

**MARTIN DOVCIAK****Associate Professor and Roosevelt Forest Ecologist**

State University of New York College of Environmental Science and Forestry (SUNY ESF)  
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**EDUCATION**

Ph.D.: Forest Ecology 1995-2001  
 University of Minnesota, St. Paul, USA (Co-advisors: Peter B. Reich and Lee E. Frelich)  
 Dipl. Eng.: Forestry—Silviculture and Forest Health Focus. Landscape Ecology Minor. 1988-1993  
 Technical University in Zvolen, Slovakia (Advisor: D. Sláviková).

**PROFESSIONAL APPOINTMENTS**

Associate Professor (since 2015) and Assistant Professor (2007–2015): Plant Ecology since 2007  
 State University of New York, College of Environmental Science and Forestry, USA  
 Research Scientist in Forest Ecology and Ecosystem Management 2004–2007  
 University of Washington, School of Environmental & Forest Sciences, Seattle, USA  
 Research Scientist in Forest Landscape Ecology 2001–2004  
 Technical University in Zvolen, Department of Applied Ecology, Slovakia  
 Doctoral Fellow, CEU Fellow, and Research Assistant in Forest Ecology 1995–2001  
 University of Minnesota, Department of Forest Resources, St. Paul, MN, USA  
 International Cooperation Specialist in Environmental Education 1993–1995  
 Slovak Environmental Agency, National Headquarters, Banska Bystrica, Slovakia

**PROFESSIONAL LEADERSHIP POSITIONS**

Vice Chair, Vegetation Section of the Ecological Society of America since 2019  
 Editorial Board Member, Journal of Vegetation Science since 2014  
 Editorial Board Member, Applied Vegetation Science since 2014

**AWARDED FELLOWSHIPS & SCHOLARSHIPS**

US Department of Energy Visiting Faculty Fellow, Brookhaven National Laboratory 2019  
 Tyson Postdoctoral Fellowship in Conserv. Biology, Washington Univ., St. Louis (declined) 2004  
 European Science Foundation LinkEcol Fellow, Swiss Fed. Inst. Technology, Zurich 2003–2004  
 Doctoral Dissertation Fellow, University of Minnesota 1998–1999  
 ETP Fellow, H. H. Humphrey Institute of Public Affairs, University of Minnesota 1994–1995  
 Central European University (CEU) Scholarships, Budapest, Hungary 1994–1996  
 EU TEMPUS Scholarship, University of Wales, Bangor, UK 1992–1993  
 Merit Scholarships, Technical University in Zvolen, Slovakia 1989–1992

**OTHER HONORS, AWARDS & DISTINCTIONS**

Roosevelt Forest Ecologist & Scientist-in-Residence, Roosevelt Wild Life Station, SUNY ESF 2013  
 SUNY ESF Special Recognition Award for contributing to student success 2013  
 UNESCO Man and Biosphere Program Young Scientist Award 2002  
 NASA–Michigan State University Professional Enhancement Award 1999  
 University of Minnesota Certificate of Achievement 1995  
 Minnesota Governor Commendation 1994  
 Central European University Certificate of Distinction 1994  
 Honors Diploma, Technical University in Zvolen 1993

## COURSES, SEMINARS, AND COURSE-UNITS TAUGHT

9. **Plant Ecology & Global Change** (3 credits; Spring; annually since 2008; SUNY ESF). The impacts of global environmental changes on terrestrial plants and ecosystems examined across scales.
8. **Flowering Plants** (3 credits, Fall; annually since 2008; SUNY ESF). The evolution, ecology, and cultural significance of flowering plants with emphasis on field and lab plant identification skills.
7. **Tropical Ecology** (3 credits; Spring; co-taught; annually since 2017; SUNY ESF). Weekly discussions with a 10 or 12 day field study in the tropics (Andes to Amazon, or the Caribbean).
6. **Graduate Seminars** (1 credit; SUNY ESF). Deer Impacts on Forests (Fall 2014; co-taught), Global Change Ecology (Fall 2011), and Departmental Seminar (Fall 2009; Spring 2010; co-taught).
5. **Field Forest Ecology & Botany:** Two-day field unit in team-taught 3-credit *Ecological Monitoring & Biodiversity Assessment* course (Summers 2008, 2009, 2011; Cranberry Lake Biological Station).
4. **Introduction to Flowering Plants:** A unit in team-taught 3-credit *Diversity of Life* course (Fall; annually since 2011; SUNY ESF). Three lectures on flowering plant evolution and systematics.
3. **Natural Resource Management** (2 credits; Spring 2003; University of San Francisco—Overseas program in Hungary). Introduction to natural resource and ecosystem management.
2. **Foundations of Ecology Seminar** (1 credit; Spring 2002; Technical University in Zvolen, Slovakia). Readings and discussions of seminal papers in ecology.
1. **Landscape Ecology** (1 credit; Fall 2001; Academia Istropolitana Nova, Svätý Jur, Slovakia). Introduction to landscape ecology and land–use planning for environmental policy students.

## FUNDED RESEARCH PROJECTS (\$2.79 million in total; \$1.15 million directly to Dovciak)

22. National Science Foundation; \$322,992; 2018-2021. “Linking forest regeneration, plant distributions, and ecotone dynamics in changing mountain environments”. **M. Dovciak (PI)**.
21. USDA McIntire-Stennis Program; \$61,784; 2018-2020. “Recent changes and future trajectories of an ecosystem at the crossroads: Implications for planning, management, and conservation of Long Island Central Pine Barrens”. **M. Dovciak (PI)**, T. Green, K. Schwager (Co-PIs).
20. USDA McIntire-Stennis Program; \$64,441; 2020-2022. “Using trait-based models to project forest response to climate change”. J. Burton (PI), J. Drake, **M. Dovciak** (CoPIs).
19. Syracuse University and SUNY-ESF; \$50,000; 2019-2021. “How will New York State forests respond to environmental change in the 21<sup>st</sup> century? Establishing a statewide monitoring network of tree health”. J. Fridley and J. Stella (lead PIs), K. Becklin, J. Drake, D. Frank, C. Beier, J. Bendix, **M. Dovciak**, J. Lamit, M. Ritchie (Co-PIs).
18. New York State Department of Environm. Conservation; \$312,213; 2014-2018. “Evaluating deer impacts on forests of New York State”. **M. Dovciak (PI)**, J. Frair, J. Hurst, P. Curtis, P. Smallidge.
17. NYSERDA; \$200,000; 2015-2017. “Effects of acidic deposition and soil acidification on forest understory plant biodiversity in the Adirondack Mountains”. T. Sullivan (PI), **M. Dovciak**, G. Lawrence, T. McDonnell (\$87,001 to Dovciak).
16. Electric Power Research Institute; \$414,551; 2012-2016. “Cost effectiveness of cleaning techniques for controlling human-based transport of invasive exotic plants on electric transmission line rights-of-way in New York”. C. Nowak (PI), **M. Dovciak** (\$176,184 to Dovciak).
15. Northeastern States Research Cooperative; \$89,497; 2012-2015. “Global change fingerprints in montane boreal forests: Implications for biodiversity and management of the northeastern protected areas”. **M. Dovciak (PI)**, C. Beier, G. Lawrence, J. Battles.
14. SUNY ESF Seed Grant Program; \$6,800; 2014-2015. “Effects of mosses on the chemistry of tree seedlings and their impacts on forest regeneration” **M. Dovciak (PI)**, R. Kimmerer, C. Driscoll.

13. USDA CSREES/McIntire-Stennis Program; \$25,563; 2011-2012. “Forest change in the Adirondacks over 40 years”. **M. Dovciak (PI)**, J. Im, C. Beier.
12. CONACYT; \$5,250; 2012. “Global ecotones under climate change: developing a general theory of climate-vegetation interactions across tropical, temperate, and boreal ecotones”. **M. Dovciak (PI)**, G. Williams-Linera, J.C. Álvarez-Yépiz.
11. National Park Service; \$747,242; 2010-2013. “Appalachian Trail MEGA–transect atmospheric deposition effects study”. G. Lawrence (PI), D.A. Burns, K.C. Rice, S.W. Bailey, R. Minocha, **M. Dovciak**, D. Leopold, S. Sullivan, K.C. Weathers, A.C. Ellsworth (\$49,310 for M. Dovciak).
10. Picker Interdisciplinary Science Institute, Colgate University; \$70,000. 2012-2013. “Whole-ecosystem restoration through liming of acidified tributary streams in the Honnedaga lake basin in the Adirondack Mountains”. R. Fuller (PI), D. Josephson, C. Kraft, C. Beier, G. Lawrence, B. Balduino, C. Beier, **M. Dovciak**.
9. Northeastern States Research Cooperative; \$144,488; 2010-2012. “Impacts of acidic deposition and soil calcium depletion on terrestrial biodiversity and food webs in Northern hardwood forest ecosystems”. C. Beier (PI), M. Mitchell, J. Gibbs, **M. Dovciak**, M. Fierke.
8. USDA McIntire-Stennis Program; \$81,271; 2010-2012. “Coupling local-scale climate change and forest ecosystems”. C. Beier (PI) and **M. Dovciak**.
7. USDA McIntire-Stennis Program; \$51,126; 2010-2012. “Characterization of montane forests using remote sensing”. J. Im (PI), **M. Dovciak**, C. Beier, L. Quackenbush.
6. Northeastern States Research Cooperative; \$41,543; 2009-2010. “Importance of calcium for supporting biodiversity in acidified landscape.” C. Beier (PI), M. Mitchell, J. Gibbs, D. Leopold, **M. Dovciak**.
5. Slovak Grant Agency for Science; \$24,000; 2003-2005. “Ecology and genetics of tree invasions into abandoned pastures of the Poľana Biosphere Reserve, Slovakia.” D. Gömöry (PI), **M. Dovciak**, et al.
4. Slovak Grant Agency for Science; \$27,500; 2003-2005. “Anthropogenic changes in landscape and ecosystem processes in Štiavnické Vrchy Mountains, Slovakia”. I. Vološčuk (PI), **M. Dovciak**, et al.
3. Slovak Grant Agency for Science; \$35,300; 2003-2005. “Historical landscape-change analysis and future trends in Slovak Biosphere Reserves”. R. Midriak (PI), L. Zaušková, **M. Dovciak**, et al.
2. Man & Biosphere Program, UNESCO; \$4,300; 2002-2003. “Population dynamics and management of the common yew (*Taxus baccata*) in western Carpathian forests”. **M. Dovciak (PI)**.
1. Doctoral Dissertation Fellowship, University of Minnesota; \$12,600; 1998-1999. “White pine regeneration and recruitment in the western Great Lakes region”. **M. Dovciak (PI)**.

