

# DANIEL S. W. KATZ

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## Education

2009 – 2015 Ph.D., University of Michigan, Ann Arbor, MI, Natural Resources & Environment  
Dissertation: The effect of biotic interactions on range expansion of plant species

2003 – 2007 B.A., Bard College, Annandale, NY, Environmental Studies

## Professional appointments

2023 - current **Assistant Professor**  
Cornell University, School of Integrative Plant Science, Soil & Crop Sciences Section

2022 - 2023 **Senior Research Associate**  
Cornell University, School of Integrative Plant Science

2019 - 2021 **Postdoctoral Fellow**  
University of Texas at Austin, Dell Medical School, Department of Population Health  
Research project: Allergenic pollen exposures and epidemiology in Texas  
Advisors: Elizabeth Matsui and Shalene Jha

2016 - 2019 **National Institutes of Health NRSA F32 Postdoctoral Fellow**  
Michigan Institute of Clinical & Health Research Postdoctoral Fellow  
University of Michigan – Ann Arbor, School of Public Health, Environmental Health Sciences  
Research project: Allergenic pollen production, dispersion, and exposures in Detroit  
Advisor: Stuart Batterman

## Publications (\*coauthor is an undergraduate mentee)

- 22 Y. Song, **D.S.W. Katz**, Z. Zhu, C. Beaulieu, K. Zhu. 2025. Predicting reproductive phenology of wind-pollinated trees via PlanetScope time series. *Science of Remote Sensing*, 100205.
- 21 **Katz, D.S.W.**, C.M Ziegler, D. Bhavnani, S. Balcer-Whaley, E.C. Matsui. 2024. Pollen and viruses contribute to spatio-temporal variation in asthma-related emergency department visits. *Environmental Research*, 257: 119346.
- 20 **Katz, D.S.W.**, G. Robinson, A. Ellis, D. Nowak. 2024. The effects of tree planting on allergenic pollen production in New York City. *Urban Forestry & Urban Greening*, 92: 128208.
- 19 Crimmins, T.M., E. Vogt, C.L. Brown, D. Dalan, A. Manangan, G. Robinson, Y. Song, K. Zhu, **D.S.W. Katz**. 2023. Volunteer-contributed observations of flowering often correlate with airborne pollen concentrations. *International Journal of Biometeorology*, 67: 1363-1372.
- 18 **Katz, D.S.W.**, A. Baptist, S.A. Batterman. 2023. Modeling airborne pollen concentrations at an urban scale with pollen release from individual trees. *Aerobiologia*, 39: 181-193.
- 17 **Katz, D.S.W.**, E. Vogt, A. Manangan, C. Brown, D. Dalan, K. Zhu, Y. Song, T. Crimmins. 2023. Observations from the USA National Phenology Network can be leveraged to model airborne pollen. *Aerobiologia* 39:169-174.
- 16 Bhavnani, D., M. Wilkinson, R.A. Zárate, S. Balcer-Whaley, **D.S.W. Katz**, P.J. Rathouz, E.C. Matsui. 2023. Do upper respiratory viruses contribute to racial and ethnic disparities in emergency department visits for asthma? *Journal of Allergy and Clinical Immunology* 151.3: 778-782.
- 15 Zapata-Marin, S., A.M. Schmidt, S. Weichenthal, **D.S.W. Katz**, T. Takaro, J. Brook, and E. Lavigne. 2022. Within city spatiotemporal variation of pollen concentration in the city of Toronto, Canada. *Environmental Research* 206:112566.

