

CURRICULUM VITAE

Dr. Viktoria Wagner

Associate Professor

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Academic positions

since 2024	Associate Professor , Department of Biological Sciences, University of Alberta
2018–2024	Assistant Professor , Department of Biological Sciences, University of Alberta
2016–2018	Adjunct Researcher , Department of Botany and Zoology, Masaryk University, Czech Republic
2014–2016	Marie Curie Postdoctoral Fellow , Department of Botany and Zoology, Masaryk University, Czech Republic
2012–2014	Postdoctoral Researcher , Department of Botany and Zoology, Masaryk University, Czech Republic
2011–2012	Alexander von Humboldt Postdoctoral Fellow , College of Forestry and Conservation, University of Montana, U.S.A.
2007–2011	Academic Staff Member , Institute of Biology, University of Halle-Wittenberg, Germany

Academic training

2007–2011	Ph.D. , Institute of Biology, University of Halle-Wittenberg, Germany Supervisor: Prof. Isabell Hensen
2002–2006	Diploma* , Biology, University of Göttingen, Germany Supervisor: Prof. Erwin Bergmeier *Equivalent to combined BSc and MSc

Awards and Distinctions (selection)

2014–2016	Marie Curie Postdoctoral Fellowship
2011–2012	Alexander von Humboldt Postdoctoral Fellowship
2006	German Academic Exchange Service, Diploma Thesis Completion Scholarship

Leaves of Absence

2013–2014	Parental leave (full-time and part-time), Masaryk University
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Publications