## **PUBLICATIONS** (62 in total; \* Graduate, † Undergraduate, and ‡ Post-doctoral Mentees)

### **Refereed Journal Articles**

43. Wason JW \*, Beier CM, Battles JJ, **Dovciak M**. 2019. Acidic deposition and climate warming as drivers of tree growth in high-elevation spruce-fir forests of the Northeastern US. *Frontiers in Forests and Global Change* 2: 63, doi: 10.3389/ffgc.2019.00063.
42. Lesser MR ‡, **Dovciak M**, Wheat R, Curtis C, Smallidge P, Hurst J, Kramer D, Roberts M, Frair J. 2019. Modelling white-tailed deer impacts on forest regeneration to inform deer management options at landscape scales. *Forest Ecology and Management* 448: 395–408.
41. Berdugo MB \*, **Dovciak M**. 2019. Bryophytes in fir waves: Forest canopy indicator species and functional diversity decline in canopy gaps. *Journal of Vegetation Science* 30: 235–246.

40. Zarfos MR \*, **Dovciak M**, Lawrence GB, McDonnell TC, Sullivan TJ. 2019. Plant richness and composition in hardwood forest understories vary along an acidic deposition and soil-chemical gradient in northeastern United States. *Plant and Soil* 438, 461–477.
39. Álvarez-Yépiz JC \*, Búrquez A, Martínez-Yrizar A, **Dovciak M**. 2019. A trait-based approach to the conservation of threatened plant species. *Oryx* 53, 429–435.
38. Stašiov S, Kubovčík V, Čiliak M, Diviaková A, Lukáčik I, Pätoprstý V, **Dovciak M**. 2019. Heterogeneity in millipede communities (Diplopoda) within a forest–forest edge–meadow habitat complex. *Acta Oecologica* 98, 6–13.
37. Berdugo MB \*, Quant JM \*, Wason JW \*, **Dovciak M**. 2018. Latitudinal patterns and environmental drivers of moss layer cover in extratropical forests. *Global Ecology and Biogeography* 27, 1213–1224.
36. Parobeková Z, Bugala M, Kardoš M, **Dovciak M**, Lukáčik I, Saniga M. 2018. Long-term changes in dwarf pine (*Pinus mugo* Turra) cover and growth in the Orava Beskid Mountains, Slovakia. *Mountain Research and Development* 38, 342–353.
35. Lawrence GB, McDonnell TC, Sullivan TJ, **Dovciak M**, Bailey SW, Antidormi MR, Zarfos MR \*. 2018. Soil base saturation combines with beech bark disease to influence composition and structure of sugar maple-beech forests in an acid rain-impacted region. *Ecosystems* 21, 795–810.
34. McDonnell TC, Reinds GJ, Sullivan TJ, Clark CM, Bonten LTC, Mol-Dijkstra JP, Wamelink GWW, **Dovciak M**. 2018. Feasibility of coupled empirical and dynamic modeling to assess climate change and air pollution impacts on temperate forest vegetation of the eastern United States. *Environmental Pollution* 234, 902–914.
33. Wason JW \*, **Dovciak M**. 2017. Tree demography suggests multiple directions and drivers for species range shifts in mountains of Northeastern United States. *Global Change Biology* 23, 3335–3347.
32. Wason JW \*, Bevilacqua E, **Dovciak M**. 2017. Climates on the move: Implications of climate warming for species distributions in mountains of the northeastern United States. *Agricultural and Forest Meteorology* 246, 272–280.
31. Wason JW \*, **Dovciak M**, Beier CM, Battles JJ. 2017. Tree growth is more sensitive than species distributions to recent changes in climate and acidic deposition in the northeastern United States. *Journal of Applied Ecology* 54, 1648–1657.
30. Jaloviar P, Saniga M, Kucbel S, Pittner J, Vencurik J, **Dovciak M**. 2017. Seven decades of change in a European old-growth forest following a stand-replacing wind disturbance: A long-term case study. *Forest Ecology and Management* 399, 197–205.
29. Alvarez-Yepiz JC \*, Burquez A, Martinez-Yrizar A, Teece M, Yopez EA, **Dovciak M**. 2017. Resource partitioning by evergreen and deciduous species in a tropical dry forest. *Oecologia* 183, 607–618.
28. Wiezik M, Gally I, Wiezikova A, Čiliak M, **Dovciak M**. 2017. Spatial structure of traditional land organization allows long-term persistence of large *Formica exsecta* supercolony in actively managed agricultural landscape. *Journal of Insect Conservation* 21, 257–266.
27. Raney PA \*, Leopold DJ, **Dovciak M**, Beier C. 2016. Hydrologic position mediates sensitivity of tree growth to climate: Groundwater subsidies provide a thermal buffer effect in wetlands. *Forest Ecology and Management* 379, 70–80.
26. Álvarez-Yépiz JC \*, **Dovciak M**. 2015. Enhancing ecosystem function through conservation: threatened plants increase local carbon storage in tropical dry forests. *Tropical Conservation Science* 8, 999–1008.
25. **Dovciak M**, Hrivnák R, Ujházy K, Gömöry D. 2015. Patterns of grassland invasions by trees: insights from demographic and genetic spatial analyses. *Journal of Plant Ecology* 8, 468–479.

24. Wiezik M, Svitok M, Wieziková A, **Dovčiak M**. 2015. Identifying shifts in leaf-litter ant assemblages (Hymenoptera: Formicidae) across ecosystem boundaries using multiple sampling methods. *PLoS ONE* 10(7): e0134502. DOI:10.1371/journal.pone.0134502.
23. Westerband A †, **Dovčiak M**, LaQuay-Velázquez G, Medeiros J. 2015. Aspect reduces soil moisture and tree cover, but not nitrogen mineralization or grass cover in semi-arid pinyon-juniper woodlands of the southwestern United States. *Southwestern Naturalist* 60, 21-29.
22. Steen DA, Osborne PA \*, **Dovčiak M**, Patrick D, Gibbs JP. 2015. A preliminary investigation into the short-term effects of a prescribed fire on habitat quality for a snake assemblage. *Herpetological Conservation and Biology*, 10, 263–272.
21. Álvarez-Yépiz JC \*, Búrquez A, **Dovčiak M**. 2014. Ontogenetic shifts in plant-plant interactions in a rare cycad within angiosperm communities. *Oecologia* 175, 725-735.
20. **Dovčiak M**, Brown J †. 2014. Secondary edge effects in regenerating forest landscapes: vegetation and microclimate patterns and their implications for management and conservation. *New Forests* 45, 733-744.
19. Giencke L \*, **Dovčiak M**, Mountrakis G, Cale J \*, Mitchell M. 2014. Beech bark disease: Spatial patterns of thicket formation and disease spread in an aftermath forest in the northeastern United States. *Canadian Journal of Forest Research* 44, 1042-1050.
18. Halpern CB, **Dovčiak M**, Urgenson LS, Evans SA. 2014. Substrates mediate responses of forest bryophytes to a gradient in overstory retention. *Canadian Journal of Forest Research* 44, 855-866.
17. Álvarez-Yépiz JC\*, Cueva A, **Dovčiak M**, Teece M, Yépez E. 2014. Ontogenetic resource-use strategies in a rare long-lived cycad along environmental gradients. *Conservation Physiology* 2: doi:10.1093/conphys/cou034.
16. **Dovčiak M**, Osborne PA \*, Patrick DA, Gibbs JP. 2013. Conservation potential of prescribed fire for maintaining habitats and populations of an endangered rattlesnake, *Sistrurus c. catenatus*. *Endangered Species Research* 22, 51-60.
15. Wiezik M, Svitok M, Wieziková A, **Dovčiak M**. 2013. Shrub encroachment alters composition and diversity of ant communities in abandoned grasslands of western Carpathians. *Biodiversity and Conservation* 22, 2305-2320.
14. Frelich LE, Peterson RO, **Dovčiak M**, Reich PB, Vucetich JA, Eisenhauer N. 2012. Trophic cascades, invasive species, and body-size hierarchies interactively modulate climate change responses of ecotonal temperate-boreal forest. *Philosophical Transactions of the Royal Society B* 367, 2955-2961.
13. Beier CM, Stella JA, **Dovčiak M**, McNulty SA. 2012. Local climatic drivers of changes in phenology at a boreal-temperate ecotone in Eastern North America. *Climatic Change* 115, 399-417.
12. Halpern CB, Halaj J, Evans SA, **Dovčiak M**. 2012. Level and pattern of overstory retention interact to shape long-term responses of understories to timber harvest. *Ecological Applications* 22, 2049–2064.
11. Beier CM, Woods AM, Hotopp KP, Gibbs JP, Mitchell MJ, **Dovčiak M**, Leopold DJ, Lawrence GB, Page BD. 2012. Changes in faunal and vegetation communities along a soil calcium gradient in northern hardwood forests. *Canadian Journal of Forest Research* 42, 1141–1152.
10. Álvarez-Yépiz JC \*, **Dovčiak M**, Búrquez A. 2011. Persistence of a rare ancient cycad: effects of environment and demography. *Biological Conservation* 144, 122-130.
9. **Dovčiak M**, Halpern CB. 2010. Positive diversity–stability relationships in forest herb populations during four decades of community assembly. *Ecology Letters* 13, 1300–1309.

