annual Meeting of the North Central Branch and Southwestern Branch of the Entomological Society of America. Oklahoma City, OK, April 2023.
3. Johnson, ER, **JP Harmon**, TJ Hovick, and KK Sedivec. Milkweed (*Asclepias* spp.) in rangelands: saving a multi-national icon. University of North Dakota Brown Paper Bag Lunch Series. Grand Forks, ND, November 2022.
4. Antonsen, A, **J Harmon**, C Pei, T Hovick. Host plants and nectar plants: How are butterflies responding and what are they using. Annual Meeting of the Entomological Society of America. St. Louis, MO, November 2019.
5. Kral-O'Brien, K, A Antonsen, T Hovick, **J Harmon**. Getting the most out of field surveys: How method selection impacts butterfly survey data. Annual Meeting of the Entomological Society of America. St. Louis, MO, November 2019.
6. Cutter, J, T Hovick, B Geaumont, D McGranahan, **J Harmon**, R Limb. Influence of herbivore-type on flower and butterfly abundance in former-CRP fields managed with patch-burn grazing. Annual Meeting of the Entomological Society of America. St. Louis, MO, November 2019.
7. Karasch, B, T Hovick, **J Harmon**, R Limb, K Sedivec. Monarch and regal fritillary behaviors in grasslands with restored disturbance regimes. Annual Meeting of the Entomological Society of America. St. Louis, MO, November 2019.
8. Antonsen A, **J Harmon**, T Hovick, R Limb, B Geaumont, C Pei. Determining spatial and temporal distributions of grassland butterflies through statewide monitoring. Society for Range Management Annual Meeting. Minneapolis, MN, February 2019.

9. Karasch, B, T Hovick, **J Harmon**, R Limb, K Sedivec. Estimates of butterfly density in mixed-grass prairie with restored disturbance regimes. Society for Range Management Annual Meeting. Minneapolis, MN, February 2019.
10. Duquette, C, T Hovick, E Limb, D McGranahan, **J Harmon**, B Geaumont. Fire and grazing alters flower phenology and resource use by bumblebees. Society for Range Management Annual Meeting. Minneapolis, MN, February 2019.
11. Cutter, J, T Hovick, B Geaumont, D McGranahan, R Limb, **J Harmon**. Grazer type impacts flower and pollinator abundance in former CRP fields managed with patch-burn grazing. Society for Range Management Annual Meeting. Minneapolis, MN, February 2019.
12. Kral, K, T Hovick, R Limb, K Sedivec, **J Harmon**. Reducing Kentucky bluegrass cover increases rangeland biodiversity across multiple trophic levels. Society for Range Management Annual Meeting. Minneapolis, MN, February 2019.
13. Pei, C, T Hovick, R Limb, **J Harmon**, A Antonsen. Statewide monitoring of bee communities across North Dakota. Society for Range Management Annual Meeting. Minneapolis, MN, February 2019.
14. Hovick, T, R Limb, **J Harmon**, B Geaumont, C Pei, A Antonsen. NDSU Pollinator Research. Good Bugs Workshop, NDSU Carrington, ND, July 2018.
15. Hovick, T, R Limb, **J Harmon**, B Geaumont, C Pei, A Antonsen. Investigation of ND Pollinators. Audobon Society, Fargo, ND, April 2018.
16. Hovick, T, K Kral, R Limb, **J Harmon**. From birds to butterflies: the evolution and use of line transect distance sampling. North Central Branch of the Entomological Society of America Annual Meeting. Madison, WI, March 2018.
17. Kral, K, T Hovick, R Limb, **J Harmon**. Comparing statistically-based survey methods to improve grassland butterfly conservation. North Central Branch of the Entomological Society of America Annual Meeting. Madison, WI, March 2018.
18. Hovick, T, R Limb, **J Harmon**, B Geaumont, C Pei, A Antonsen. NDSU Statewide Pollinator Project. Spring NDSU Extension Conference, Fargo, ND, February 2018.
19. Hovick, T, R Limb, **J Harmon**, B Geaumont, C Pei, A Antonsen. Year 1 Outcomes of NDSU Statewide Pollinator Project. USFWS Meeting, Mandan, ND, February 2018.
20. **Harmon JP**. Global change and insects: diverse changes and effects. University of Minnesota, Department of Entomology Seminar Series. St. Paul, MN, September 2017.
21. **Harmon JP**. Connecting resistance and biological control through time and space. North Central Branch of the Entomological Society of America Annual Meeting. Indianapolis, IN, June 2017.
22. **Harmon JP**, K Kral, C Bendel, T Hovick, R Limb. Why do we need research on the conservation of pollinators in working landscapes? Society for Range Management Annual Meeting. St. George, UT, February 2017.
23. Bendel, C, T Hovick, R Limb, **JP Harmon**. Investigating plant-pollinator networks to evaluate the influence of grassland management practices on ecosystem stability. Society for Range Management Annual Meeting. St. George, UT, February 2017.

24. Kral, K, T Hovick, R Limb, **JP Harmon**. Initial Investigation of Landscape Influences on Grassland Butterfly Densities in the Dakotas. Society for Range Management Annual Meeting. St. George, UT, February 2017.
25. **Harmon, JP**. In the heat of the night: How warming at night can affect an aphid and its predator. Annual Meeting of the Entomological Society of America. Minneapolis, MN. November 2015.
26. **Harmon, JP**. Incorporating active learning in your teaching: You too can hate lecturing. ASA, CSSA, & SSSA International Annual Meetings. Minneapolis, MN. November 2015.
27. Kral K, R Limb, T Hovick, **J Harmon**. Preliminary density and occupancy estimates for butterflies in the Northern Great Plains. Annual Meeting of the North Dakota Society for Range Management. Bismarck, ND, October 2015.
28. Ives AR, VC Radloff, KM Oliver, **JP Harmon**. The role of taxonomic, functional, genetic, and landscape diversity in food web responses to a changing environment. 2014 NASA Biodiversity and Ecological Forecasting Team Meeting. Silver Springs, MD, May 2014
29. **Harmon JP**. Observations of a sit-and-wait scientist: Examples of how individual behaviors can influence the population dynamics and species interactions of insects in agroecosystems. Annual Meeting of the North Central Branch of the Entomological Society of America. Des Moines, IA, March 2014.
30. **Harmon JP**. Can studies of individuals and populations help inform how climate change may affect aphid natural enemy communities? Annual Meeting of the North Central Branch of the Entomological Society of America. Des Moines, IA, March 2014.
31. Dreyer J and **JP Harmon**. Livin' on the edge: The importance of locomotion across habitat boundaries. Annual Meeting of the North Central Branch of the Entomological Society of America. Des Moines, IA, March 2014.
32. **Harmon, JP**. Direct and indirect effects of climate change on the soybean aphid, *Aphis glycines*. Program Symposium: Linkages between climate change and global insect pestilence: from theory to practice. Annual Meeting of the Entomological Society of America. Knoxville, TN, November 2012.
33. **Harmon, JP**. How ecological and evolutionary forces could alter a species' response to climate change. Invited Departmental Seminar, Department of Ecology, Evolution, and Organismal Biology, Iowa State University. Ames, IA. March 2011.
34. **Harmon, JP**. Food-web interactions and selection modify how changing temperature alters aphid populations. Department of Entomology, University of Kentucky, Lexington, KY. September 2010
35. **Harmon, JP**. Could rapid evolution complicate how climate change affects species interactions? Annual Meeting of the Ecological Society of America, Pittsburgh, PA. August 2010.
36. **Harmon, JP**. How Climate Change Can Influence Insect Interactions and Biological Control: Interests of the New Insect Ecology Lab. School of Natural Resource Sciences Seminar Series; North Dakota State University, Fargo, ND, USA. December, 2009.