Supervised lab members are highlighted in bold

Peer-reviewed journal articles

46. Pärtel, M., Tamme, R., Carmona, C.P., Riibak, K., Moora, M. [...] **Murillo, R.** [...], Wagner, V. [...], Zobel M. (in press) Global impoverishment of natural vegetation revealed by dark diversity. *Nature*.
45. **Murillo, R.**, Wagner, V., (in press) Propagule pressure and soil disturbance diminish plant community resistance to invasion across habitat types. *Journal of Vegetation Science*.
44. Holden, E., **Murillo, R.**, Grenke, J., **Holden, K.**, **Villasor, C.**, Wagner, V. (2025) The Biology of Canadian Weeds: *Poa pratensis* L. *Canadian Journal of Plant Science* 105: 1-17.
43. Cai, L., Kreft, H., Denelle, P., Taylor, A., Craven, D., Dawson, W., Essl, F., van Kleunen, M., Pergl, J., Pyšek, P., Winter, M., Cabezas, F.J., Wagner, V., Belser, P.B., Wieringa, J.J., Weigelt, P. (2025) Environmental filtering, not dispersal history, explains global patterns of phylogenetic turnover in seed plants at deep evolutionary timescales. *Nature Ecology & Evolution* 9(2): 314-324.
42. Biancari, L., Aguiar, M.R., Eldridge, D.J., Oñativia, G.R., Le Bagousse-Pinguet, Y., [...] Wagner, V., [...] Maestre, F.T. (2024) Drivers of woody dominance across global drylands. *Science Advances* 10(41): eadn6007.
41. **Murillo, R.**, **Pätsch, R.**, Wagner, V. (2024) Agronomic non-native species are overrepresented across habitat types in central Canada. *Journal of Applied Ecology* 61(6): 1385-1395.
40. Pätsch, R., Midolo, G., Dítě, Z., Dítě, D., Wagner, V., Pavonič, M., Danihelka, J., Preislerová, Z., Krstivojević Ćuk, M., Stroh, H.G., Tóth, T., Chytrá, H., Chytrý, M. (accepted) Beyond salinity: plants show divergent responses to soil ion composition. *Global Ecology and Biogeography*.
39. **Murillo, R.**, **Pätsch, R.**, Wagner, V. (accepted) A comparative assessment of the levels of plant invasion across habitats in central Alberta. *Journal of Applied Ecology*.
38. **Villasor, C.**, **Robertson, K.**, Becker, T., Cahill, J.F., Deák, B., Hensen, I., Otfinowski, R., Rosche, R., Shyriaieva, D., Vakhlamova, T., Valkó, O., Wagner, V. (2024) Invasion success of three cool-season grasses in the northern prairie: a test of three hypotheses. *Oikos* e10266.
37. **Lugar, R.**, Nelson, C.R., Wagner, V. (2023) Long term effects of forb-selective herbicides on grassland communities. *Applied Vegetation Science* 26: e12738.
36. **Pätsch, R.**, **Zapisocki, Z.**, **Tucker D.**, Stroh, H.G., Becker, T., Spribille, T., Wagner, V. (2022) Bedrock meadows: A distinct vegetation type in northwestern North America. *Applied Vegetation Science* 25: e12702.
35. Vakhlamova, T., Wagner, V., Padullés Cubino, J., Chytrý, M., Lososová, Z. (2022) Urban plant diversity in Kazakhstan: effects of habitat type, city size and macroclimate. *Applied Vegetation Science* 25(3): e12679.
34. **Zapisocki, Z.**, **de Assis Murillo, R.**, Wagner, V. (2022) Non-native plant invasions in prairie grasslands of Alberta, Canada. *Rangeland Ecology and Management* 83:20-30.
33. Oyundelger, K., Harpke, D., Herklotz, V., Troeva, E., Zheng, Z., Li, Z., Oyuntsetseg, B., Wagner, V., Wesche, K., Ritz, C.M. (2022) Phylogeography of *Artemisia frigida* (Anthemideae, Asteraceae) based on genotyping-by-sequencing and plastid DNA data: Migration through Beringia. *Journal of Evolutionary Biology* 35(1): 64-80.
32. Wagner, V., Večeřa, M., Jiménez-Alfaro, B., Pergl, J., Lenoir, J., Svenning, J.-C., Pyšek, P., Agrillo, E., Biurrun, I., Campos J.A., Ewald, J., Fernández-González, F., Jandt, U., Rašomavičius, V., Šilc, U., Škvorec, Ž., Vassilev, K., Wohlgemuth, T., Chytrý, M. (2022) Alien plant invasion hotspots and invasion debt in European woodlands. *Journal of Vegetation Science* 32: e13014.
31. Harding, L.E., Bourbonnais, M., Cook, A.T., Spribille, T., Wagner, V., Darimont, C. (2020) No statistical support for wolf control and maternal penning as conservation measures for endangered mountain caribou. *Biodiversity and Conservation* 29: 3051–3060.
30. Bruehlheide, H., Dengler, J., Jiménez-Alfaro, B., Purschke, O., Hennekens, S. [...] Wagner, V. [...] (2019) sPlot – A new tool for global vegetation analyses. *Journal of Vegetation Science* 30: 161–186.
29. Palpurina, S., Chytrý, M., Hölzel, N., Tichý, L., Wagner, V., Horsák, M., Axmanová, I., Hájek, M., Hájková, P., Freitag, M., Lososová, Z., Mathar, W., Tzonev, R., Danihelka, J., Dřevojan, P. (2019) The type of nutrient limitation affects the plant species richness–productivity relationship: evidence from dry grasslands across Eurasia. *Journal of Ecology* 107: 1038–1050.
28. McManamen, C., Nelson, C.R., Wagner, V. (2018) Timing of seeding after herbicide application influences rates of germination and seedling biomass of native plants used for grassland restoration. *Restoration Ecology* 26:1137–1148.
27. Dengler, J., Wagner, V., Dembiec, I., García-Mijangos, I., Naqinezhad, A., Boch, S., Chiarucci, A., Conradi, T. et al. (2018) GrassPlot – a database of multi-scale plant diversity in Palaearctic grasslands. *Phytocoenologia* 48: 331–347.
26. Rosche, C., Schrieber, K., Lachmuth, S., Durka, W., Hirsch, H., Wagner, V., Schleuning, M., Hensen, I. (2018) Sex ratio rather than population size affects genetic diversity in *Antennaria dioica*. *Plant Biology* 20: 789–796.
25. Wagner, V., Chytrý, M., Jiménez-Alfaro, B., Pergl, J., Hennekens, S., Biurrun, I., et al. (2017) Alien plant invasions across European woodlands. *Diversity and Distributions* 23: 969–981. – **Editor's choice**.
24. Lekberg, Y., Wagner, V., Rummel, A., McLeod, M., Ramsey, P.W. (2017) Strong indirect herbicide effects on mycorrhizal associations through plant community shifts and secondary invasions. *Ecological Applications* 27: 2359–2368.