8. Sprugel DG, Rauscher KG \*, Gersonde R, **Dovčiak M**, Lutz JA \*, Halpern CB. 2009. Spatially explicit modeling of overstory manipulations in young forests: effects on stand structure and light. *Ecological Modelling* 220, 3565–3575.
7. **Dovčiak M**, Hrivnák R, Ujházy K, Gömöry D. 2008. Seed rain and environmental controls on invasion of *Picea abies* into grassland. *Plant Ecology* 194, 135–148.
6. Wiezik M \*, Svitok M \*, **Dovčiak M**. 2007. Conifer introductions decrease richness and alter composition of litter-dwelling beetles (Coleoptera) in Carpathian oak forests. *Forest Ecology and Management* 247, 61–71.
5. **Dovčiak M**, Halpern CB, Saracco JF, Evans SA, Liguori DA †. 2006. Persistence of ground-layer bryophytes in a structural-retention experiment: initial effects of level and pattern of overstory retention. *Canadian Journal of Forest Research* 36, 3039–3052.
4. **Dovčiak M**, Frelich LE, Reich PB. 2005. Pathways in old-field succession to white pine: seed rain, shade, and climate effects. *Ecological Monographs* 75, 363–378.
3. **Dovčiak M**, Reich PB, Frelich LE. 2003. Seed rain, safe sites, competing vegetation, and soil resources spatially structure white pine (*Pinus strobus* L.) regeneration and recruitment. *Canadian Journal of Forest Research* 33, 1892–1904.
2. **Dovčiak M**, Carlson D \*, Janečka P \*, Paule L. 2003. Natural regeneration of common yew (*Taxus baccata*) in the western Carpathians. *Ecological Studies* 5, 185–191. (In Slovak).
1. **Dovčiak M**, Frelich LE, Reich PB. 2001. Discordance in spatial patterns of white pine (*Pinus strobus*) size-classes in a patchy near-boreal forest. *Journal of Ecology* 89, 280–291.

### Books & Monographs

4. Sullivan TJ, Zarfos MR \*, **Dovciak M**, McDonnell TC, Lawrence GB. 2017. Effects of Acidic Deposition on the Biodiversity of Forest Understory Plant Communities in the Northern Hardwood Forests of the Adirondack Mountains. New York State Energy Research and Development Authority, Albany, NY. 86 pages.
3. Lawrence GB, Sullivan TJ, Burns DA, Bailey SA, Cosby BJ, **Dovčiak M**, Ewing HA, McDonnell TC, Minocha R, Riemann R, Quant J\*, Rice KC, Siemion J, Weathers K. 2015. Acidic Deposition along the Appalachian Trail Corridor and its Effects on Acid-Sensitive Terrestrial and Aquatic Resources. Results of the Appalachian Trail MegaTransect Study. Natural Resource Report. NPS/NRSS/ARD/NRR—2015/996. Fort Collins, Colorado. Published Report-2223220. 349 pages.
2. Gömöry D, **Dovčiak M**, Gömöryová E, Hrivnák R, Janišová M, Ujházy K. 2006. Demecological, Synecological and Genetic Aspects of the Colonization of Abandoned Pastures and Meadows by Forest Trees. *Scientific Studies* 155/2006/B, Technical Univerzity in Zvolen, 92 pp. (In Slovak).
1. Perry J, Tichý J, Imbert JB, Sudmeier-Rieux K, **Dovčiak M**, Maloveský M, Baranyi A. 2001. Ecosystem Management in Central and Eastern Europe: Decision-Taking for the Future. E. Vanderklein (ed.), Bang Printing, Brainerd, MN, 293 pages.

### Extension & Outreach Publications

13. Quant JM, Nowak CA, and **Dovciak M**. 2016. Human-based spread of invasive plants from powerline corridors in New York State. In J. Doucet (editor). *Environmental Concerns in Rights-of-Way Management*. Proceedings from the Environmental Concerns in Rights-of-Way Management: 11th International Symposium, Halifax, Nova Scotia, Canada, 20-23 Sept. 2015. Utility Arborist Association, Champaign, Illinois, U.S. Pages 87-96. ISBN 978-1-58301-340-3.
12. Nowak C, Quant J, and **Dovčiak M**. 2015. Understanding Human-Based Transport of Invasive Exotic Plants on Electric Transmission Line Rights-of-Way: Developing an Empirical Basis For Deciding When to Clean People and Vehicles to Minimize Inadvertent Transport of Invasive

Exotic Plants From Powerline Corridors. Technical Update, Report No. 3002006331. Electric Power Research Institute, Palo Alto, CA.

11. Quant J, Nowak C, and **Dovčiak M**. 2015. Literature syntheses of select invasive exotic plants common on electric transmission rights-of-way: Biology and ecology. Technical Report, Report No. 300200746, Electric Power Research Institute, Palo Alto, CA.
10. Nowak C, Quant J, **Dovčiak M**. 2014. Cost Effectiveness of Cleaning Techniques for Controlling Human-Based Transport of Invasive Exotic Plants on Electric Transmission Line Rights-of-Way. 3<sup>rd</sup> Technical Update, Report No. 3002003572, Electric Power Research Institute, Palo Alto, CA.
9. Nowak C, Quant J\*, Hopper E\*, Bartholomew C\*, **Dovčiak M**. 2013. Cost Effectiveness of Cleaning Techniques for Controlling Human-Based Transport of Invasive Exotic Plants on Electric Transmission Line Rights-of-Way, 2<sup>nd</sup> Technical Update. Report No. 3002001189, Electric Power Research Institute, Palo Alto, CA. 74 pages.
8. Nowak C, **Dovčiak M**, Ballard J, Chan T †, MacKellar K \*, Peck C \*, Rutte L †, Quant J \*. 2012. Cost Effectiveness of Cleaning Techniques for Controlling Human-Based Transport of Invasive Exotic Plants on Electric Transmission Line Rights-of-Way across New York. EPRI, Palo Alto, CA, 58 pages.
7. Gömöry D, Ujházy K, Hrivnák R, Janišová M, **Dovčiak M**, Gömöryová E, Strelcová K, Chudý F, Tunák D, Paule L. 2006. Ecology and Genetics of Tree Invasions into Non-Forest Areas of Príslop Mountain Pass. In: D. Sláviková (ed.), Poľana Biosphere Reserve: Status 15 Years After Establishment. Technical University in Zvolen, Slovakia (In Slovak).
6. **Dovčiak M**. 2003. Population Dynamics of the Endangered Common Yew (*Taxus baccata* L.) and its Management Implications for Biosphere Reserves of the Western Carpathians. UNESCO MAB Program, Paris, France, 37 pages.
5. Slovak Ministry of the Environment. 2003. Primeval Forests of Slovakia. Nomination Project for UNESCO World Heritage Site. Bratislava, Slovakia (M.D. role: technical editing and translation).
4. **Dovčiak M**. 2002. Dynamics of Forest Communities and Sustainability Principles. In: R. Midriak (ed.), Proceedings of the 4th National Conference on Biosphere Reserves of Slovakia, Rožňava, Slovakia, Oct. 28–29. Technical University in Zvolen, Slovak Karst Biosphere Reserve, and Slovak National MAB Committee, pages 55–61 (In Slovak).
3. **Dovčiak M**. 2000. White Pine (*Pinus strobus*) Regeneration in Minnesota. In Implementation of the White Pine Initiative. FY99 Report to the Minnesota Forest Resources Council. Division of Forestry, Minnesota Department of Natural Resources, St. Paul, MN, USA.
2. Hilbert H, Benko V, **Dovčiak M**. 1994. GIS Training and Application Center: Action Plan and Statute. Slovak Environmental Agency. Banská Bystrica, Slovakia.
1. Slovak Environmental Agency. 1993. Mountain Regions of Central Slovakia: Excursion Guide. European Union Conference on Mountain Regions, Oct. 28–30, Banská Bystrica, Slovakia. (M.D. role: wrote sections, technical editing, translation).