37. **Harmon, JP**, NA Moran, and AR Ives. Food-web interactions and evolution determine how an invasive species responds to environmental change. 1st International Entomophagous Insects Conference. Minneapolis, MN. July 2009.
38. Andow, DA, NA Schellhorn, and **JP Harmon**. Vegetational diversity and the third trophic level. 1st International Entomophagous Insects Conference. Minneapolis, MN. July 2009.
39. **Harmon, JP**. Ecological and evolutionary forces alter an insect pest's response to climate change. Department of Entomology, Purdue University. West Lafayette, IN. June 2009.
40. **Harmon, JP**. Incorporating ecological interactions to determine how aphids respond to changing temperatures. Department of Entomology, North Dakota State University. Fargo, ND. April 2009.
41. **Harmon, JP**. Predator-prey interactions in a community & environmental context. Department of Entomology, Kansas State University. Manhattan, KS. November 2007.
42. **Harmon, JP**. Predator-prey interactions in a community & environmental context. Department of Entomology, Penn State University. University Park, PA. October 2007.
43. **Harmon, JP**. Understanding species specific predator-prey-habitat interactions: Not all ladybugs are created equal. Department of Ecology and Evolutionary Biology, University of Arizona. Tucson, AZ. February 2007.
44. **Harmon, JP**. When natural enemies have multiple prey: indirect effects and the ecological mechanisms that shape them. Entomology Department, Iowa State University. Ames, IA. January 2007.
45. **Harmon, JP**. You mean we're not playing one-on-one? Predator-prey interactions in a community context. Entomology Department Seminar Series, University of Wisconsin. Madison, WI. November 2006.
46. **Harmon, JP**. Predation on multiple prey: indirect interactions, foraging behavior, and the functional response. Entomology Department, University of Maryland. College Park, MD. April 2005.
47. **Harmon, JP**. Predation on multiple prey: indirect interactions, foraging behavior, and the functional response. Center for Population Biology, University of California, Davis. Davis, CA. May 2004.
48. **Harmon, JP** and DA Andow. The indirect interactions among natural enemies and multiple prey. Annual Meeting of the Ecological Society of America. Savannah, GA. August 2003.
49. **Harmon, JP**. Decreasing insect pests by ecosystem management. Fourth National Integrated Pest Management Symposium. Indianapolis, IN. April 2003.
50. **Harmon, JP**. Biological control in a community context. Impress the President: Public Engagement and Research Initiatives. University of Minnesota Inauguration Event. Minneapolis, MN. February 2003.
51. **Harmon, JP** and DA Andow. The ecological mechanisms of shared predation. International Organization for Biological Control Symposium. Annual Meeting of the Entomological Society of America. Ft. Lauderdale, FL. November 2002.

52. **Harmon, JP** and DA Andow. Alternative foods as a mechanism to enhance a generalist ladybird's predation of target prey. First International Symposium on Biological Control of Arthropods. Honolulu, HI. January 2002.

Contributed Presentations

1. Clarke, J, T Hovick, K Sedivec, B Geaumont, **J Harmon**. Achieving diverse avian nesting requirements with heterogeneity-based grazing. NDSU Student Research Day. Fargo, ND, April 2024.
2. Clarke, J, T Hovick, K Sedivec, B Geaumont, E Kjaer, **J Harmon**. Cascading effects in rangeland management for avian conservation. Northern Plains Biological Symposium. Grand Forks, ND, March 2024.
3. Robertson, B, **J Harmon**, T Hovick, K Sedivec, B Geaumont. Examining overlap of honey and native bee presence and floral selection in cattle grazed rangelands. 2024 Annual Meeting of the North Central Branch of the Entomological Society of America. Fort Collins, CO, March 2024.
4. Clarke, J, T Hovick, K Sedivec, B Geaumont, E Kjaer, **J Harmon**. Cascading effects in rangeland management for avian conservation. North Dakota Chapter of the Wildlife Society Annual Meeting. Bismarck, ND, February 2024.
5. Robertson, B, **J Harmon**, T Hovick, K Sedivec, B Geaumont. The potential interaction of honey bees and native bees in cattle grazed rangelands. North Dakota Chapter of the Wildlife Society Annual Meeting. Bismarck, ND, February 2024.
6. Clarke, J, T Hovick, K Sedivec, **J Harmon**, B Geaumont. Enhancing avian territory quality with heterogeneity-based grazing regimes. 2024 Society for Range Management Annual Meeting, Sparks, NV, January 2024.
7. Clarke, J, T Hovick, K Sedivec, B Geaumont, **J Harmon**. Avian nesting communities and survival in a heterogeneity-based rotational grazing system. 2024 Society for Range Management Annual Meeting, Sparks, NV, January 2024.
8. Clarke, J, T Hovick, K Sedivec, B Geaumont, E Kjaer, **J Harmon**. Enhancing avian habitat quality using heterogeneity-based grazing practices. NDSU SNRS Symposium, Fargo, ND, November 2023.
9. Clarke, J, T Hovick, K Sedivec, B Geaumont, E Kjaer, **J Harmon**. Enhancing avian habitat quality with heterogeneity-based grazing strategies. 2023 Ecological Society of America Annual Meeting, Portland, OR, August 2023.
10. Kjaer, E, T Hovick, B Geaumont, **J Harmon**, R Limb, K Sedivec. Heterogeneity-based management reduces the impact of an invasive grass on native plant diversity. 2023 Ecological Society of America Annual Meeting, Portland, OR, August 2023.
11. Robertson, B, **J Harmon**, T Hovick, K Sedivec, B Geaumont. Bees and flower community responses following a drought in grazing landscapes. 2023 Joint Annual Meeting of the North Central Branch and Southwestern Branch of the Entomological Society of America. Oklahoma City, OK, April 2023.