- 14 **Katz, D.S.W.**, S.J. Brines and S.A. Batterman. 2020. Improved classification of urban trees using a widespread multi-temporal aerial image dataset. *Remote Sensing* 12.15:2475.
- 13 **Katz, D.S.W.** and S.A. Batterman. 2020. Urban-scale variation in pollen concentrations: A single station is insufficient to characterize daily exposure. *Aerobiologia* 36: 417-431.
- 12 **Katz, D.S.W.**, J. Morris, and S.A. Batterman. 2020. Pollen production for 13 urban North American tree species: allometric equations for tree trunk diameter and crown area. *Aerobiologia* 36: 401-415.
- 11 **Katz, D.S.W.** and S. Batterman. 2019. Allergenic pollen production across a large city for common ragweed (*Ambrosia artemisiifolia*), *Landscape and Urban Planning* 190: 103615.
- 10 **Katz, D.S.W.**, A. Dzul, A. Kendel, and S. Batterman. 2019. Effect of intra-urban temperature variation on tree flowering phenology, airborne pollen, and measurement error in epidemiological studies of allergenic pollen. *Science of the Total Environment* 653: 1213-1222.
- 9 **Katz, D.S.W.** and I. Ibáñez. 2017. Differences in biotic interactions across range edges have only minor effects on plant performance. *Journal of Ecology* 105: 321-331.
- 8 I. Ibáñez, **D.S.W. Katz**, and B. Lee. 2017. The contrasting effects of short-term climate change on the early recruitment of tree species. *Oecologia* 184.3: 701-713.
- 7 **Katz, D.S.W.** and I. Ibáñez. 2016. Foliar damage beyond species distributions is partly explained by distance dependent interactions with natural enemies. *Ecology* 97.9: 2331-2341.
- 6 **Katz, D.S.W.** 2016. The effects of invertebrate herbivores on plant population growth: a meta-regression analysis. *Oecologia* 182.1:43-53.
- 5 **Katz, D.S.W.** and I. Ibáñez. 2016. The effect of biotic interactions on range expansion of three invasive plant species. *Biological Invasions* 18:3351-3363.
- 4 **Katz, D.S.W.** and T.S. Carey\*. 2014. Heterogeneity in ragweed pollen exposure is determined by local and neighborhood plant composition. *Science of the Total Environment* 485: 435-440.
- 3 **Katz, D.S.W.**, B. Connor-Barrie, and T.S. Carey\*. 2014. Urban ragweed populations in vacant lots: An ecological perspective on management. *Urban Forestry and Urban Greening* 13.4: 756-760.
- 2 I. Ibáñez, **D.S.W. Katz**, B. Connor-Barrie, S. Wolf, D. Peltier. 2014. Assessing the integrated effects of landscape fragmentation on plants and plant communities: the challenge of multiprocess – multiresponse dynamics. *Journal of Ecology* 102: 882-895.
- 1 **Katz, D.S.W.**, G.M. Lovett, C.M. O'Reilly, and C.D. Canham. 2010. Legacies of land use diminish over 22 years in a forest in southeastern New York. *Journal of the Torrey Botanical Society* 137.2: 236-251.

## Grants, fellowships, awards, and competitive programs

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2024	McIntire-Stennis, PI Xiangtao Xu; Co-I Katz, Creating the Cornell Digital Forestry Initiative (CoDiFI): Innovative instrumentation and training to track changes in forest dynamics and carbon sequestration at Arnot Forest. Total project: \$90,000.	\$8,000
2023-2025	McIntire-Stennis, PI, sponsored research on tree identification with novel phenological approaches	\$60,000
2023-2024	Bayer Health, PI, sponsored research on the effects of tree planting on pollen production in NYC	\$64,000
2023-2024	Environmental Defense Fund/Cornell Atkinson Center, co-PI, sponsored research on the cooling effects of trees in NYC	\$100,000
2023-2025	Cornell Atkinson Center, co-PI, sponsored research on the cooling effects of trees in NYC	\$175,000
2021	Justice, Equity, Diversity and Inclusion award (shared with 11 co-recipients of the BioBlitz Planning Committee) – UM Ecology and Evolutionary Biology Dept.	