## Theses

2. **Dovčiak M**. 2001. Spatial Patterns of White Pine (*Pinus strobus*) Regeneration in Relation to Seed Rain, Safe Sites, Competing Vegetation and Resources. PhD Thesis, University of Minnesota.
1. **Dovčiak M**. 1993. Land-Use Analysis and Plan for Forest Meadows of the Poľana Biosphere Reserve, Slovakia. Diploma Thesis, Technical University in Zvolen, Slovakia (in Slovak).

## STUDENTS, POSTDOCS, & ACADEMIC STAFF MENTORED

### Postdoctoral Scientists and Research Staff

3. Dr. Mark Lesser (March 2014 to July 2015; co-advised by J. Frair). Evaluating deer impacts on forests of New York State.
2. Dr. Juan C. Alvarez-Yepiz (May to August 2014). Ecology and functional significance of an endangered cycad *Dioon sonorense* in northwestern Mexico.
1. Juliana Quant, MS, Research Analyst (2014-2016). Vegetation management and the spread of non-native plants on electric power line corridors across New York (co-advised with C. Nowak).

### Current Graduate Students

6. Michael (Whalen) Zarfos, Ph.D. Candidate. Effects of soil acidification on forest health and biodiversity in the Adirondack Mountains (since April 2015; Candidacy examination passed in November 2017; co-advised with S. Farrell).
5. Margaret Roberts, Ph.D. Candidate. Effects of land-use legacies on plant species turnover, diversity, and function in Great Smoky Mountains National Park (since September 2015; Candidacy examination passed in April 2018).
4. Mariano Arias, Ph.D. Candidate. Impacts of climate, land-use, and biotic factors on the dispersion of myrmecochorous plants through uncoupling of plant-ant interactions (since September 2015; Candidacy examination passed in May 2019).
3. Jordon Tourville, Ph.D. Student. Tree species responses to global environmental changes and biotic controls and tree species distributions in the northeastern U.S. (since August 2018).
2. Joanna Isadora Lumbsden-Pinto, Ph.D. Student. Ecological drivers and patterns of change in pitch pine-oak ecosystem on Long Island, New York (since January 2019).
1. Dylan Finley, MS student. Developing a unified framework for prioritizing the management of non-native invasive species in New York State (since August 2019; co-advised with Dr. Dean, New York Natural Heritage Program).

### Completed Graduate Students

13. Monica B. Berdugo Moreno, Ph.D. 2018. Role of ground-level bryophytes in forest regeneration dynamics (co-advised by R. Kimmerer). Current position: Post-Doctoral Associate, University of Marburg, Germany.
12. Jay Ward Wason III, Ph.D. 2016. Environmental controls on forest tree species growth and distributions along elevation gradients in the northeastern United States. Current position: Assistant Professor, University of Maine.
11. Juan Carlos Álvarez-Yépiz, Ph.D. 2014. Mechanisms of coexistence in the ancient cycad *Dioon sonorense*, Mexico. Current position: Associate Professor, the Sonoran Institute of Technology, Mexico.
10. Stephen Langdon, M.S. 2014. Vegetation structure of a black spruce peatland in the Adirondacks of New York State. Current position: Director, Shingle Shanty Preserve and Research Station, NY.
9. Juliana Quant, M.S. 2014. Forest communities along soil, deposition, and climate gradients of the Appalachian Trail (co-advised by D. Leopold). Current position: Stewardship Specialist, Natural Heritage Trust (Long Island Region), New York.
8. Anna Ganzia ‡, M.P.S. 2013. Management and dispersal ecology of selected invasive plant species of concern in New York State power line corridors (co-advised with J. Gibbs). Current position: Research aide, Gurevitch Lab, SUNY Stony Brook University
7. Olga Shevtsova ‡, M.P.S. 2013. Management and dispersal ecology of selected invasive plant species of concern in New York State power line corridors (co-advised with J. Gibbs).



6. Nataliia Shynkarenko ‡, M.P.S. 2013. Management and dispersal ecology of selected invasive plant species of concern in New York State power line corridors (co-advised with J. Gibbs).
5. María Elena Gutiérrez Lagoueyte, M.S. 2012. Vegetation-environment relationships under current and future climate in the páramos, tropical high mountain ecosystems of Colombia. Current position: Assistant Professor, Antioquia School of Engineering, Medellin, Colombia
4. Keith Cardinali, M.P.S. 2012. Enhancement and stabilization of a stormwater retention basin, Salina, New York. Current position: Scientist, O'Brian & Gere, Syracuse, New York.
3. Portia Osborne, M.S. 2011. Plant community response to disturbance in old fields in central New York: Applications to management of a rare snake. Current position: Biologist, Blanton & Associates, Inc., Austin, Texas.
2. Michael Lee Davis, M.P.S. 2011. Identifying shifts in the northern hardwood-boreal ecotone at Whiteface Mountain, New York. Current position: Ecological Monitoring Program Director, Great Basin Institute, Nevada.
1. Lisa Giencke, M.S. 2010. Spatiotemporal dynamics of an Adirondack forest. Current position: Lead Plant Ecology Technician, Joseph W. Jones Ecological Research Center, Ichauway, Georgia.

Note: ‡ Double-degree exchange program with National University of Kiev-Mohyla Academy, Ukraine.

### Graduate Teaching Assistants and Instructors Mentored

- Plant ecology & global change ecology (10): A. Cortese (2020), M. Roberts (2016-2019), J. Wason (2015), J. Saville (2014), A. Oluwafunmilayo (2013), J.C. Alvarez-Yepiz (2012), P. Osborne (2011), L. Davis (2010), J. Gawronski-Salerno (2009), K. Hajek (2008)
- Plant taxonomy & evolution (8): J. Tourville (2018-2019), J. Molloy (2017), A. Petzke (2016), L. Yegorova (2014-2015), A. Pachomski (2013), J.C. Alvarez-Yepiz (2011), M. Farrell (2009), K. Hajek (2008)

### Graduate Student Advisory or Exam Committees (excluding own students)

- Member of 27 student advisory committees (7 PhD, 18 MS, 2 MPS), including at Syracuse University (3) and University of Washington (1). [24 students completed: 6 PhD, 16 MS, 2 MPS]
- Examiner or Chair for additional 26 Ph.D. defenses, Ph.D. candidacy exams, or M.S. defenses at SUNY ESF or Syracuse University (not including student committees above).

### Undergraduate Research Projects Mentored

17. Katie Beeles, Fall 2019- Spring 2020  
Comparing light environments under canopy and in gaps in mesic forests of northeastern US.
16. Broderick DeAngelis and Benjamin Knowlton, Brookhaven National Lab Interns, Summer 2019.  
The effects of canopy cover and oak dominance on ground leaf litter and duff layers in the Long Island Central Pine Barrens (Co-advised)
15. Emily Russavage and Jake Thiele, Brookhaven National Lab Interns, Summer 2019.  
Comparison of three canopy cover estimation techniques in Long Island Central Pine Barrens (Co-advised)
14. Haley Gladitsch and Haley Welshoff, Brookhaven National Lab Interns, Summer 2019.  
Characterizing the abundance of pitch pine (*Pinus rigida*) regeneration in relation to ericaceous understory abundance in the Long Island Central Pine Barrens (Co-advised)
13. Jordan Jessamy and Rebecca Rolnick, Brookhaven National Lab Interns, Summer 2019.  
Transition in the size class distribution of pitch pine (*Pinus rigida*) and oak (*Quercus spp*) in pine- and oak-dominated forest communities within the Long Island Central Pine Barrens (Co-advised).
12. James Molloy, Plant Ecology Intern, Spring 2016.

Grasses of Adirondack forest understories: species list and identification.