12. Pei, CK, H Zheng, T Hovick, R Limb, **J Harmon**, B Geaumont. Guiding pollinator conservation plantings with regional bee-plant interaction data. 2023 Joint Annual Meeting of the North Central Branch and Southwestern Branch of the Entomological Society of America. Oklahoma City, OK, April 2023.
13. Johnson, ER, **JP Harmon**, TJ Hovick, KK Sedivec. Monarch (*Danaus plexippus* L.), milkweed (*Asclepias* spp.), and forb responses to variable rangeland grazing strategies. 2023 Joint Annual Meeting of the North Central Branch and Southwestern Branch of the Entomological Society of America. Oklahoma City, OK, April 2023.
14. Warcup, K, B Robertson, K Kral-O'Brien, **J Harmon**. Acetolysis modifications to process pollen swabbed from live bees. 2023 Joint Annual Meeting of the North Central Branch and Southwestern Branch of the Entomological Society of America. Oklahoma City, OK, April 2023.
15. Johnson, ER, EL Kjaer, **JP Harmon**, TJ Hovick, KK Sedivec. Smooth brome (*Bromus inermis*) competition has a stronger negative impact on milkweed (*Asclepias* spp.) availability for monarchs than cattle grazing. The Second Perennial Cool-Season Invasive Grasses of the Northern Great Plains Workshop. Fargo, ND, March 2023.
16. Kjaer, EL, TJ Hovick, RF Limb, B Geaumont, **JP Harmon**, KK Sedivec. Benefits from management are lost after several years in Kentucky bluegrass (*Poa pratensis*) invaded rangelands. The Second Perennial Cool-Season Invasive Grasses of the Northern Great Plains Workshop. Fargo, ND, March 2023.
17. Pei, CK, T Hovick, R Limb, **J Harmon**, B Geaumont. Invasive grass and litter accumulation constrain bee and plant diversity in altered grasslands. The Second Perennial Cool-Season Invasive Grasses of the Northern Great Plains Workshop. Fargo, ND March 2023.
18. Robertson, B, **JP Harmon**, TJ Hovick, KK Sedivec, BA Geaumont. Bee and floral composition in various grazing regimes following a drought year. North Dakota Chapter of the Wildlife Society Annual Meeting. Bismarck, ND, February 2023.
19. Johnson, ER, **JP Harmon**, TJ Hovick, and KK Sedivec. Cattle grazing of common (*Asclepias syriaca*) and showy (*A. speciosa*) milkweed differs with rangeland management strategy and increases throughout the growing season. North Dakota Chapter of the Wildlife Society Annual Meeting. Bismarck, ND, February 2023.
20. Clarke, J, T Hovick, K Sedivec, B Geaumont, E Kjaer, and **J Harmon**. Augmenting avian habitat quality with heterogeneity-based grazing practices. North Dakota Chapter of the Wildlife Society Annual Meeting. Bismarck, ND, February 2023.
21. Kjaer, EL, RF Limb, B Geaumont, **JP Harmon**, TJ Hovick, KK Sedivec. Assessing the drivers and impacts of invasive cool-season grasses on rangeland plant communities. Society for Rangeland Management. Boise, ID, February 2023.
22. Clarke, J, T Hovick, K Sedivec, B Geaumont, E Kjaer, and **J Harmon**. Avian nesting communities and success in a heterogeneity-based rotational grazing system. Society for Rangeland Management. Boise, ID, February 2023.

23. Keen, H, B Geaumont, T Hovick, C Otto, J Harmon, J Zeleznik. Managed pollinator use of shelterbelt floral resources. North Dakota Chapter of the Wildlife Society Annual Meeting. Bismarck, ND, February 2023.
24. Johnson, ER, **JP Harmon**, TJ Hovick, and KK Sedivec. Monarch butterfly (*Danaus plexippus* L.) response to variable rangeland grazing strategies during both extreme drought and normal conditions. Natural Areas Association. Duluth, MN, September 2022.
25. Robertson, B, **JP Harmon**, TJ Hovick, KK Sedivec, RF Limb, BA Geaumont. Bee community abundance, diversity, and resource use under various grazing regimes. Natural Areas Association. Duluth, MN, September 2022.
26. Kjaer, EL, RF Limb, B Geaumont, **JP Harmon**, TJ Hovick, KK Sedivec. A tale of grazing and fire: beta diversity and niche availability in a working landscape. Natural Areas Association. Duluth, MN, September 2022.
27. Kjaer, EL, RF Limb, B Geaumont, **JP Harmon**, TJ Hovick, KK Sedivec. A tale of two scales: landscape-level heterogeneity impacts local heterogeneity and beta diversity. Ecological Society of America and Canadian Society for Ecology and Evolution Joint Meeting. Quebec, Canada, August 2022.
28. Johnson, ER, **JP Harmon**, TJ Hovick, KK Sedivec, and RF Limb. Monarch butterfly (*Danaus plexippus* L.) response to variable rangeland grazing strategies during extreme drought. North Dakota Academy of Science Annual Meeting. Fargo, ND, April 2022.
29. Robertson, B, **JP Harmon**, TJ Hovick, KK Sedivec, RF Limb, BA Geaumont. Bee community abundance, diversity, and resource use under various grazing regimes. North Dakota Academy of Science Annual Meeting. Fargo, ND, April 2022.
30. Clarke, TJ Hovick, KK Sedivec, RF Limb, BA Geaumont, **JP Harmon**. Breeding bird nesting abundance and success in a modified twice-over rest-rotation grazing system. North Dakota Academy of Science Annual Meeting. Fargo, ND, April 2022.
31. Johnson, ER, **JP Harmon**, TJ Hovick, KK Sedivec, and RF Limb. Monarch (*Danaus plexippus* L.), milkweed (*Asclepias* spp.), and forb response to reintroducing grazing and fire disturbance regimes in managed rangelands. North Dakota State University Student Research Day. Fargo, ND, April 2022.
32. Robertson, B, **JP Harmon**, TJ Hovick, KK Sedivec, RF Limb, BA Geaumont. Bee community abundance, diversity, and resource use under various grazing regimes. North Dakota State University Student Research Day. Fargo, ND, April 2022.
33. Clarke, TJ Hovick, KK Sedivec, RF Limb, BA Geaumont, **JP Harmon**. Breeding bird nesting abundance and success in a modified twice-over rest-rotation grazing system. North Dakota State University Student Research Day. Fargo, ND, April 2022.
34. Kjaer, EL, RF Limb, B Geaumont, **JP Harmon**, TJ Hovick, K Sedivec. Reducing invasive grass thatch using different rangeland management strategies. North Dakota State University Student Research Day. Fargo, ND, April 2022.
35. Robertson, B, **JP Harmon**, TJ Hovick, KK Sedivec, RF Limb, BA Geaumont. Bee community abundance, diversity, and resource use under various grazing regimes.

North Central Branch of the Entomological Society of America Annual Meeting. Minneapolis, MN, March 2022.

36. Robertson, B, **JP Harmon**. Bee community response to rangeland management. North Dakota Student University Three-Minute Thesis Competition. Fargo, ND, February, 2022.

37. Johnson, ER, **JP Harmon**, TJ Hovick, KK Sedivec, and RF Limb. A piece of cake: Updated monarch (*Danaus plexippus* L.) conservation in North Dakota rangelands. North Dakota Student University Three-Minute Thesis Competition. Fargo, ND, February, 2022.

38. Clarke, TJ Hovick, KK Sedivec, RF Limb, **JP Harmon**, BA Geaumont. Breeding bird nesting abundance and success in a modified twice-over rest-rotation grazing system. North Dakota Chapter of the Wildlife Society. Bismarck, ND, February 2022.

39. Robertson, B, **JP Harmon**, TJ Hovick, KK Sedivec, RF Limb, BA Geaumont. Bee community abundance, diversity, and resource use under various grazing regimes. North Dakota Chapter of the Wildlife Society. Bismarck, ND, February 2022.