23. Sengl, P., Magnes, M., Wagner, V., Weithaler, K., Erdős, L., Berg, C. (2017) Restoration of lowland meadows in Austria: a comparison of five techniques. *Basic and Applied Ecology* 24: 19–29.
22. Palpurina, S., Wagner, V., von Wehrden, H., Hájek, M., Horsák, M., Brinkert, A., Hölzel, N., Wesche, K., Kamp, J., Hájková, P., Danihelka, J., Lustyk, P., Merunková, K., Preislerová, Z., Kočí, M., Kubešová, S., Cherosov M., Ermakov, N., German, D., Gogoleva, P., Lashchinsky, N., Martynenko, V., Chytrý, M. (2017) The relationship between plant species richness and soil pH vanishes with increasing aridity across Eurasian dry grasslands. *Global Ecology and Biogeography* 26: 425–434.
21. Wagner, V., Chytrý, M., Zelený, D., von Wehrden, H., Brinkert, A., Danihelka, J., Jansen, F., Hölzel, F., Kamp, J., Lustyk, P., Merunková, K., Palpurina, S., Preislerová, Z., Wesche, K. (2017) Regional differences in soil pH niche among dry grassland plants in Eurasia. *Oikos* 126: 660–670.
20. Wagner, V., Antunes, P.M., Irvine, M., Nelson, C. (2017) Herbicide usage for invasive non-native plant management in wildland areas of North America. *Journal of Applied Ecology* 54: 198–204.
19. Sengl, P., Magnes, M., Wagner, V., Erdős, L. & Berg, C. (2016) Only large and highly-connected semi-dry grasslands achieve plant conservation targets in an agricultural matrix. *Tuexenia* 36: 167–190.
18. Gibson, A., Espeland, E., Wagner, V., Nelson, C.R. (2016) Can local adaptation research in plants inform selection of native plant materials? An analysis of experimental methodologies. *Evolutionary Applications* 9: 1219–1228.
17. Wagner, V. (2016) A review of software tools for spell-checking taxon names in vegetation databases. *Journal of Vegetation Science* 27: 1323–1327.
16. Berg, C., Essl, F., Wagner, V., Drescher, A. (2016) Temporal trends of alien tree invasions in Austrian woodlands. *Preslia* 88: 185–200.
15. Hirsch, H., Wagner, V., Danihelka, J., Ruprecht, E., Sánchez-Gómez, P., Seifert, M. & Hensen, I. (2015) High genetic diversity declines towards the geographic range periphery of *Adonis vernalis*, a Eurasian dry grassland plant. *Plant Biology* 17: 1233–1241.
14. Sengl, P., Wagner, V. & Magnes, M. (2015) Semi-dry grassland restoration in the SE alpine foreland of Austria - A study of early spontaneous colonisation patterns. *Hacquetia* 14: 97–112.
13. Al-Hawija, B.N., Partzsch, M., Wagner, V. & Hensen, I. (2014) Germination differences between natural and afforested population of *Pinus brutia* and *Cupressus sempervirens*. *Silva Fennica* 48: article id 1176.
12. Maier, S., Schmidt, T.S.B. Zheng, L., Peer, T., Wagner, V., Grube, M. (2014) Analyses of dryland biological soil crusts highlight lichens as an important regulator of microbial communities. *Biodiversity and Conservation* 23: 1735–1755.
11. Wagner, V. & Nelson, C.R. (2014) Herbicides negatively affect seed performance in native plants. *Restoration Ecology* 22: 288–291.
10. Al-Hawija, B.N., Wagner, V. & Hensen, I. (2014) Genetic comparison between natural and planted populations of *Pinus brutia* and *Cupressus sempervirens* in Syria. *Turkish Journal of Agriculture and Forestry* 38: 267–280.
9. Wagner, V., Spribille, T., Abrahamczyk, S., & Bergmeier, E. (2014) Timberline meadows along a 1000km transect in NW North America: species diversity and community patterns. *Applied Vegetation Science* 17: 129–141. - featured on the cover.
8. Durka, W., Nossol, C., Ruprecht, E., Wagner, V., Welk, E. & Hensen, I. (2013) Extreme genetic depauperation and differentiation of both populations and species European feather grasses (*Stipa*). *Plant Systematics and Evolution* 299: 259–269.
7. Wagner, V., Treiber, J., Danihelka, J., Ruprecht, E., Wesche, K. & Hensen, I. (2012) Declining genetic diversity and increasing genetic isolation towards the range periphery of a Eurasian feather grass: A study along a 3000 km longitudinal gradient. *International Journal of Plant Sciences* 173: 802–811.
6. Von Wehrden, H., Fischer, J., Brandt, P., Wagner, V., Kümmerer, K., Kuemmerle, T., Nagel, A., Olsson, O. & Hostert, P. (2012) Consequences of nuclear accidents for biodiversity and ecosystem services. *Conservation Letters* 5 (2): 81–89. – Featured on the cover.
5. Wagner, V., Antunes, P.M., Ristow, M., Lechner, U. & Hensen, I. (2011) Prevailing negative soil biota effect and no evidence for local adaptation in a widespread Eurasian grass. *PLoS ONE* 6(3): e17580.
4. Wagner, V., von Wehrden, H., Wesche, K., Siderova, T., Fedulin, A. & Hensen, I. (2011) Similar performance in central and range-edge populations of a Eurasian steppe grass under different climate and soil pH regimes. *Ecography* 34: 498–506.
3. Wagner, V., Durka, W. & Hensen, I. (2011) Increased genetic differentiation but no reduced genetic diversity in peripheral vs. central populations of a steppe grass. *American Journal of Botany* 98: 1173–1179.
2. Hensen, I., Kilian, C., Wagner, V., Durka, W., Pusch, J. & Wesche, K. (2010) Low genetic variability and strong differentiation among isolated populations of the rare steppe grass *Stipa capillata* L. in central Europe. *Plant Biology* 12: 526–536.
1. Wagner, V. (2009) Eurosiberian meadows at their southern edge: community patterns and phytogeography in the NW Tien Shan. *Journal of Vegetation Science* 20: 199–208.