11. Lindsay Rute, CSTEP Student and Undergraduate Research Fellow, 2012-2013  
Propagule dispersal and germination ecology of invasive plants on electric transmission line rights of way in New York State.
10. Adam Busman, NSF UMEB Scholar, Field Botany & Forestry Research Aide, 2012-2013.  
Forest dynamics and growth-rates of red spruce along elevation gradients on Whiteface Mountain relative to regional climate change.
9. Devin Hansen, CSTEP Undergraduate Research Fellow, 2013, and Lab Intern 2014-2015  
The effects of vegetation management on power-line corridors in New York on invasive plants.
8. Martin Holdrege, NSF UMEB Scholar, Honors student, 2010-2013  
Overstory-understory relationships and light environment in an Adirondack old growth forest.
7. Ashley Campbell, NSF Environmental Scholar, March-September 2012  
Distribution of selected invasive plant species in Central New York State Parks.
6. Gennaro Falco, NSF UMEB Scholar, 2009-2011  
Environmental controls of northern hardwood-boreal ecotone in the Adirondack Mts.
5. Briana Boaz, Plant Ecology Intern, Fall 2011  
Climate variability (temperature, humidity) along the Appalachian Trail Mega-transect.
4. Anthony Vicente, Roosevelt Intern at Huntington Wildlife Forest, 2009-2011  
Microclimate and vegetation changes with elevation on Whiteface Mtn., Adirondacks.
3. Andrea Westerband, Sevilleta LTER REU Intern, 2009-2010 (Co-advised w/J. Medeiros)  
Effects of topography on pinyon-juniper woodland in the Los Pinos Mts., New Mexico.
2. Jordan Brown, NSF UMEB Scholar, 2008-2009  
Microclimate and vegetation gradients across forest edges created by timber harvest.
1. Andrej Súľovský, UROP Program Intern at Technical University in Zvolen, Slovakia, 2004-2005.  
Forest management impacts on vascular plant diversity, Poľana Mts., Slovakia.

### **Undergraduate Teaching Assistants Mentored**

- Botany: H. Brown (2019), T. Boria (2018)

### **General Undergraduate Advising**

- Academic advisor to > 130 undergraduate students (in total) enrolled in the Environmental Biology and Conservation Biology majors, SUNY-ESF (2007-present)
- Faculty mentor in SUNY ESF Learning Community Retreat for incoming freshmen.
- Faculty mentor/judge for student field research projects during the course Ecological Monitoring & Assessment (EFB 202) at the Cranberry Lake Biological Station, SUNY-ESF.
- Faculty mentor: Onondaga Lake Bioblitz (Fall 2014) and Onondaga Creek Ecoblitz (Fall 2007)

## **PRESENTATIONS**

### **Research & Outreach Seminars Given (including invited)**

25. Brookhaven National Laboratory (2019). “Pine Barrens at the Crossroads: Effects of Changing Environmental Conditions on Forest Health” (**invited**).
24. SUNY ESF Alumni Reunion, Port Jefferson, Long Island (2018). “Recent changes and future trajectories of an ecosystem at the crossroads: Implications for planning, management, and conservation of Long Island Central Pine Barrens” (**invited**).

23. Ontario Vegetation Management Association, Annual Meeting, Kingston (2017). Spread of invasive non-native plant propagules by vegetation management in powerline corridors: Equipment cleaning recommendations to manage invasive weeds on ROWs” **(invited)**.
22. New York Society of American Foresters, Invasive Forest Plants Workshop, Syracuse (2017). “Climate change and its relationship to invasive plants in forested landscapes” **(invited)**.
21. CEATI International Inc., Centre for Energy Advancement Through Technical Innovation Vegetation Management Task Force (2016). “Human-based spread of invasive plants from powerline corridors in New York State” **(invited)**, webinar for applied audience from the electric utility industry from across the United States and Canada).
20. Cornell University, Ithaca (2015). “The spread and impact of invasive plant species in forested landscapes under changing climate” **(invited)**.
19. University of Connecticut, Storrs (2015). “Understanding, conserving, and managing forest ecosystems and forest edges in fragmented human-dominated landscapes” **(invited)**.
18. SUNY ESF Outreach, Syracuse (2014). “Team-Based Learning: Tools, Challenges, and Rewards”.
17. University of Massachusetts, Amherst (2013). “Linking plant population and community ecology under global change: Implications for conservation and ecosystem management” **(invited)**.
16. Canadian Botanical Association, Annual Meeting, Kamloops, British Columbia (2013). Symposium speaker “Conserving bryophytes in working forests: insights from the Demonstration of Ecosystem Management Options (DEMO) Experiment” **(invited)**.
15. USDA Forest Service, Forest Sciences Laboratory & Alleghany National Forest (2011). “Forest ecosystem management effects on plant community composition, diversity and stability” **(invited)**.
14. Utica College, Biology department (2011). “Forest management changes plant community composition, diversity, and stability in the Pacific Northwest” **(invited)**.
13. Syracuse Botanical Club, Syracuse, New York (2011). “Plant invaders and natives of North America and Europe” **(invited)**.
12. SUNY ESF, Biology Ecolunch Seminar, (2010). “Forest management changes microclimate and bryophyte diversity in the Cascade Mts. of western Washington”.
11. Syracuse University, Biology department (2009). “Stability of plant populations and communities in times of global change” **(invited)**.
10. Syracuse Botanical Club, Syracuse, New York (2009). “Plants of the Carpathians” **(invited)**.
9. Connecticut College, Botany and Biology departments (2009). “Integrating plant population and community ecology: implications for theory, conservation, and management” **(invited)**.
8. Focus the Nation: Global warming solutions for America, Syracuse University (2008) “What controls tree species migrations?”
7. SUNY ESF, Biology Ecolunch Seminar, (2007), “Effects of forest management on plant communities in the Pacific Northwest forests”.
6. SUNY ESF, Biology department (2006). “Integrating plant population and community ecology: implications for theory, conservation, and management” **(invited)**.
5. Mountain forest ecology workshop, Swiss Federal Institute of Technology, Zürich, Switzerland (2004). “From tree population dynamics to forest community stability: Does diversity matter?”
4. Polish Academy of Sciences, Institute of Dendrology, Kornik, Poland (2002). “Population dynamics of white pine (*Pinus strobus*) in U.S. near-boreal mixed forests” **(invited)**.
3. Cedar Creek Research Symposium, University of Minnesota, St. Paul (2001). “Spatial and temporal patterns of white pine invasion into old fields”.

2. University of Minnesota, Doctoral Dissertation Fellows Seminar Series (1999). “Constructing a scale-integrated model for white pine management” (**invited**).
1. University of Minnesota, Department of Forest Resources Seminar (1998). “Spatial patterns of white pine regeneration in relation to seed rain, competing vegetation, and resources”.

### **Course Guest Lectures Given & Field Trips Lead**

- 2 guest lectures on Long Island Pine Barrens management and conservation- one for the SULI undergraduate internship program at Brookhaven National Laboratory of the US Department of Energy and one for a landscape architecture course (LSA496/696) at SUNY ESF (both 2019).
- 11 guest lectures in Diversity of Plants (EFB 326) on flowering plant evolution and systematics, SUNY ESF (annually since 2009).
- Onondaga Lake Bioblitz: Introduction to and field survey of the vascular plants of the upland ecosystems of the Onondaga Lake with SUNY ESF students and public (Sept. 12-13, 2014).
- 3 guest lectures in Conservation Biology (BIO 415/615) on forest ecosystem management and biodiversity conservation. Biology Department, Syracuse University (2008-2010).
- Guest lecture in Environmental and Forest Biology Core Course (EFB 796) on global environmental change and tree species migrations, SUNY ESF (2009).
- Guest lecture in Introduction to Conservation Biology (EFB 413) on forest fragmentation, SUNY ESF (2008).
- Guest lecture in General Ecology (EFB 320) on forest ecosystem management, SUNY ESF (2007).
- Onondaga Creek Ecoblitz: Field survey of vascular plant communities of the Onondaga Creek with SUNY ESF students and public (September 22, 2007).
- Guest lecture and field trip co-leader on landscape ecology of Banská Štiavnica UNESCO World Heritage Site for the Geostatistics for Landscape Ecology-joint International Graduate Course offered by University of Klagenfurt, Austria, and Tech. Univ. Zvolen, Slovakia: (June 2002).
- Field trip (co-leader) for European Union Conference on Mountain Regions, Slovak Environmental Agency, Banská Bystrica, Slovakia: Economy and ecology of the Western Carpathians (Oct. 1993).
- Field trip (co-leader) for the Central European University in Budapest, Hungary: The ecology, conservation, and management of the Poľana Biosphere Reserve, Slovakia (July 1993).

### **Conference Contributions** (\* graduate and † undergraduate student, ‡ presenter)

54. Zarfos MR<sup>\*</sup>, Dovciak M, Lawrence GB, McDonnell TC. 2019. Why is the composition of tree seedling communities shifting across the Adirondacks? Adirondack Research Forum, Old Forge, New York, March 6-7.
53. Zarfos MR<sup>\*</sup>, Dovciak M, Lawrence GB, McDonnell TC, Sullivan TJ. 2017. Effects of acidic deposition and a soil acidification gradient on forest understory plant richness and composition in the Adirondack Mountains, New York. Ecological Society of America, Annual Meeting, Portland, Oregon, August 6-11.
52. Kramer D<sup>‡</sup>, Lesser M, Wheat R, Dovciak M, Hurst J, Frair J. 2017. Evaluating the influence of white-tailed deer on forest regeneration at landscape scales in New York. The Wildlife Society 24<sup>th</sup> Annual Conference, Albuquerque, New Mexico, September 23-27.
51. Dovciak M<sup>‡</sup>, Wason J<sup>\*</sup>, Lesser M, Hurst J, Frair J. 2017. Climate and other drivers of forest understory plant richness and composition in the Adirondacks and New York State. Adirondack Research Forum, Old Forge, New York, March 1.
50. Whalen M<sup>\*</sup>, Dovciak M, Lawrence G, McDonnell T, Sullivan T. 2017. Exploring legacy effects of acid deposition on northern hardwood understory plant community dynamics. Adirondack Research Forum, Old Forge, New York, March 1.