40. Johnson, ER, **JP Harmon**, TJ Hovick, KK Sedivec, RF Limb. Monarch butterflies (*Danaus plexippus* L.) benefit from variable grazing strategies in rangelands during extreme drought. Society for Rangeland Management. Albuquerque, NM, February 2022.

41. Pei, CK, TJ Hovick, RF Limb, **JP Harmon**, and BA Geaumont. The grassland bees of North Dakota: Results from a statewide survey provides North Dakota with first-of-its-kind dataset for the state. Society for Rangeland Management. Albuquerque, NM, February 2022.

42. Clarke, TJ Hovick, KK Sedivec, RF Limb, **JP Harmon**, BA Geaumont. Breeding bird nesting abundance and success in a modified twice-over rest-rotation grazing system. Society for Rangeland Management. Albuquerque, NM, February 2022.

43. Kjaer, EL, RF Limb, B Geaumont, **JP Harmon**, TJ Hovick, K Sedivec. Management strategies to reduce the thatch layer created by an invasive grass species. Society for Rangeland Management. Albuquerque, NM, February 2022.

44. Kjaer, EL, RF Limb, M Hammel, B Geaumont, **JP Harmon**, TJ Hovick, K Sedivec. Fire drives patch selection by cattle in a patch-burn grazing program. Society for Rangeland Management. Albuquerque, NM, February 2022.

45. Keen, H, B Geaumont, T Hovick, C Otto, **J Harmon**. Honey bee use of shelterbelt tree and shrub plantings in the Northern Great Plains. Society for Rangeland Management. Albuquerque, NM, February 2022.

46. Zralka, KJ, TJ Hovick, BA Geaumont, **JP Harmon**. Time-since-fire and livestock species influence butterfly populations in post-Conservation Reserve Program landscapes. Society for Rangeland Management. Albuquerque, NM, February 2022.

47. Robertson, B, **JP Harmon**, TJ Hovick, KK Sedivec, RF Limb, BA Geaumont. Bee community abundance, diversity, and resource use under various grazing regimes. Northern Plains Biological Symposium. Fargo, ND, October 2021.

48. Clarke, TJ Hovick, KK Sedivec, RF Limb, **JP Harmon**, BA Geaumont. Breeding bird nesting abundance and success in a modified twice-over rest-rotation grazing system. Northern Plains Biological Symposium. Fargo, ND, October 2021.
49. **Harmon JP**, KC Kral-O'Brien, AK Antonsen. Can snapshot behavioral observations inform within- and across-year weather related changes in butterfly behavior? North Central Branch of the Entomological Society of America Annual Meeting. Virtual Meeting, June 2021.
50. Kral-O'Brien, KC, TJ Hovick, and **JP Harmon**. Bees (Hymenoptera: Apidae) may benefit self-pollinating crops, but do self-pollinating crops benefit bees? North Central Branch of the Entomological Society of America Annual Meeting. Virtual Meeting, June 2021.
51. Kral-O'Brien, K, **J Harmon**. Dispersal behavior helps in conservation management if utilized correctly and often. Annual Meeting of the Entomological Society of America. Virtual Meeting, November 2020.
52. Pei, CK, T Hovick, R Limb, **J Harmon**, B Geaumont. Indirect relationships between invasive grasses and bee communities in the Northern Great Plains. Annual Meeting of the Entomological Society of America. Virtual Meeting, November 2020.
53. Pei, CK, T Hovick, C Duquette, **J Harmon**, R Limb, B Geaumont. Two common bee-sampling methods capture different bee communities. Annual Meeting of the Entomological Society of America. Virtual Meeting, November 2020.
54. Cutter, JC, T Hovick, B Geaumont, DA McGranahan, RF Limb, **JP Harmon**. Influence of grazer-type on flower and pollinator abundance in former-CRP fields managed with patch-burn grazing. Society for Range Management Annual Meeting. Denver, CO. February 2020.
55. Pei, CK, T Hovick, R Limb, **J Harmon**, B Geaumont. Indirect relationships between invasive grasses and bee communities in the Northern Great Plains. Society for Range Management Annual Meeting. Denver, CO. February 2020.
56. Ries M, C Gasch, **J Harmon**. Effect of salinity on microbial community structure. Manitoba Soil Science Society General Meeting. Winnipeg, MB, February 2020.
57. Antonsen, A, **J Harmon**. Sweet nectar: Differential floral use among butterflies of the northern Great Plains. Annual Meeting of the Entomological Society of America. St. Louis, MO, November 2019.
58. Karasch, B, T Hovick, R Limb, **J Harmon**, K Sedivec. Estimates of butterfly density in mixed-grass prairie with restored disturbance regimes. Annual Meeting of the Entomological Society of America. St. Louis, MO, November 2019.
59. Gasch, C, **J Harmon**, T DeSutter, A Wick. Beyond salt chemistry: how the whole soil-plant-insect system responds to salinity and what it means for crop production and management. Soil Ecology Society Biennial Meeting. Toledo, OH, June 2019.
60. Ries, M, C Gasch, **J Harmon**. Effect of salinity on soil nematode habitat and community structure. Soil Ecology Society Biennial Meeting. Toledo, OH, June 2019.

61. Gasch, C, **J Harmon**, T DeSutter, A Wick. Beyond salt chemistry: how the whole soil-plant-insect system responds to salinity and what it means for crop production and management. Manitoba Soil Science Society Annual Meeting, Winnipeg, MB, Canada, February 2019.
62. Gasch, C, **J Harmon**, T DeSutter, A Wick. Beyond salt chemistry: how the whole soil-plant-insect system responds to salinity and what it means for crop production and management. International Meeting of the ASA-CSSA-SSSA. Baltimore, MD, November 2018.
63. Croat, S, T DeSutter, C Gasch, F Casey, P O'Brien, **J Harmon**. Phosphorus dynamics in soils treated with thermal remediation. Annual School of Natural Resource Science Student Symposium. Fargo, ND, October 2018.
64. Cutter, J, T Hovick, B Geaumont, D McGranahan, **J Harmon**. Sheep dramatically reduce flower abundance in former CRP fields managed with patch-burn grazing, but is that bad for bees & butterflies? Annual School of Natural Resource Science Student Symposium. Fargo, ND, October 2018.
65. Karasch, B, T Hovick, **J Harmon**, R Limb, K Sedivec. Estimates of Butterfly Density in Mixed-Grass Prairie with Restored Disturbance Regimes. Annual School of Natural Resource Science Student Symposium. Fargo, ND, October 2018.
66. Pei, C, T Hovick, R Limb, **J Harmon**, B Geaumont, A Antonsen. Essential statewide monitoring of bee communities in North Dakota. Annual School of Natural Resource Science Student Symposium. Fargo, ND, October 2018.
67. Valls, A, **J Harmon**. How does temperature indirectly influence insect herbivores via their host plants? European Congress of Entomology. Napoli, Italy, July 2018.
68. Antonsen, A, C Pei, **J Harmon**, T Hovick, R Limb, B Geaumont. Statewide status update of threatened butterfly pollinators in North Dakota. North Central Branch of the Entomological Society of America Annual Meeting. Madison, WI, March 2018.
69. Karasch, B, T Hovick, **J Harmon**, R Limb. Butterfly densities in mixed-grass prairie with restored fire and grazing disturbances. North Central Branch of the Entomological Society of America Annual Meeting. Madison, WI, March 2018.
70. Duquette, C, T Hovick, **J Harmon**. Regional pollinator diversity mediates land-use impacts in bees. North Central Branch of the Entomological Society of America Annual Meeting. Madison, WI, March 2018.
71. Kral, K, T Hovick, R Limb, **J Harmon**. Grassland butterfly community responses to Kentucky bluegrass invasions. North Central Branch of the Entomological Society of America Annual Meeting. Madison, WI, March 2018.
72. Pei, C, T Hovick, **J Harmon**. Biases associated with bee-sampling methods. North Central Branch of the Entomological Society of America Annual Meeting. Madison, WI, March 2018.
73. Valls, A and **J Harmon**. The importance of time when characterizing temperature effects on aphid fecundity. Annual School of Natural Resource Science Student Symposium. Fargo, ND, December 2017.