Book chapters

- B4. Dawson, W., Blumenthal, D., Čuda, J., Duncan, R.P., Frohlich, D. [...] Wagner, V. [...] Kortz, A. (in review) Invasive species in grasslands. *Routledge Handbook of Grasslands*.

- B3.. Wagner, V., Richardson, D.M., Pyšek, P. (2024) Plant Invasions. In Scheiner, S.M. (ed) *Encyclopedia of Biodiversity*, 3rd edition, p. 680–695, Elsevier.
- B2. Wagner, V., Bragina, T.M., Nowak, A., Smelansky, I.E., Vanselow, K.A. (2020) Grasslands and shrublands of Kazakhstan and Middle Asia. In Goldstein, M., DellaSala, D., *The Encyclopedia of the World's Biomes*, Elsevier.
- B1. Bragina, T.M., Nowak, A., Vanselow, K.A., Wagner, V. (2018) Grasslands of Kazakhstan and Middle Asia: The Ecology, Conservation and Use of a Vast and Globally Important Area. In Squires, V.R., Dengler, J., Feng, H., Hua, L. (eds) *Grasslands of the World: Diversity, Management and Conservation*. CRC Press.

Journal editorials

- JE9. Sperandii, M.G., Bazzichetto, M., Mendieta-Leiva, G., Schmidtlein, S., Bott, M., de Lima, R.A.F., Pillar, V.D., Price, J.N., Wagner, V. & Chytrý, M. (2024), Towards more reproducibility in vegetation research. *Journal of Vegetation Science* 35: e13224.
- JE8. Price, J. N., Wagner, V., Pillar, V. D., & Chytrý, M. (2024). Reflecting on two and a half decades of restoration ecology in Applied Vegetation Science (1998–2023). *Applied Vegetation Science*: 27(1): e12761.
- JE7. Wagner, V., Pillar, V.D., Price, J.N., Chytrý, M. (2023) Trends in geographic and gender balance among authors. *Journal of Vegetation Science* 34: e13170.
- JE6. Chytrý, M., Pillar, V.D., Price, J.N., Wagner, V., Wiser, S.K., Zelený, D. (2023) The benefits of publishing in society-owned scientific journals. *Applied Vegetation Science* 26: e12705.
- JE5. Boch, S., Becker, T., Deák, B., Dengler, J., Wagner, V. (2020) Traditional land use, management and biodiversity of European semi-natural grasslands – Editorial to the 15th EDGG Special Feature. *Tuexenia* 40: 401–407.
- JE4. Deák, B., Becker, T., Boch, S., Dengler, J., Wagner, V. (2019) Restoration, monitoring, conservation and phytosociology of semi-natural and natural grasslands in Central Europe – Editorial to the 14th EDGG Special Feature. *Tuexenia* 39: 309–313.
- JE3. Deák, B., Becker, T., Boch, S., Wagner, V. (2018) Conservation, management and restoration of semi-natural and natural grasslands in Central Europe – Editorial to the 13th EDGG Special Feature. *Tuexenia* 38: 305–310.
- JE2. Deák, B., Wagner, V., Csecserits, A., Becker, T. (2017) Vegetation and conservation of Central-European grasslands - Editorial to the 12th EDGG Special Feature. *Tuexenia* 37: 375–378.
- JE1. Becker, T., Csecserits, A., Deák, B., Janišová, M., Sutcliffe, L. & Wagner, V. (2016) Different approaches in grassland analysis - Editorial to the 11th EDGG Grassland Special Feature. *Tuexenia* 36: 287–291.