49. Sullivan T<sup>‡</sup>, McDonnell T, Beier C, Belyazid S, Burns D, Clark C, Cosby B, Dovciak M, Driscoll C, Jackson W, Lawrence G, Reinds G, Sams C, Shao S, Whalen M\*. 2016. Ecosystem recovery from S and N deposition and associated critical loads in context of changing climate. NAPD Fall Meeting, Santa Fe, NM. Oct. 31- Nov. 4.
48. Dovciak M<sup>‡</sup>, Wason J, Lesser M, Hurst J, Frair J. 2016. Warming climate may negatively affect native forest understory plant richness and composition by increasing invasions of non-native plants. American Geophysical Union Fall Meeting, San Francisco, CA, Dec. 12-16.
47. Lawrence GB <sup>‡</sup>, Sullivan TJ, McDonnell TC, Bailey SW, Dovciak M, Antidormi MR. 2016. Influence of soil-base availability on composition and structure of Adirondack, NY, sugar maple-beech forests. Soil Science Society of America Annual Meeting, Phoenix, AZ, Nov. 6-9.
46. Nowak C <sup>‡</sup>, Quant J, Dovciak M. 2016. Human-based spread of invasive plants from powerline corridors in New York State. Invited paper presented at the Annual Utility Arborist Association New York Fall Regional Meeting, Liverpool, NY. Oct. 13.
45. Dovciak M <sup>‡</sup>, Wason J, Lesser M, Hurst J, Frair J. 2016. Ecological drivers of native and non-native forest plant species diversity and composition in New York State. Ecological Society of America, Annual Meeting, Ft. Lauderdale, FL, Aug. 7-12.
44. Langdon S <sup>\*\*</sup>, Dovciak M, Leopold DJ. 2016. Adirondack boreal peatland community tree demographics: Implications for biodiversity conservation management. Adirondack Research Consortium 23<sup>rd</sup> Annual Conference on the Adirondacks, May 25-26, Lake Placid, NY.
43. Quant J, Nowak C<sup>‡</sup>, Dovciak M. 2016. Human-based spread of invasive plants from powerline corridors in New York State. Workshop and co-joined webinar presented for Environmental Energy Alliance of New York, April 7, 2016, Albany, NY (workshop participants from the electric utility industry, New York State Department of Environmental Conservation, and the New York State Public Service Commission).
42. Dovciak M<sup>‡</sup>, Whalen M\*, McDonnell T, Lawrence G, Sullivan T. 2016. Patterns of acidic deposition, soil acidification, and forest understory plant biodiversity in the Adirondack Mountains. Adirondack Research Forum, Old Forge, New York, March 2 (planned).
41. Dovciak M<sup>‡</sup>, Frair J, Lesser M, Wason J\*, Roberts M\*, Hurst J, Curtis P, Smalledge P, Sullivan K. 2016. Ecological impacts of white-tailed deer on New York forests. Wildlife Research and Management Support Networking Conference, SUNY ESF Roosevelt Wild Life Station and NYS Department of Environmental Conservation, Syracuse, January 27.
40. Wason J<sup>‡</sup>, Dovciak M, Bevilacqua E. 2015. Mountain climates on the move: Implications for past and future vegetation shifts in the northeastern United States. American Geophysical Union Fall Meeting, San Francisco, December 14-18.
39. Lawrence G<sup>‡</sup>, Sullivan T, Burns D, Bailey S, Cosby B, Dovciak M, Ewing H, McDonnell T, Riemann R, Quant J, Rice K, Siemion J, Weathers K. 2015. Acidic deposition along the Appalachian Trail corridor and its effects on acid-sensitive terrestrial and aquatic resources. American Geophysical Union Fall Meeting, San Francisco, December 14-18.
38. Quant JM<sup>‡</sup>, Nowak CA, Dovciak M. 2015. Human-based spread of invasive plants from powerline corridors in New York state. Environmental Concerns in Rights-of-Way, 11<sup>th</sup> International ROW Symposium, Halifax, Nova Scotia, Canada, September 20-23, 2015.
37. Lesser MR<sup>‡</sup>, Curtis P, Hurst J, Frair J, Dovciak M. 2015. Oh deer, what can the matter be? Evaluating deer impacts on forest regeneration in New York State. Ecological Society of America, Annual Meeting, Baltimore, MD, Aug. 9-14.
36. Quant JM<sup>‡</sup>, Nowak CA, Dovciak M. 2015. Quantifying inadvertent invasive plant transport from powerline rights-of-way in New York State. Ecological Society of America, Annual Meeting, Baltimore, MD, Aug. 9-14.

35. Wason J<sup>‡</sup>, Dovčiak M. 2015. Demographic responses of tree communities relative to recent environmental change in northeastern mountain forests. Ecological Society of America, Annual Meeting, Baltimore, MD, Aug. 9-14.
34. Lesser MR<sup>‡</sup>, Curtis P, Hurst J, Frair J, Dovčiak M. 2015. Deer impacts on forest regeneration at spatial scales relevant to management decisions. 71<sup>st</sup> Annual Northeast Fish and Wildlife Conference, April 19-21, Newport, Rhode Island.
33. Dovčiak, M<sup>‡</sup>. 2015. Global change fingerprints in mountain spruce-fir forests: Implications for biodiversity and management of the northeastern protected areas. Adirondack Research Forum, Old Forge, New York, March 12.
32. Wason J<sup>‡</sup>, Dovčiak, M. 2015. Evidence of elevational shifts in northeastern U.S. forest tree populations. New York Society of American Foresters Annual Meeting. Syracuse, NY, Jan. 22.
31. Wason J<sup>‡</sup>, Dovčiak, M. 2015. Elevational distributions of tree species: Climate, land management history, or soils? New York Society of American Foresters Annual Meeting. Syracuse, NY, Jan. 22.
30. Quant JM<sup>‡</sup>, Nowak CA, Dovčiak M. 2014. Human-based spread of invasive plants along powerline rights-of-way in New York. Connecticut Invasive Plant Working Group Symposium, University of Connecticut, Storrs, Oct. 7.
29. Wason JW <sup>‡</sup>, Dovčiak M, Beier CM, Battles JJ. 2014. Responses of tree populations to recent climatic trends in northeastern mountain forests: Thinking beyond range margins. Ecological Society of America, Annual Meeting, Sacramento, CA. Aug. 10-15.
28. Quant JM<sup>‡</sup>, Dovčiak M, Lawrence GB, Leopold DJ. 2014. Understory composition along the Appalachian Trail as influenced by broad environmental gradients: The AT Mega-Transect Project. New York Society of American Foresters Annual Meeting, Syracuse, NY, January 23.
27. Álvarez-Yépez JC <sup>‡</sup>, Cueva A, Dovčiak M, Teece M, Yépez E. 2013. Functional strategies of a rare ancient cycad along an environmental gradient of a tropical dry forest. Ecological Society of America, Annual Meeting, Twin Cities, MN. Aug. 4-9.
26. Gutiérrez Lagoueyte ME<sup>‡</sup>, Ruiz Carrascal D, Dovčiak M, del Pilar Arroyave Maya M, Zapata Jaramillo PA, Arcila Marín N, Gutiérrez Cardona C. 2013. Vulnerability of high mountain ecosystems to changes in climate in Los Nevados National Park, Columbia (in Spanish). 7<sup>th</sup> Colombian Congress of Botany, August 6-11, Ibagué, Colombia.
25. Busman A<sup>‡</sup>, Wason J<sup>\*</sup>, and Dovčiak M. 2013. Recent convergence of red spruce (*Picea rubens*) growth rates at high and low elevations on Whiteface Mtn., New York. Adirondack Research Consortium 20<sup>th</sup> Annual Conference, May 15-16, 2013, Lake Placid, NY.
24. Halpern CB<sup>‡</sup>, Halaj J, Evans S, Dovčiak M. 2012. Level and pattern of overstory retention interact to shape long-term responses of understories to timber harvest. Ecological Society of America, Annual Meeting, Portland, OR. Aug. 5-10.
23. Frelich LE<sup>‡</sup>, Peterson R, Dovčiak M, Reich P, Vucetich J, Eisenhauer N. 2012. Trophic cascades and the temperate-boreal transition in a warming climate. Impact of Ungulates and Other Mammalian Herbivores on Forest Ecosystems—A workshop of Forest Ungulates Research Network (FURN) and the SNS/EFINORD networks Natural Disturbance and PRIFOR, in Järvselja Forest Station, Estonian University of Life Sciences, Estonia, Oct. 8-12.
22. Álvarez-Yépez JC<sup>‡</sup>, Búrquez A, Dovčiak M. 2012. Coexistence mediated by ontogenetic shifts in plant-plant interactions: Insights from a rare cycad within angiosperm communities. Ecological Society of America, Annual Meeting, Portland, OR. Aug. 5-10.
21. Holdrege M <sup>‡</sup>, Beier C, Dovčiak M. 2012. Overstory and understory tree communities and light environment in an old growth. Northeast Natural History Conference, Annual Meeting, Syracuse.
20. Quant JM <sup>‡</sup>, Dovčiak M, Leopold DJ, Lawrence GB. 2012. Forest communities along acid deposition, soil, and climate gradients of the Appalachian Trail: The AT Mega-Transect Project.