74. Kral, K, T Hovick, R Limb, **JP Harmon**, E Gillam. Improving monarch conservation efforts by incorporating field behaviors. Annual School of Natural Resource Science Student Symposium. Fargo, ND, December 2017.
75. Follman, T, A Valls, **JP Harmon**. Effects of wind on insect herbivores. Annual School of Natural Resource Science Student Symposium. Fargo, ND, December 2017.
76. **Harmon JP**, K Kral, C Bendel, R Limb, T Hovick. Current and historical trends for pollinator research in working landscapes. Annual Meeting of the Entomological Society of America. Denver, CO, November 2017.
77. Valls, A and **J Harmon**. The importance of time when characterizing temperature effects on aphid fecundity. Annual Meeting of the Entomological Society of America. Denver, CO, November 2017.
78. Valls, A and **J Harmon**. Host plant mediated indirect effects of temperature on herbivores. Annual Meeting of the Entomological Society of America. Denver, CO, November 2017.
79. Kral, K, T Hovick, R Limb, **J Harmon**. Grassland butterfly diet breadth and landscape use determines impacts of invasive plants and landscape configuration. Annual Meeting of the Entomological Society of America. Denver, CO, November 2017.
80. Kral, K, **J Harmon**, R Limb, T Hovick. Behavioral field observations of monarchs (*Danaus plexippus*) in the Northern Great Plains. Annual Meeting of the Entomological Society of America. Denver, CO, November 2017.
81. Kral, K, T Hovick, R Limb, **JP Harmon**, E Gillam. Improving monarch conservation efforts by incorporating field behaviors. North Dakota Society for Range Management. Bismarck, ND, October 2017.
82. Follman, T, A Valls, **JP Harmon**. Effects of wind on insect herbivores. NDSU Explore. Fargo, ND, October 2017.
83. Bendel, CR, TJ Hovick, RF Limb, and **JP Harmon**. Conservation of native plant-pollinator interactions in grassland working landscapes. North Dakota Chapter of the Wildlife Society. Mandan, ND, February 2017.
84. Kral, K, TJ Hovick, RF Limb, and **JP Harmon**. Conservation concerns and preliminary estimates for grassland butterflies in the Dakotas. North Dakota Chapter Society for Range Management Annual Meeting. Bismarck, ND, October 2016.
85. Bendel, CR, TJ Hovick, RF Limb, and **JP Harmon**. Floristic resource availability influences bumblebee interaction networks in working landscapes. North Dakota Chapter Society for Range Management Annual Meeting. Bismarck, ND, October 2016.
86. Valls, A, J Kopco, **JP Harmon**. Effects of heat shock: before, during, and after a parasitoid attack on pea aphid. Annual Meeting of the Entomological Society of America. Orlando, FL, September 2016.
87. Valls, A, BT Barton, **JP Harmon**. How insects handle thermal variation: constant vs fluctuating temperatures. Annual Meeting of the Ecological Society of America. Fort Lauderdale, FL, August 2016.

88. Shajahan, S, S Sivarajan, M Maharlooei, S Bajwa, **JP Harmon**, J Nowatzki, C Igathinathane. Identification and counting of soybean aphids from digital images using particle separation and shape classification. ASABE Annual International Meeting. Orlando, FL, July 2016.
89. Bendel, CR, TJ Hovick, RF Limb, and **JP Harmon**. The effects of grassland management on pollinators and their provision of ecosystem services. North Dakota State University Ag Week Research Symposium. Fargo, ND, April 2016.
90. Kral, K, R Limb, T Hovick, **J Harmon**. Invasive plants influence grassland butterfly communities. North Dakota Academy of Science. Fargo, ND, April 2016.
91. Bendel, CR, TJ Hovick, RF Limb, and **JP Harmon**. The effects of grassland management on pollinators and their provision of ecosystem services. North Dakota Academy of Science. Fargo, ND, April 2016.
92. Kral, K, T Hovick, R Limb, **J Harmon**, and C Dixon. Density estimates for grassland butterflies in the Northern Great Plains. Society for Range Management Annual Meeting. Corpus Christi, TX, February 2016.
93. Bendel, CR, TJ Hovick, RF Limb, and **JP Harmon**. The effects of grazing management practices on butterfly and bee community composition. Society for Range Management Annual Meeting. Corpus Christi, TX, February 2016.
94. Eichele, J, **JP Harmon**, D Prischmann-Voldseth, A Wick. Saline soil: bad for crops, good for spider mites. Annual Meeting of the Entomological Society of America. Minneapolis, MN, November 2015.
95. Kopco J, **JP Harmon**, A Valls. Do diverse endosymbiont compositions affect parasitism rates of different parasitoids? Annual Meeting of the Entomological Society of America. Minneapolis, MN, November 2015.
96. Valls A, J Kopco, **JP Harmon**. How insects handle thermal variation: constant opposed to fluctuating temperatures. Annual Meeting of the Entomological Society of America. Minneapolis, MN, November 2015.
97. Butcher K, AF Wick, T DeSutter, A Chatterjee, **J Harmon**. Effect of soil salinity on labile carbon pools in a naturally saline, sandy loam soil. ASA, CSSA, & SSSA International Annual Meetings. Minneapolis, MN. November 2015.
98. Butcher K, AF Wick, T DeSutter, **J Harmon**, D Prischmann-Voldseth. Soybean yield response to natural soil salinity gradients in Richland County, North Dakota. ASA, CSSA, & SSSA International Annual Meetings. Minneapolis, MN. November 2015.
99. Butcher K, AF Wick, T DeSutter, **J Harmon**, C Heglund. Application of field research for land management decisions: Prevention and reclamation of soil salinity using site-specific data. ASA, CSSA, & SSSA International Annual Meetings. Minneapolis, MN. November 2015.
100. Bendel, CR, TJ Hovick, RF Limb, **JP Harmon**. Butterfly & bee community compositions in the Sheyenne National Grasslands. Annual Meeting of the North Dakota Society for Range Management. Bismarck, ND, October 2015.