Non-refereed articles

- NR3. Wagner, V., Pätsch, R. (2020) The Bedrock Meadows of Lake Pend Oreille. *Sage Notes* 42 (2): 3.
- NR2. Wagner, V., Pätsch, R. (2020) Bedrock Meadows: A remarkable habitat type in northwestern Montana. *Kelseya*: 1, 10.
- NR1. Spribille, T., Wagner, V. (2016) The starry breck lichen, a dry grassland species on the brink of extinction, gains IUCN status. *Bulletin of the Eurasian Dry Grassland Group* 31: 27–28.

Funding acquisition

While at the University of Alberta

Period	Funding provider/program	Title of grant	Applicant(s)/ PI(s)	Amount, % to Wagner lab, status
2024-2026	University of Alberta Rangeland Research Institute: Competitive Grant	The role of cattle as endozoochorous seed dispersers	V. Wagner	\$47,560, 100% awarded
2023-2027	Natural Sciences and Engineering Council of Canada: Alliance Grant	The invasiveness and ecological impacts of <i>Caragana</i> , a widely planted and introduced shrub in the prairie provinces	V. Wagner, J.F. Cahill	\$ 199,615, 80% awarded
2023-2024	A.F.W. Schimper Foundation	An assessment of non-native plant invasions across habitats in northern Kazakhstan.	V. Wagner	\$ 16,542, 100% awarded
2021-2023	Alberta Conservation Association: Biodiversity Grant	A cross-habitat comparison of nutrient availability and levels of invasion in Central Alberta	V. Wagner, K. Holden	\$11,095, 100% awarded

2021-2023	Alberta Conservation Association: Biodiversity Grant	Quantifying the role of soil disturbance and propagule pressure as drivers of invasion across three habitat types in central Alberta	V. Wagner, R. Murillo	\$7,710, 100% awarded
2020-2022	Alberta Conservation Association: Biodiversity Grant	Local adaptation of plains rough fescue (<i>Festuca hallii</i>) to Kentucky bluegrass (<i>Poa pratensis</i>) invasion	V. Wagner, Z. Zapisocki	\$2,430, 100% completed
2019-2026	Natural Sciences and Engineering Council of Canada: Discovery Grant	Patterns and processes of alien plant invasions across habitats	V. Wagner	\$140,000, 100% awarded
2019-2026	Natural Sciences and Engineering Council of Canada: Supplement	Patterns and processes of alien plant invasions across habitats	V. Wagner	\$12,500, 100% awarded
2019-2022	University of Alberta Rangeland Research Institute: Competitive Grant	Large-scale patterns of non-native plant invasions in Alberta grasslands	V. Wagner	\$57,690, 100% completed
2019-2020	Montana Native Plant Society	Plant diversity in bedrock meadows of north-western Montana	V. Wagner	\$1,962 completed
2019-2020	Idaho Native Plant Society	Plant diversity in bedrock meadows of northern Idaho	V. Wagner	\$1,078 completed

Teaching contribution and responsibilities

While at the University of Alberta

BIOL 208: Principles of Ecology. Instructor in 2020, 2021, and 2022

BIOL 395: Field Course in Biology, Field Botany. Instructor in 2023.