2020-2021	Researcher Grant – Texas Ecological Laboratory	\$11,970
2016-2019	NRSA F32 Postdoctoral Research Fellow – National Institutes of Health	\$181,400
2016-2018	PTSP Fellow – Michigan Institute for Clinical & Health Research	\$60,000
2017	Planet Ambassador: Satellite Imagery Data Access Award – Planet Labs	
2017	Library Data Grant: Remote Sensing Data – University of Michigan Clark Library	
2013-2015	Doctoral Dissertation Improvement Grant – National Science Foundation	\$20,200
2015	Rackham Dissertation Grant – University of Michigan Graduate School	\$15,800
2015	C. Pack Foundation Award – UM School of Natural Resources and Environment	\$1,000
2011-2014	Graduate Research Fellow – National Science Foundation	\$134,000
2010-2014	Rackham Travel Grants – University of Michigan Graduate School	\$3,500
2013	Earnest Woodman Award – UM School of Natural Resources and Environment	\$500
2012	E.S. George Reserve Scholarship Award – UM E.S. George Reserve	\$6,150
2012	Howard M. Wight Award – UM School of Natural Resources and Environment	\$500
2012	William D. Drake Prize – Matthaei Botanical Gardens and Nichols Arboretum	\$1,000
2012	Winifred Chase Award – Matthaei Botanical Gardens and Nichols Arboretum	\$2,000
2011	Samuel A. Graham Award – UM School of Natural Resources and Environment	\$1,000
2011	Donald M. Matthews Award – UM School of Natural Resources and Environment	\$500
2010	Lund Ecology Award – UM School of Natural Resources and Environment	\$500
2006-2007	Trustee Leader Scholar – Bard College	
2005, 2007	Alice Doyle Award – Bard College	\$500
2006	NSF REU participant – Cary Institute of Ecosystem Studies	
2005	NSF REU participant – Harvard Forest	

## Presentations: Invited research seminars

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4/1/25, 50 minutes. “Allergenic pollen: A story of plants, people, and public health” Invited speaker: Falconer Natural History Lecture Series, Atmospheric Sciences Research Center, University at Albany – State University of New York.

10/16/24, 50 minutes. “Plants, pollen, and people: Ecological answers to public health questions” Invited speaker: Ecology and Evolution Colloquium Series, Department of Ecology and Evolution, Stony Brook University.

9/4/24, 8 minutes. “An overview of the Katz lab” Invited lightning talk: Plant Biology Section Seminar Series, School of Integrative Plant Science.

9/4/24, 50 minutes. “Harnessing ecology and remote sensing to model airborne pollen concentrations” Invited speaker: Earth and Atmospheric Science Seminar Series, Cornell University.

3/29/24, 50 minutes. “Plants, pollen, and people: Harnessing ecology and remote sensing to model airborne pollen concentrations” Invited speaker: Ecosystem Science and Management Seminar Series, School for Environment and Sustainability, University of Michigan.

10/26/20, 20 minutes. “Modeling allergenic pollen at the municipal scale with a process-based approach.” Invited presentation: National Atmospheric Deposition Program, Aeroallergen Monitoring Science Committee.

9/28/20, 25 minutes. “Allergenic pollen: How moving from monitoring networks to process-based models could create new epidemiological and public health opportunities.” Invited presentation: Council of State and Territorial Epidemiologists, Climate, Health, and Equity Subcommittee.

7/22/20, 50 minutes. “Plants, people, and pollen: scaling and predicting ecological processes to inform management.” Invited presentation: School of Integrative Plant Science, Cornell University.

4/23/19, 30 minutes. “Spatio-temporal heterogeneity in airborne pollen concentrations.” Invited remote presentation: Aeroallergen Team, Climate Change Working Group, Center for Disease Control.

3/14/19, 30 minutes. “Allergenic pollen in Detroit: From demolition to exposure.” Invited presentation: Detroit School Series, University of Michigan.

3/12/19, 20 minutes. “Love is in the air: Plant sex, allergenic pollen, and how to avoid it.” Invited presentation to the public: Biology on Tap, Corner Brewery, Ypsilanti, Michigan.

11/16/18, 15 minutes. “An interdisciplinary approach to addressing pollen allergies.” Invited presentation: Giving Thanks for Research Event, Michigan Institute for Clinical & Health Research, University of Michigan.