101. Valls A, J Kopco, **JP Harmon**. The role of timing in the heat shock effects on a prey-predator system. Annual Meeting of the Ecological Society of America. Baltimore, MD, August 2015.
102. Kopco J, **JP Harmon**. Inter- and intraspecific competition of parasitic wasps: Does host experience influence wasp competition? Annual Meeting of the Ecological Society of America. Baltimore, MD, August 2015.
103. Valls A, J Kopco, **JP Harmon**. Effects of heat shock: before, during, and after a parasitoid attack on pea aphid. Annual Meeting of the North Central Branch of the Entomological Society of America. Manhattan, KS, June 2015.
104. Kopco, J, A Valls, **JP Harmon**, AR Ives, B Barton. Highs and lows: Does diel temperature variation matter to aphids? Annual Meeting of the North Central Branch of the Entomological Society of America. Manhattan, KS, June 2015.
105. Eichele J, **JP Harmon**, D Prischmann-Voldseth, A Wich. Populations of two-spotted spider mite (*Tetranychus urticae*) and soybean aphid (*Aphis glycines*) increase with soil salinity. Annual Meeting of the North Central Branch of the Entomological Society of America. Manhattan, KS, June 2015.
106. Kopco J, **JP Harmon**. Hunting behavior and competition of two parasitoids of the soybean aphid. Annual Meeting of the Entomological Society of America. Portland, OR, November 2014.
107. Alfonso JV, **JP Harmon**. Timing is key: How pea aphid populations change with warming at different times of day. Annual Meeting of the Entomological Society of America. Portland, OR, November 2014.
108. McLean E, **JP Harmon**, D Prischmann-Voldseth. Roles of environmental factors in shaping soybean aphid populations. Annual Meeting of the Entomological Society of America. Portland, OR, November 2014.
109. Dreyer J, J Eichele, R Heinz, SP Foster, D Prischmann-Voldseth, **JP Harmon**. Soybean aphid (*Aphis glycines*) alarm pheromone production and response. Annual Meeting of the Entomological Society of America. Portland, OR, November 2014.
110. Butcher K, AF Wick, TM DeSutter, **J Harmon**, D Prischmann. Corn and soybean responses to soil salinity gradients in Richland County, North Dakota. ASA, CSSSA, & SSSA International Annual Meeting. Long Beach, CA, November 2014.
111. Stonefish A and **JP Harmon**. Recognition of parasitized pea aphids, *Acyrtosiphon pisum*, by other pea aphids. Annual Meeting of the North Central Branch of the Entomological Society of America. Des Moines, IA, March 2014.
112. McLean E, D Prischmann-Voldseth and **JP Harmon**. Survey of soybean aphid populations in the Red River Valley and potential influencing factors. Annual Meeting of the North Central Branch of the Entomological Society of America. Des Moines, IA, March 2014.
113. Hansen A, D Prischmann-Voldseth, A Chatterjee and **JP Harmon**. Exploring effects of weed management in agroecosystems: Subterranean arthropods, soil

properties and soybean production. Annual Meeting of the North Central Branch of the Entomological Society of America. Des Moines, IA, March 2014.

114. Kopco J and **JP Harmon**. Host defensive behaviors and indirect competition between two parasitoids of the soybean aphid. Annual Meeting of the North Central Branch of the Entomological Society of America. Des Moines, IA, March 2014.

115. Alfonso JV and **JP Harmon**. As different as night and day: How different warming times affect aphid population growth. Annual Meeting of the North Central Branch of the Entomological Society of America. Des Moines, IA, March 2014.

116. Eichele, J, **JP Harmon**, DA Prischmann-Voldseth, C Heglund, A Wick, J Dreyer. Two-spotted spider mites (*Tetranychus urticae*) perform better on soybean plants grown in saline conditions Annual Meeting of the North Central Branch of the Entomological Society of America. Des Moines, IA, March 2014.

117. Heglund, C, AF Wick, **J Harmon**, D Prischmann. The influence of soil salinity gradients on corn and soybean production and nutrient cycling. ASA, CSSA, & SSSA International Annual Meetings. Tampa Bay, FL, November 2013.

118. Eichele, J, **JP Harmon**. Does the presence of conspecifics alter defensive behavior of the soybean aphid (*Aphis glycines*)? Annual Meeting of the North Central Branch of the Entomological Society of America. Rapid City, SD, June 2013.

119. Kopco, J, **JP Harmon**. The dangers of diet and exercise: Movement and feeding interruption in the soybean aphid *Aphis glycines*. Annual Meeting of the North Central Branch of the Entomological Society of America. Rapid City, SD, June 2013.

120. **Harmon JP**, R Whalen, S Burdick, and DA Prischmann-Voldseth. Within-plant movement by a “sedentary” herbivorous insect: Another way climate change may influence species interactions? Invited Workshop: Climate Change and Species Interactions: Way Forward. Cary Institute of Ecosystem Studies, Millbrook, NY. November 2012.

121. Ballman ES, K Ghising, DA Prischmann-Voldseth and **JP Harmon**. Factors contributing to the poor performance of the soybean aphid parasitoid *Binodoxys communis* on a resistant soybean cultivar. Annual Meeting of the Entomological Society of America. Knoxville, TN. November 2012.

122. Whalen, R and **JP Harmon**. The interactive effects of temperature and plant resistance on the soybean aphid (*Aphis glycines*). North Central Branch Meeting of the Entomological Society of America. Lincoln, NE. June 2012.

123. Ballman, ES, K Ghising, DA Prischmann-Voldseth and **JP Harmon**. Factors contributing to the poor performance of the soybean aphid parasitoid *Binodoxys communis* on a resistant soybean cultivar. North Central Branch Meeting of the Entomological Society of America. Lincoln, NE. June 2012.

124. Solga M, **J Harmon**, and A Ganguli. 2012. Timing is everything: how environmental change may disrupt the timing of plant-pollinator interactions. Society of Range Management Annual Meeting. Spokane, WA. February 2012.

125. Whalen, R and **JP Harmon**. The distribution and movement of soybean aphid differs in resistant and susceptible soybeans. North Central Branch Entomological Society of America Annual Meeting. Minneapolis, MN. March 2011.
126. Ghising K, **JP Harmon**, P. Beauzay, and J. J. Knodel. Impact of *Rag1* aphid-resistant soybeans on *Binodoxys communis* (Gahan) (Hymenoptera: Braconidae), a parasitoid of soybean aphid (Hemiptera: Aphididae). [Poster presentation]. North Central Branch Entomological Society of America Annual Meeting. Minneapolis, MN. March 2011.
127. **Harmon, JP** and AR Ives. The species-specific interactive effects of predation and heat shocks on an insect herbivore. Annual Meeting of the Ecological Society of America. Milwaukee, WI August 2008.
128. **Harmon, JP** and JA Rosenheim. The effects of alternative prey on intraguild predation dynamics. Annual Meeting of the Entomological Society of America. Fort Lauderdale, FL. December 2005.
129. **Harmon, JP** and DA Andow. Probability-based functional response model incorporating predator experience. Annual Meeting of the Ecological Society of America. Portland, OR. August 2004.
130. **Harmon, JP** and DA Andow. Incorporating predator experience into a functional response model. Annual Meeting of the Entomological Society of America. Cincinnati, OH. October 2003.
131. **Harmon, JP** and DA Andow. Characterizing indirect interactions facilitated by a shared predator. Annual Meeting of the Ecological Society of America. Tucson, AZ. August 2002.
132. **Harmon, JP** and DA Andow. Complex outcomes of simple foraging behaviors of a generalist predator. Annual Meeting of the Entomological Society of America. San Diego, CA. December 2001.
133. **Harmon, JP** and DA Andow. Density dependent guarding of aphids by an ant on an agricultural weed. Annual Meeting of the Ecological Society of America. Madison, WI. August 2001.
134. **Harmon, JP** and DA Andow. Why does European corn borer oviposit on tall corn? Disentangling plant age, height, and microclimate. Annual Meeting of the North Central Branch of the Entomological Society of America. Ft. Collins, CO. March 2001.
135. **Harmon, JP** and DA Andow. Density dependent guarding of *Aphis fabae* Scop. colonies from coccinellids by *Lasius neoniger* Emery. Annual Meeting of the Entomological Society of America. Montreal, Canada. December 2000.
136. **Harmon, JP** and DA Andow. Predation of European corn borer eggs by *Coleomegilla maculata* DeGeer in the presence of alternative foods. Annual Meeting of the Ecological Society of America. Snowbird, UT. August 2000.
137. **Harmon, JP** and RK Krell. Believe it or not you're human! A realistic approach to time management. Annual Meeting of the North Central Branch of the Entomological Society of America. Minneapolis, MN. March 2000.