BIOL 430/530: (Advanced) Statistical Design and Analysis for Biologists. Instructor since 2018

Service to the University Community

Examining committee member: Chair of MSc and PhD exam committees (8×), MSc and PhD committee examiner (20×), PhD candidacy examiner (7×)

Service to the Department

Member of the Departmental Undergraduate Awards Committee (2024-2025)

Member of the Departmental Course Curriculum Committee (2020-2023)

Member of the Greenhouse Committee (since April 2022)

Service to the Professional Community

Editorial service

since 2022

Chief Editor, *Applied Vegetation Science*, *Journal of Vegetation Science*

since 2020

Associate Editor, *Vegetation Classification and Survey*

2020–2022

Associate Editor, *Applied Vegetation Science*

2019–2020

Editorial Board Member, *Applied Vegetation Science*

2015–2021

Associate Editor, *Tuexenia*

Fellowship selection committees

2021–2023 NSERC Scholarship and Fellowship Selection Committee for Postdoctoral and Doctoral applications, Evolution and Ecology (169)

Grant reviews

Alberta Conservation Association (ACA), Estonian Research Foundation, Czech National Science Foundation, European Research Council (ERC), German Centre for Integrative Biodiversity Research (iDiv), Hungarian Science Foundation, National Center of Science and Technology Evaluation, Natural Sciences and Engineering Research Council of Canada (NSERC)

Academic community leadership

since 2019 Carbon Footprint committee member, International Association of Vegetation Science
since 2024 Diversity, Equity and Inclusion committee member, International Association of Vegetation Science
2023–2027 Council member, International Association of Vegetation Science
2019–2023 Council member, International Association of Vegetation Science
2022–2024 Lead of the International Union for Conservation of Nature Holarctic Steppes group
2019–2023 Lead of the Social Media and Website committee, International Association of Vegetation Science

Journal article reviews

Applied Vegetation Science, Basic and Applied Ecology, Biodiversity and Conservation, Ecography, Ecological Solutions and Evidence, Flora, Forest Ecology and Management, Grassland Research, Journal of Vegetation Science, Journal of Applied Ecology, Lichenologist, Phytocoenologia, Plant Ecology, Plant and Soil, Rangeland Ecology and Management, Restoration Ecology, Science of the Total Environment, Vegetation Classification and Survey, Western Naturalist.

Media coverage

A Canadian Province Killed 463 Wolves for No Good Reason. **The Atlantic**, July 14, 2020. <https://www.theatlantic.com/science/archive/2020/07/how-simple-statistical-error-killed-463-wolves/614134/>

Killing nearly 500 wolves in a year failed to protect endangered caribou – study. **The Guardian**, July 14, 2020. <https://www.theguardian.com/environment/2020/jul/14/wolf-culls-do-not-protect-caribou-new-study-shows-aoe>

Wolf culls will not save endangered caribou in Western Canada, new study finds. **CBC**, July 15, 2020.

Statistical flaws led to B.C. wolf cull which didn't save endangered caribou as estimated. **Victoria News**, July 14, 2020. <https://www.cbc.ca/news/canada/british-columbia/wolf-cull-endangered-caribou-western-canada-1.5650167>

UM researchers find lack of government accountability on widespread herbicide use on public land. **Missoulia**. July 6, 2016. https://missoulia.com/news/local/um-researchers-find-lack-of-government-accountability-on-widespread-herbicide-use-on-public-land/article_a13ac9e9-f535-51ef-a8ce-b398b6c29e62.html

UM researchers find lack of government accountability on widespread herbicide use on public land. **Billings Gazette**, July 7, 2016. https://billingsgazette.com/news/state-and-regional/montana/um-researchers-find-lack-of-government-accountability-on-widespread-herbicide/article_63410599-6b7e-5665-9d20-3a3b38a0089a.html

Monsanto Roundup Is Used on Wildlands, but No One Knows How Much. **TakePart**, July 8, 2016, <http://www.takepart.com/article/2016/07/08/monsantos-roundup-being-sprayed-wildlands-too>

Research reveals widespread herbicide use on North American wildlands. **EurekAlert**. July 29, 2016. https://www.eurekalert.org/pub_releases/2016-06/tuom-rrw062916.php

Research Reveals Widespread Herbicide Use on North American Wildlands. *Lab Manager*, June 28, 2016.
<https://www.labmanager.com/news/research-reveals-widespread-herbicide-use-on-north-american-wildlands-9412>

Research reveals widespread herbicide use on North American wildlands. *Science Daily*, June 29, 2016.
<https://www.sciencedaily.com/releases/2016/06/160629135806.htm>

Herbicides used widely on federal, tribal wildlands, study says. *UPI*, June 29, 106.
https://www.upi.com/Science_News/2016/06/29/Herbicides-used-widely-on-federal-tribal-wildlands-study-says/8351467224796/