## Presentations: Professional meetings (\*coauthor is a mentee)

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Zonneville, H.\*, K. Sobieraj\*, **D.S.W. Katz**. 2024. “Leveraging drone and satellite observations to quantify pollen cone production for individual *Juniperus ashei* trees across large spatial scales.” Poster presentation. *Ecological Society of America Annual Meeting*, Longbeach, CA.

**Katz, D.S.W.**, S. Jha, E. Matsui. 2024. “Pollen release models for public health applications: Comparing *Juniperus ashei* phenology with airborne pollen.” Oral presentation. *Ecological Society of America Annual Meeting*, Longbeach, CA.

**Katz, D.S.W.**, S. Huang, G.S. Robinson, K.A. Edwards. 2024. “Quantifying pollen forecast accuracy: An assessment of private sector prediction in New York.” Poster presentation. *American Academy of Allergy, Asthma, & Immunology Annual Meeting*, Washington, D.C.

**Katz, D.S.W.**, C. Zigler, D. Bhavnani, and E. Matsui. 2023. “Asthma-related emergency department visits in Texas: associations with viruses and allergenic pollen.” Oral presentation. *American Academy of Allergy, Asthma, & Immunology Annual Meeting*, San Antonio, TX.

Huang, S.,\* K.A. Edwards, and **D.S.W. Katz**. 2022. “Evaluating the accuracy of commercial pollen forecasts” Poster presentation. *Health Data Science Symposium*, Cambridge, MA.

**Katz, D.S.W.**, S. Jha, and E. Matsui. 2022. “Modeling pollen release with observational and environmental data for *Juniperus ashei*.” Oral presentation. *Ecological Society of America*, Montreal, Canada.

Crimmins, T.M., E. Vogt, A. Manangan, F. Lo, **D.S.W. Katz**, D. Dalan, C. Brown, and G.S. Robinson. 2022. “Can forecasts of the start of the spring season improve allergy and asthma symptom management?.” Poster presentation. *American Geophysical Union*, remote presentation.

Vogt, E., T. Crimmins, D. Dalan, **D. Katz**, A. Manangan, and C. Brown. 2022. “How well do volunteer-contributed observations of flowering characterize the springtime airborne pollen season?.” Poster presentation. *American Academy of Asthma, Allergy, and Immunology* annual conference.

Crimmins, T.M., E. Vogt, A. Manangan, F. Lo, **D.S.W. Katz**, D. Dalan, C. Brown, and G.S. Robinson. 2021. “Can forecasts of the start of the spring season improve allergy and asthma symptom management” Poster presentation. *American Geophysical Union*, remote presentation.

**Katz, D.S.W.**, C. Zigler, and E. Matsui. 2020. “Asthma-related emergency department visits in Texas: Associations with allergenic pollen and other seasonal triggers.” Poster presentation. *International Society of Environmental Epidemiology*, virtual conference.

**Katz, D.S.W.** and S. Batterman. 2019. “Pollen production across a city: Scaling from anthers to neighborhoods with allometric equations and remote sensing.” Oral presentation. *Ecological Society of America*, Louisville, KY.

**Katz, D.S.W.** and S. Batterman. 2018. “Measurement error in epidemiological studies of allergenic pollen due to heterogeneity in flowering time.” Oral presentation. *International Society of Exposure Science and International Society of Environmental Epidemiology*, Ottawa, Canada.

**Katz, D.S.W.** and S. Batterman. 2018. “Creating a comprehensive municipal inventory of common ragweed (*Ambrosia artemisiifolia*) to predict allergenic pollen exposures.” Poster presentation. *Translational Science*, Washington, DC.