138. **Harmon, JP** and DA Andow. Predation of European corn borer eggs by *Coleomegilla maculata* DeGeer in the presence of alternative foods. Annual Meeting of the Entomological Society of America. Atlanta, GA. December 1999.
139. **Harmon, JP**, JE Losey, and AR Ives. Increased aggregation and predation by *Coleomegilla maculata* in alfalfa intermixed with dandelions. Annual Meeting of the Entomological Society of America. Las Vegas, NV. November 1998.
140. **Harmon, JP**. Variation in visual and color cues used in the foraging of four coccinellid species. Annual Meeting of the Entomological Society of America. Nashville, TN. November 1997.

Teaching & Advising

Teaching Experience

Didactic Courses

- Writing a Scientific Lit Review. NDSU Entomology 770. Annually 2011, 2014-2024.
- Natural Resource Management Orientation. NDSU NRM 150. 2024
- Insect Ecology. NDSU Entomology 470 & 670. Every other year 2011-2023.
- Classroom Undergraduate Research Experience: Insect Behavior. NDSU Biology 275.
Co-instructor with Erin Gillam. Developed and taught course 2021-2022.
- Superhero Science. NDSU Honors 191/151. Annually 2017-2019.
- Introduction to the Research Process. NDSU Entomology 790-01. Fall 2010.
- How To Do Science: A Research Experience From Proposal to Poster. NDSU Entomology 299. Spring 2010.
- Space the Final Frontier: Interactions of Ecological and Evolutionary Processes in Space. University of Minnesota, Ecology, Evolution, and Behavior 8060. 2002.
- Scientific Communication for Biologists. University of Minnesota Entomology 5920 Sect. 2. Fall 2001.
- Insect Population Dynamics. University of Minnesota Entomology 5920, Sect. 2. Spring 2000. Co-developer, lecturer, and teaching assistant.

Graduate Seminars

- Communicating Science to the Public. NDSU Range 790-01. Co-instructor with Torre Hovick and Kevin Sedivec. Spring 2023.
- School of Natural Resource Science Research Symposium. NDSU Range 790-01, Soil Science 491-01, Soil Science 790-01, Entomology 790-01. Spring 2011, Fall 2014-2016, 2018-2024.
- Enhancing Writing. NDSU Entomology 790-02. Fall 2014.
- Understanding Results. NDSU Entomology 790-02. Spring 2014.
- Communicating and Discussing Research. NDSU Entomology 790-02. Fall 2013.

Advising

Graduate Students - advised

Bethany Roberton	Ph.D. NDSU – Entomology	<i>Current</i>
Amelia Landsverk	M.S. NDSU – Natural Resource Sciences	<i>Current</i>
Michael Warne	M.S. NDSU – Natural Resource Sciences	<i>Current</i>
	Co-advisor Hovick	
Ellysa Johnson	M.S. NDSU – Natural Resource Management	Graduated 2023
	Co-advisor Hovick	
Savannah Adams	M.S. NDSU – Range Sciences	Graduated 2021
	Co-advisor Hovick	
Melina Kuerschner	M.S. NDSU – Natural Resource Management	Graduated 2021
Adrienne Antonsen	M.S. NDSU – Entomology	Graduated 2020
Brooke Rockentine	M.S. NDSU – Entomology	2017-2019
Aleix Valls	Ph.D. NDSU – Entomology	Graduated 2018
James Kopco	Ph.D. NDSU – Entomology	Graduated 2017
Jaclyn Eichele	M.S. NDSU – Entomology	Graduated 2016
Joseph Alfonso	M.S. NDSU – Entomology	Graduated 2015
Erin McLean	M.S. NDSU – Entomology, Co-advisor Harris	Graduated 2015
Audra Stonefish	M.S. NDSU – Entomology	2012-2014
Steven Burdick	M.S. NDSU – Env'tl & Conservation Science,	Graduated 2012
	Co-advisor Prischmann-Voldseth	
Rebecca Whalen	M.S. NDSU – Entomology	Graduated 2012
Michelle Solga	M.S. NDSU – Range Sciences,	Graduated 2012
	Co-advisor Ganguli	
Kiran Ghising	M.S. NDSU – Entomology, Co-advisor Knodel	Graduated 2011
Anne Thurn	M.S. NDSU – Entomology, Co-advisor Ode	Graduated 2010

Graduate Students – advisory committees (Dates show when on committee)

Mehakpreet Kaur	Ph.D. NDSU – Biological Sciences	2024-Present
Rhiannon Hall	M.S. NDSU – Natural Resource Sciences	2023-Present
Jackie Humble	M.S. NDSU – Biological Sciences	2023-Present
Spencer Furniss	M.S. NDSU - Entomology	2023-Present
Haley Mosqueda	Ph.D. NDSU - Env'tl & Conservation Science	2023-Present
Justin Clarke	Ph.D. NDSU – Range Science	2022-Present
Hailey Keen	M.S. NDSU – Range Science	2020-Present
Alec Andress	M.S. NDSU – Biological Sciences	2022-2023
Cecelia Castleberry	M.S. NDSU – Soil Science	2021-2023
Chase Christopherson	M.S. NDSU – Natural Resource Management	2021-2022
Kimberly Zralka	M.S. NDSU – Range Science	2021-2022
Chyna Pei	Ph.D. NDSU – Range Science	2017-2022
Hayley Hilfer	M.S. NDSU – Range Science	2020-2021
Hanna Karevold	M.S. NDSU – Biology	2018-2021
Cameron Duquette	Ph.D. NDSU – Range Science	2017-2021
MacKenzie Ries	M.S. NDSU – Soil Science	2018-2020
Matthew Kruger	M.S. NDSU – Soil Science	2018-2020