- Northeast Natural History Conference, Annual Meeting, Syracuse, NY, April 16, 2012.
19. Álvarez-Yépez JC <sup>\*,‡</sup>, Dovčiak M. 2011. The role of facilitation in the persistence of cycads. Student Conference on Conservation Science-New York. American Museum of Natural History, NY.
  18. Davis L <sup>\*,‡</sup>, Dovčiak M. 2011. Identifying shifts in the northern hardwood-boreal ecotone at Whiteface Mountain. Society of American Foresters, NYS Chapter Annual Meeting, Syracuse, NY.
  17. Gutiérrez Lagoueyte ME <sup>\*,‡</sup>, Dovčiak M, Ruíz D. 2011. Climate change effects on páramo vegetation in Colombian Andes. Student Conference on Conservation Science-New York. American Museum of Natural History, NY.
  16. Quant JM <sup>\*,‡</sup>, Dovčiak M, Leopold DJ, Lawrence GB. 2011. Forest communities along acid deposition, soil, and climate gradients of the Appalachian Trail: The AT Mega-Transect Project. North American Forest Ecology Workshop, annual meeting, Roanoke, VA, June 21, 2011.
  15. Falco G <sup>†,‡</sup>, Dovčiak M. 2011. Environmental and vegetation changes across the mixed hardwood spruce-fir montane ecotone on Goodnow Mountain, Adirondacks, NY. National Conference on Undergraduate Research, Ithaca, NY.
  14. Dovčiak M<sup>‡</sup>, Halpern CB, Evans SA, Heithecker TD. 2010. Forest management changes microclimate and bryophyte diversity in the Cascade Mts. of western Washington. Global Change and the World's Mountains, Perth, UK.
  13. Álvarez-Yépez JC <sup>\*,‡</sup>, Dovčiak M, Búrquez A. 2010. Persistence of a rare ancient cycad: effects of environment and demography. Ecological Society of America, Annual Meeting, Pittsburgh, PA.
  12. Brown J <sup>†,‡</sup>, Dovčiak M. 2010. Plant community and microclimate changes across forest edges. Ecological Society of America, Annual Meeting, Pittsburgh, PA.
  11. Beier CM<sup>‡</sup>, Woods A, Gibbs JP, Dovčiak M. 2010. Variability in land snail, salamander and plant communities along gradients in soil calcium and acidic deposition in the Adirondack Mountains, New York. Ecological Society of America, Annual Meeting, Pittsburgh, PA.
  10. Dovčiak M<sup>‡</sup>, Halpern CB, Evans SA, Heithecker TD. 2010. Forest management changes microclimate and bryophyte communities in the Cascade Mts. of western Washington. Ecological Society of America, Annual Meeting, Pittsburgh, PA.
  9. Brown J <sup>†,‡</sup>, Dovčiak M. 2009. Plant community and microclimate changes across forest edges. Adirondack Research Consortium, annual meeting, Lake Placid, NY.
  8. Giencke L<sup>\*,‡</sup>, Dovčiak M. 2009. Spatial dynamics and effects of beech bark disease on an Adirondack forest. Odum Conference on Biological Invasions, Rensselaerville, NY.
  7. Giencke L<sup>\*,‡</sup>, Dovčiak M. 2009. Spatial dynamics and effects of beech bark disease on an Adirondack forest. Adirondack Research Consortium, annual meeting, Lake Placid, NY.
  6. Halpern CB<sup>‡</sup>, Dovčiak M, Nelson CR, Evans SA. 2008. Responses of vascular and non-vascular plants to structural-retention harvests in the Pacific Northwest. Ecological Society of America, Annual Meeting, Milwaukee, WI.
  5. Dovčiak M<sup>‡</sup>, Halpern CB. 2006. Diversity versus population variability in forest herbs during 40 years of forest succession. Ecological Society of America, Annual Meeting, Memphis, TN.
  4. Evans SA<sup>‡</sup>, Nelson CR, Saracco JF, Dovčiak M, Halpern CB. 2006. Persistence of forest-floor bryophytes in a structural-retention experiment: effects of level and pattern of overstory retention. Botanical Society of America, annual meeting, Chico, CA.
  3. Dovčiak M<sup>‡</sup>, Carlson D <sup>\*</sup>, Janečka P <sup>\*</sup>, Paule L. 2003. Population dynamics of the endangered common yew (*Taxus baccata* L.) and its management implications for biosphere reserves of the western Carpathians. Yew Symposium, Austrian Fed. Office & Research Center for Forests, Wien.
  2. Dovčiak M<sup>‡</sup>, Frelich LE, Reich PB. 1999. Spatial pattern of white pine seedlings in relation to distribution of seed trees and environmental conditions. Ecological Society of America, Annual

Meeting, Spokane, WA.

1. Dovciak M, Frelich LE, Reich PB. 1999. Spatial pattern analysis of white pine cohorts in aspen-dominated southern boreal forests. International Association for Landscape Ecology, World Congress, Snowmass Village, CO.

## PROFESSIONAL SERVICE

### Service to Professional Societies

- Vice Chair, Vegetation Section of the Ecological Society of America (since August 2019).

### Editorial Boards & Expert Panels

- *Journal of Vegetation Science*: Editorial Board Member (since 2014).
- *Applied Vegetation Science*: Editorial Board Member (since 2014).
- USDA Forest Service: Member of the Review Panel on forest tree species of the northeastern U.S. for a General Technical Report on critical loads of nitrogen for northeastern tree species (2015).
- New York Climate Change Science Clearinghouse (NYCCSC)-Sector Expert: Agriculture & Forestry

### Invitations for Editorial Positions (declined)

- Guest Editor for the open access journal *Diversity* (Impact Factor= 2.047) for a Special Issue on 'Patterns and processes in plant invasions and migrations' (2019)
- Guest Editor for the open access journal *Forests* (Impact Factor= 1.956) for a Special Issue on 'Forest Regeneration and Plant Distributions in Changing Environments' (2018).
- Editor-in-Chief for Springer journal *Current Forestry Reports* (Impact Factor= 3.548) (2013).

### Reviewer for Refereed Journals (> 95 manuscripts in total)

#### Ecology and Conservation Biology

- Biological Conservation
- Biological Invasions
- Diversity and Distributions
- Ecological Applications
- Ecological Monographs
- Ecology
- Ecology Letters
- Ecosphere
- Functional Ecology
- Global Change Biology
- Journal of Applied Ecology
- Journal of Ecology
- Oikos
- PLoS ONE

#### Applied Vegetation and Forest Sciences

- Annals of Forest Science
- Applied Vegetation Science
- Canadian Journal of Forest Research
- Forest Ecology and Management
- Forest Science
- Journal of Forest Research
- Journal of Forestry
- Journal of Vegetation Science
- Landscape Ecology
- New Forests
- Plant Ecology
- Restoration Ecology

### Reviewer for Funding Agencies (> 50 research proposals in total)

- NSF Division of Environmental Biology—Population & Community Ecology, Arlington, VA (2015).
- NSERC—Discovery Grants Program, Ottawa, Canada (2014)
- NSF Earth Sciences—CAREER (Hydrologic Sciences), Arlington, Virginia (2014).
- NSF Earth Sciences—EAR (Hydrologic Sciences), Arlington, Virginia (2013).
- National Geographic Society—Young Explorers Grants (2013)
- Northeastern States Research Cooperative, Biodiversity & Protected Area Management (2012).
- German Research Foundation (DFG), Bonn, Germany (2011).



- USDA McIntire-Stennis Cooperative Forestry Program, SUNY ESF, Syracuse, New York (2010-11).
- USDA Forest Service, PSW Research Station and Tahoe Science Consortium, California (2008).
- Royal Society of New Zealand, Marsden Fund–Ecology, Evolution & Behaviour Panel (2007).
- European Union SEE–ERA.NET project to strengthen European Research Area, Vienna (2007).
- Grant Agency of the Academy of Sciences of the Czech Republic, Prague, Czech Republic (2006).
- European Union INTAS program for east–west cooperation, Brussels, Belgium (2005-2006).