- V. Bankowski\* and **D.S.W. Katz**. 2018. “Allometric equations for predicting common ragweed pollen production. Oral presentation, *Michigan Academy of Science, Arts, and Letters*, Mount Pleasant, MI.
- Katz, D.S.W.** and S. Batterman. 2017. “Allergenic pollen in cities: Using remote sensing to determine source plant locations.” Oral presentation. *Ecological Society of America*, Portland, OR.
- V. Bankowski\* and **D.S.W. Katz**. 2017. “Spatial variation in *Alternaria* spore concentration in Detroit.” Poster presentation. *Undergraduate Research Opportunity Program symposium*, Ann Arbor, MI. This poster was awarded the Blue Ribbon Prize.
- Katz, D.S.W.** and I. Ibáñez. 2015. “Will biotic interactions determine temperate tree range expansion success?” Oral presentation: Organized oral symposium. *Ecological Society of America*, Baltimore, MD.
- T. Carey\* and **Katz, D.S.W.** 2014. “Allergies on the rise: Spatial correlations between management, plant populations and airborne pollen concentrations for ragweed” Oral presentation. *Ecological Society of America*, Sacramento, CA.
- Katz, D.S.W.** and I. Ibáñez. 2014. “You can run but you can’t hide: biotic interactions and range expansion” Oral presentation. *Ecological Society of America*, Sacramento, CA.
- Katz, D.S.W.** 2014. “Biotic interactions and range expansion dynamics” Oral presentation. *Michigan Academy of Science Arts and Letters*, Oakland, MI.
- Katz, D.S.W.** and I. Ibáñez. 2013. “The impact of biotic interactions on seedling recruitment during tree range expansion” Oral presentation: Organized oral symposium. *Ecological Society of America*, Minneapolis, MN.
- Katz, D.S.W.** 2013. “Can agricultural biodiversity buffer against climate variability?” Oral presentation. *Michigan Academy of Science Arts and Letters*, Holland, MI.
- Katz, D.S.W.** and I. Ibáñez. 2012. “Range expansion of plants in response to climate change” Poster presentation. *Ecological Society of America*, Portland, OR.
- Ennis, K., **Katz, D.S.W.**, T. Ong, L. Cline, Y.J. Su, B. Li, D. Gonthier, I. Perfecto, and B. Cardinale. 2012. “Crop diversity and yield stability: Do polycultures buffer against climate variability?” Oral presentation. *Ecological Society of America*, Portland, OR.
- Katz, D.S.W.** and T. Carey\*. 2012. “Allergenic pollen in the urban environment” Oral presentation. *Michigan Academy of Science Arts and Letters*, Alma, MI.
- Katz, D.S.W.** and I. Ibáñez. 2011. “Is the grass greener on the other side? Range expansion and enemy release” Oral presentation. *Ecological Society of America*, Austin, TX.
- Carey, T.\* and **Katz, D.S.W.** 2011. “Pollen and public health: A citizen science project” Poster presentation. *Ecological Society of America*, Austin, TX.
- Katz, D.S.W.** 2011. “The potential for tree range expansion in response to climate change” Oral presentation. *Michigan Academy of Science Arts and Letters*, Saginaw, MI.
- Katz, D.S.W.** and I. Ibáñez. 2010. “Frost and flowers: how will climate change effect spring frost damage in North America?” Oral presentation. *Ecological Society of America*, Pittsburgh, PA.

## Presentations: Outreach and extension

- 11/19/24, 30 minutes. “What you should know about urban trees” Presentation for CALS in-service day on research conducted at Arnot Forest, Ithaca, NY.
- 9/13/24, 10 minutes. “Tree identification in NYC” Presentation for advisory research board for the ‘Cool Trees’ project, virtual presentation.
- 4/13/23, 25 minutes. “What you should know about urban trees” Guest lecture for two science classes, Lehman Alternative Community School, Ithaca, NY.

12/17/21, 40 minutes. “Pollen trackers: what have we learned about cedar fever over the last two years?”  
Invited presentation: Big Country Chapter, Texas Master Naturalists.

11/3/21, 40 minutes. “Pollen trackers: what have we learned about cedar fever over the last two years?” Invited presentation: Highland Lakes Chapter, Texas Master Naturalists.

10/26/20, 40 minutes. “Pollen trackers: a citizen science project to forecast cedar fever.” Invited presentation: Hill Country Chapter, Texas Master Naturalists.

9/17/20, 40 minutes. “Pollen trackers: a citizen science project to forecast cedar fever.” Invited presentation: Lindheimer Chapter, Texas Master Naturalists.