Brooke Karasch	M.S. NDSU – Range Science	2017-2020
Jasmine Cutter	M.S. NDSU – Range Science	2017-2020
Jeremy Dalos	M.S. NDSU – Zoology	2017-2020
Elisabeth Wison	Ph.D. NDSU – Zoology	2017-2019
Courtney Grula	Ph.D. NDSU – Zoology	2017-2019
Alec Lackman	Ph.D. NDSU – Envntl & Conservation Science	2015-2019
Samantha Croat	M.S. NDSU – Soil Science	2017-2018
Katherine Kral	Ph.D. NDSU – Range Science	2015-2018
Cayla Bendel	M.S. NDSU – Range Science	2015-2017
Courtney Garrison	M.S. NDSU – Zoology	2015-2017
Heather Inczauskis	M.S. NDSU – Envntl & Conservation Science	2015-2017
Alex Torson	Ph.D. NDSU - Zoology	2014-2017
Kristen Butcher	M.S. NDSU – Soil Science	2014-2016
Andrew Nelson	M.S. NDSU – Zoology	2014-2016
Josiah Nelson	Ph.D. NDSU – Envntl & Conservation Science	2012-2016
Shane Braegelman	Ph.D. NDSU – Envntl & Conservation Science	2011-2016
Chandra Heglund	M.S. NDSU – Soil Science	2013-2015
B. Karina Montero	Ph.D. NDSU – Zoology	2011-2015
Ashton Hansen	M.S. NDSU – Entomology	2012-2014
Paul Barnhart	Ph.D. NDSU – Envntl & Conservation Science	2010-2014
Kirk Anderson	Ph.D. NDSU – Entomology	2012-2013
Elise Boehm	M.S. NDSU – Envntl & Conservation Science	2011-2013
Smita Duttasuman	M.S. NDSU – Entomology	2011-2013
Yue Li	M.S. NDSU – Entomology	2010-2013
Samantha Brunner	M.S. NDSU – Entomology	2010-2012
Leonard Stellwag	Ph.D. Cornell University – Entomology	2010-2011

Mentoring Undergraduate Students & High School Students – formal projects & theses

Dhruvika Patel	NDSU Governor’s School Program	2017
Momina Chaudhry	NDSU Governor’s School Program	2016
Akriti Saxena	NDSU Governor’s School Program	2015
Gift Ben-Bernard	NDSU Governor’s School Program	2014
Adrianna Mendez	NDSU Governor’s School Program	2013
Kristy Brandt	NDSU Governor’s School Program	2012
Laura Manstrom	NDSU Governor’s School Program	2011
Allison Wanner	NDSU Governor’s School Program	2010
Gregg Vanderveen	Senior honors thesis	2009
Brianna Meyer	Mentored research as part of University of Wisconsin Introductory Biology program (Zoo 152)	2009
Matthew Meisner	Madison Metropolitan School District high school internship program.	2005-2009
Daniel Rowlands	Senior thesis and mentored research. Recipient of Zoology Undergraduate Research Grant.	2006-2008
Heather Newton	Mentored research (UW Zoo 152).	2007
Octavius Jones	Mentored research (UW Zoo 152).	2007
Pui Pik Lee	Senior honors thesis. Recipient of Hilldale	2006–2007

	Undergraduate/Faculty Research Fellowship.	
Devon Francke	Senior thesis and directed study.	2006–2007
Andrea Hayden	Undergraduate Research Opportunities Program U. Minnesota (a competitive award).	2002–2003
Faith Hassinger	Undergraduate Research Opportunities Program.	2001-2002

Academic Advising

	2020	2021	2022	2023	2024
Masters of Natural Resource Management <i>Professional Masters Degree</i>	1	1	3	3	2
Undergraduate Students - NRM		5	3	1	3

Service & Awards

Service & Professional Experience

Service to Discipline

USDA NIFA Review Panels	2023-2024
NSF Review Panels	2019, 2022-4
North Central Branch Entomological Society of America COVID Liaison	2020–2022
NCERA220: Biological Control of Arthropods and Weeds Working Group	2018–2021
Environmental Risk Assessment – Generalist Arthropod Biological Control Agents – Board of Advisors	2018–2020
USDA NIFA Review Panel	2019, 2011
Entomological Society of America - North Central Branch Honorary Awards Committee	2016–2019
Special guest co-editor – <i>Current Opinions in Insect Science</i>	2016-2017
Entomological Society of America - North Central Branch Student Awards Committee	2011–2016
Assistant editor - Population/Community Ecology Sections of <i>Environmental Entomology</i>	2009–2014
Special guest editor - <i>Rangelands</i>	2011
North Central Branch ESA Long Range Planning Committee	2000–2002
Chair - North Central Branch ESA Student Affairs Committee	1999–2000
North Central Branch ESA Student Affairs Committee	1998–1999

Service to University

Chair - SNRS Promotion, Tenure & Evaluation	2024-present
Chair - SNRS Faculty Search Committee	2024-present
CAFSNR Curriculum Committee	2023-present
SNRS Curriculum & Teaching Leader	2023-present
NDSU Greenhouse & BSL2 Protocol Committee	2010-present
CAFSNR Recruitment Task Force	2023-2024
Associate Director School of Natural Resource Sciences	2019-2022
School of Natural Resource Sciences Curriculum Committee	2014–2022

Entomology Department Program Leader	2011–2022
School of Natural Resource Sciences Graduate Committee	2010–2022
NDSU IT Instructional Design Search Committee	2020-2021
CAFSNR/AES Awards Selection Committee (Larson/Yaggie & Dahl)	2019
NDSU Administrative Assistant Search Committee	2019
School of Natural Resource Sciences Range Faculty Hiring Committee	2012; 2014
NDSU Faculty Senate	2011–2014
Environmental & Conservation Sciences Steering Committee	2010–2014
NDSU CAFSNR Curriculum Committee	2011–2012
Entomology Research Specialist Hiring Committee	2011
Entomology Awards Committee	2010–2011
School of Natural Resource Sciences Seminar Committee	2010–2011
President - U. of Minnesota entomology graduate student organization	2000–2001
University of Minnesota Entomology Dept. Curriculum Committee	1998–2002
Student Representative – U. of Minnesota Entomology Dept. Voting Staff	1998–1999

Awards & Honors

NDSU Innovative Instructor – December 2023
 H. Roald and Janet Lund Excellence in Teaching Award – SNRS Nominee 2021
 Earl and Dorothy Foster Excellence in Teaching Award – SNRS Nominee 2019
 Larson/Yaggie Excellence in Research Award –Winner 2015
 Larson/Yaggie Excellence in Research Award – SNRS Nominee 2014
 University of Minnesota ‘Best Dissertation’ Award in Biological and Medical Sciences
 2004
 USDA-NRI Postdoctoral Fellowship 2003
 International Organization for Biological Control Nearctic Regional Section Outstanding
 Graduate Student Award 2002
 Marion Brooks-Wallace Academic Achievement Award 2002
 Phillip C. Hamm Memorial Scholarship 2002
 North Central Branch Graduate Student Scholarship 2002
 Dr. Alexander A. Granovsky Pest Management Scholarship Co-winner 2001
 Entomological Society of America President’s Prize 2000; Honorable Mention 1998
 Environmental Protection Agency STAR Fellowship 1998
 National Science Foundation Graduate Research Fellowship - Honorable Mention 1998