### **Invited Panelist, Conference Organizer, or Judge for Student Awards**

- Invited Panelist: Office of International Education, SUNY-ESF: “Planning Faculty-lead International Programs” (2018).
- Invited Panelist: SUNY-ESF, Syracuse: “Applying to Graduate School-Perspectives from Potential Graduate Faculty Advisors” (2018).
- Invited Pop-Up Speaker: Mountain Research Initiative Mixer, AGU Annual Meeting, San Francisco, CA. “Monitoring Changing Forests in Mountain Regions” (2015).
- Invited Panelist: Cornell University Agriculture and Food Systems In-Service, Ithaca, NY. Climate Change and Invasive Species (2015).
- Invited Panelist: Canadian Botanical Association, Annual Meeting, Kamloops, British Columbia. Bryophyte diversity and ecosystem function within managed forests (2013).
- Invited Panelist: Northeast Deer Technical Committee, Deer-Forest Impacts Sub-Committee, Annual Northeast Fish and Wildlife Conference, Saratoga Springs (2013).
- Co-organizer: SUNY ESF Spotlight on Research Student Conference, Syracuse (2010)
- Judge for student awards: SUNY ESF Spotlight on Research Student Conference, Syracuse (2010)
- Judge for Buell–Braun student awards: Ecological Society of America meeting, Memphis (2006)
- Referee: Conference proceedings on invasive plants in the PNW, University of Washington (2006)
- Judge for student awards: Society for Ecological Restoration meeting, Seattle, WA (2005)
- Co-organizer: European Union Conference on Mountain Regions, Banská Bystrica, Slovakia (1993).

### **Memberships in Professional Societies**

- Botanical Society of America
- Ecological Society of America
- International Association for Vegetation Science
- Society of American Foresters

### **University Committees and Service**

#### College and University Committees and Service

- Departmental representative in SUNY ESF Student Life Committee (since Fall 2019)
- Global Change on the Hill, Syracuse University and SUNY ESF faculty initiative seeking synergies in global change ecology research on the two campuses (since 2017)
- College Committee on Research, SUNY ESF, member (2009–2011)
- Member, Graduate Program in Environmental Science–Ecosystem Restoration & Environmental Monitoring and Modeling Program Areas, SUNY ESF, member (2012-present)
- Council for Geospatial Modeling and Analysis, SUNY ESF, member (2009–present)
- Beech Working Group, SUNY–ESF, founding member (since 2009)
- Ad hoc reviewer for the Fulbright Program at SUNY ESF (2014)
- Strategic Analysis and Dean Electoral Committees, Technical University Zvolen, member (2004)

Departmental Committees and Service

- Graduate Program Advisory Committee, member (2007–present)
- Chair, Robert Burgess Graduate Scholarship in Ecology, SUNY ESF (2008-2016)
- Faculty representative for the Conservation Biology Major, Spring Open House for accepted and prospective students (April: 2017–2019).
- Academic mentor to >130 undergraduate students across various programs at SUNY ESF, including NSF Undergraduate Mentoring in Environmental Biology, NSF Environmental Scholars Program, Undergraduate Honors Program, The Collegiate Science and Technology Entry Program (CSTEP), and Environmental Biology and Conservation Biology majors (since 2007).
- Departmental representative and staff at the Tropical Ecology information desk, Annual SUNY ESF Study Abroad Fair (since 2016)
- Contributing to the development of greenhouse and herbarium collections and microscopy laboratory in support of the vascular plant classes (since 2007).
- Faculty host for departmental (and college) seminar guest speakers (since 2007)

Promotion & Tenure Related Service (Departmental, College/University, Profession)

- Tenure & Promotion Committee, Department of Environmental Biology, SUNY ESF—member (since August 2019)
- External reviewer for reappointment of an extension faculty member, Cornell University (2020)
- Teaching evaluations for SUNY ESF College Promotion & Tenure Committee (2011)

Search Committees

- Assistant Professor in Forest Ecosystem Management, Department of Forest and Natural Resources Management, SUNY ESF (2019)
- Instructional Support Specialist in General Biology, Plant Science, and Microbiology (2017)
- Assistant Professor in Invertebrate Conservation Biology (2011-2012)
- Climate Change Scientist-Empire State Innovation Search (subcommittee; 2010)
- Greenhouse Manager and Instructional Support Specialist (2008)

**SELECTED PUBLIC OUTREACH AND EXTENSION****Interactions with University Outreach Groups & State or Federal Agencies**

- State land management agencies in northeastern US. Developing agency support and science-based guidelines for forest management/conservation under changing climate (2011-present).
- New York State Department of Environmental Conservation and Cornell Cooperative Extension, Ithaca, NY. Contributing the development of a public outreach component of monitoring and managing deer impacts on forests of New York State (2013-present).
- Appalachian Trail MEGA-Transect Consortium: US Geological Survey, National Park Service, US Forest Service, Cary Institute of Ecosystem Studies, SUNY ESF, and Environmental Chemistry Inc. Developing environmental monitoring and modeling products to support science-based forest management and conservation along the Appalachian Trail from Georgia to Maine (2010-2013).
- New York Power Authority. Co-investigator. Developed guidelines to inform best management practices for cleaning techniques for controlling human transport of invasive exotic plants on power line rights-of-way across New York by vegetation management crews (2012-present).
- New York State Department of Environm. Conservation. Advisor. The use of prescribed fire as a vegetation and habitat management tool in conserving an endangered rattlesnake (2009-2011).

### Interactions with Local Governments or Private Groups

- Central Pine Barrens Joint Planning and Policy Commission, Westhampton Beach, New York. Monitoring forest health and stand dynamics of the Central Pine Barrens' pine-oak ecosystem to providing eco-services and recreation to Long Island and New York City (ongoing since 2018).
- Seattle Public Utilities, Seattle, Washington. Design of an ecological restoration experiment in the Cedar River Municipal Watershed to improve forest ecosystem health and biodiversity of second-growth forests providing drinking water and recreation opportunities for the City (2004-2007).
- Local land management entities in Minnesota: St. Louis County Land Department, Bear Head Lake State Park, and Superior National Forest-Kawishiwi Ranger District. Developed local support for field research, identified local information needs, and communicated science-based findings on white pine regeneration ecology to support forest management and conservation (1996-2000).

### Interactions with NGOs & the Public

- Various local organizations in Syracuse: Talks on forest tree biology and invasive or rare plants (2008-present; Syracuse Botanical Club, Tecumseh Elementary School).
- Focus the Nation: Global Warming Solutions for America. A public "Teach-in" session on Climate Change at Syracuse University and SUNY ESF (2008, Co-organizer and presenter).
- The Bridge: Classroom to Community Connection, Syracuse, New York. Round-table dialogue with the local community (urban NGOs) to improve academic-civic linkages in Syracuse (2009).

### International Outreach & Extension

- Archibold Tropical Research & Education Center, Dominica, West Indies. iNaturalist web project for the Flora of Dominica: <https://www.inaturalist.org/projects/plants-in-dominica-west-indies>
- Sierra de Alamos-Rio Cuchujaqui Biosphere Reserve, Mexico. Ecological monitoring and conservation of an endangered forest cycad, *Dioon sonorense* (2008-2014, advisor).
- Los Nevados National Park and Antioquia School of Engineering, Colombia. Predicting potential effects of climate change on vegetation in the Colombian Andes (2010-2013, advisor).
- National and local land management/nature conservation agencies, Slovakia: Building agency support and communicating research to support sustainable forest management (2001-2004).

### Selected Press Coverage

- *Information to Improve Air Quality and Environmental Health*. USGS Science Highlights, Northeast Region, July 2019.
- *EFB Faculty, Students Spend Spring Break in Ecuador: Teaching and research projects are front and center*. SUNY ESF News, Syracuse, March 19, 2019.
- *Beech booming as climate changes, and that's bad for forests*. The Associated Press. Feb. 25, 2018. A quote in the story picked up by New York Times, LA Times, Washington Post, and many other national and regional news outlets.
- *5 CNY college campuses among safest in Upstate NY*. The Post-Standard, Syracuse.com. Oct. 18, 2018. Article illustrated by a photograph of our flowering plants class in the field.
- *Growing deer population taking a toll on forests*, by T.J. Pignataro, The Buffalo News, May 25, 2015.
- *Onondaga Lake Bioblitz: More Than 400 Species in 24 Hours*. Office of Communications, SUNY ESF, Syracuse, September 18, 2014.
- *When will we finally get relief from CNY's terrible allergy season?* by Glenn Coin, Syracuse.com-The Post-Standard, Syracuse Media Group, June 10, 2014.
- *Forest regrowth after timber harvest competes with understory plants*. Adirondack Ecological Center, Facebook, March 17, 2014.
- *Monitoring our Changing Forests*. Field Notes from the Roosevelt Wild Life Station. Fall 2013.

- *ASRC Whiteface Mountain Field Station*, by Paul W. Casson, Richard Brandt, and James Schwab, *Adirondack Journal of Environmental Studies*, Vol. 18, 2012.
- *Adirondack lakes in north eastern US lose ice cover as climate warms*. *Science Daily*, May 7, 2012.
- *New York lake's freezing, thawing shows warming trend*, by Mary Esch. *Associated Press*. May 7, 2012.
- *Effects of climate change on forests*, by Shelby Gonzales. *Northern Wilds, the Outdoor Newspaper of the North*. Northern Wilds Media, Inc. 2005 – 2011.
- *White pine: Vision of the future*, by Mary Hoff. *Roots Newsletter*. Minnesota Department of Natural Resources, Division of Forestry. March 2000.
- *Switching a mindset*, *Spectrum Newsletter*, University of Minnesota 6(3), Fall 2000.
- *Environmental Training Project classes cover much ground-textbook writing*, *ETP News*, Vol. 2(2), 1995.