9/14/20, 40 minutes. “Pollen trackers: a citizen science project to forecast cedar fever.” Invited presentation: Hill Country Chapter, Native Plant Society of Texas.

1/30/20, 40 minutes. “Tracking cedar fever in Texas: A citizen science project.” Invited presentation: El Camino Real Chapter, Texas Master Naturalists.

1/30/20, 50 minutes. “Tracking cedar fever in Texas: A citizen science project.” Invited presentation: Lindheimer Chapter, Texas Native Plant Society.

1/16/20, 30 minutes. “Tracking cedar fever in Texas: A citizen science project.” Invited presentation: Big Country Chapter, Texas Master Naturalists.

1/8/20, 50 minutes. “Tracking cedar fever in Texas: A citizen science project.” Invited presentation: Highland Lakes Chapter, Texas Master Naturalists.

9/8/15, 1 hour. “Climate change, fragmentation, and invasive species in Michigan.” Invited presentation: Steward’s Circle, Ann Arbor Natural Areas Presentation.

## Presentations: Guest lectures

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9/30/24, 50 minutes. “Plants in the built environment: an ecosystem services & disservices perspective” Guest lecture: Plant Science 1101, Cornell University.

9/25/23, 50 minutes. “Plants in the built environment: an ecosystem services & disservices perspective” Guest lecture: Plant Science 1101, Cornell University.

10/27/22, 100 minutes. “Spatial frameworks for quantifying plant ecosystem services and disservices” Guest lecture: Plant Science 6440, Cornell University.

9/29/22, 50 minutes. “Plants, pollen, and people: ecological answers to public health questions” Soil and Crop Sciences Seminar, Cornell University.

9/21/22, 50 minutes. “Plants in the built environment: an ecosystem services & disservices perspective” Guest lecture: Plant Science 1101, Cornell University.

9/13/22, 40 minutes. “Plants and public health: ecosystem services and disservices” Guest lecture: Landscape Architecture 6900, Cornell University.

9/10/22, 15 minutes. “Plants, people, and pollen: leveraging ecology to address a public health problem” Invited presentation: Organismal biology retreat, Cornell University.

2/7/16, 1 hour. “Human-environment interactions and allergenic pollen.” Guest lecture: Environment and Society (ENV 105), Washtenaw Community College.

12/2/15, 30 minutes. “Alternate stable states and novel ecosystems.” Guest lecture: Ecological Systems – Concepts and Applications (NRE 509), University of Michigan.

## Media appearances and publications for broader audiences

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- B. Yassme. Interview for short video: “Is ‘botanical sexism’ the reason why your allergies are worse this year?” *Stay Tuned, NBC News* 10/5/2024, <https://youtu.be/Cb99X0f8CNc?si=OhWJg1ASBMh-HqFH>
- G. Smith. To make allergy season less miserable, plant different trees. *Bloomberg News*. Available online at: <https://www.bloomberg.com/news/newsletters/2024-05-01/best-cure-for-spring-allergies-plant-different-trees-this-season?srnd=undefined>
- A. Valdez. 45-minute guest appearance on *The Happy Botanist* podcast. 1/15/24, “Happy Hour with Dr. Daniel Katz.” Full version available online: <https://www.thehappybotanistpodcast.com/episodes>
- K. Shine. Faculty Q&A and short video: “How 30,000 Detroit trees bloomed into a better way for researchers to predict airborne pollen.” *Michigan News* 7/6/2023, <https://news.umich.edu/how-30000-detroit-trees-bloomed-into-a-better-way-for-researchers-to-predict-airborne-pollen/>
- EnergyBDDO, star of [1 minute video about tree sex and allergenic pollen](#) for popular audiences as part of the DiversiTree Initiative by Claritin.
- R. Haupt. 45-minute guest appearance on *Science... sort of* podcast. 10/24/20, “Amber waves of sap and problems of pollen prairies.” Full version available online: <https://sciencesortof.com/show-notes/2020/10/330-amber-waves-of-sap-and-problems-of-pollen-prairies>
- B. Fitzsimmons. Participant in 11-minute television interview for Spectrum News. 3/11/20, “Pollen count goes automated with help from artificial intelligence.” Full version available online: <https://spectrumlocalnews.com/tx/austin/news/2020/03/11/pollen-counter-goes-automated-with-help-from-ai>
- W. Bishop. Participant in 24-minute interview on Facebook Live. 1/15/20, “Cedar trees: the good, the bad, and the sneezy.” *Texas Parks and Wildlife Department*, 40,000 views: <https://www.facebook.com/texasparksandwildlife/videos/619640848837872/>
- M. Maeckle. 1/2/20, “Something’s in the air: San Antonio enters peak cedar fever season.” *Rivard Report*, <https://therivardreport.com/something-in-the-air-san-antonio-enters-peak-cedar-fever-season/>
- L. Joel. 8/14/19. “As the forest moves back in, pollen is on the rise in Detroit.” *Undark Magazine*, <https://undark.org/article/detroit-public-health-problem-pollen> This article about my research was republished on several websites including: *Grist*, *the Daily Beast*, *Planetizen*, and *DailyMail*.
- V. Bankowski\* and **D.S.W. Katz**. 2018. Estimates of common ragweed pollen production for urban ragweed plants. *The University of Michigan Undergraduate Research Journal* 12: 27-32.
- D. Fair. 5/30/18, 10 minute interview: “Climate change expected to contribute to rough allergy season.” *Issues of the Environment*, WEMU 89.1. <https://www.wemu.org/post/issues-environment-climate-change-expected-contribute-rough-allergy-season>
- J. Erickson. 6/17/14. Press release: “Not mowing vacant lots could ease Detroit’s ragweed problem.” *Michigan News*: <https://record.umich.edu/articles/not-mowing-vacant-lots-could-ease-detroits-ragweed-problem/> This led to original articles on several websites, including: *Smithsonian Magazine: SmartNews*, *The Atlantic: City Lab*, and *Vice Magazine: Motherboard*.
- Zeilin, L. 4/1/13. “Beyond Blight.” *LSA Magazine*, spring issue, P. 45: <https://record.umich.edu/articles/not-mowing-vacant-lots-could-ease-detroits-ragweed-problem/>
- Katz, D.S.W.** and G.M. Lovett. 1/20/2008. Forest Change Offers Insight. *Poughkeepsie Journal*. E1.

## Mentoring

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Postdoctoral Researchers supervised:

- Dr. David Miller (Feb. 2024 – present); primary research topics include tree identification with PlanetScope images and participation in other projects with the ‘Cool Trees’ team.

#### Graduate students supervised:

- Hannah Zonneville (PhD student; fall 2023 – present); primary research topics include remote sensing of tree pollen production and reproductive phenology. H. Zonneville is an NSF GRFP fellow and has received several other funding awards including the SNIPS fellowship (\$9,000) and Texas EcoLab support (\$5,000; \$8,000).
- Ging-Yan Ho (MPS student; fall 2024)
- Eli Robinson (MPS student; spring 2023)

Cornell undergraduate students supervised: Keily Peralta (fall 2024 – present), Maya Mangala-Munuma (fall 2023 – present), Allison Kozak (summer 2023 – spring 2024), Kent Dong (summer - fall 2022), Stark Huang (summer- fall 2022), Chase ‘Blue’ Shapiro (summer 2022)

Committee member: Ruoyu Wu (MS student at the University of Michigan under the supervision of Kai Zhu; 2022 – 2024)

2022 – present            Plant Science Major advisor  
2010-2014, 2016-2018   Michigan Undergraduate Research Opportunity Program – Mentor

#### Visiting scientists hosted:

- Kacper Sobieraj, Adam Mickiewicz University, Poland, April 15 – June 30 2024: remote sensing of junipers and pollen monitor construction
- Dr. Susanne Jochner-Oette, Katholische Universitat Eichstatt-Ingolstadt, Germany, May 27-31, 2024
- Jasmin Meixner, Katholische Universitat Eichstatt-Ingolstadt, Germany, May 20-31, 2024

### Service & affiliations

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2023-present            Aeroallergen committee, American Academy of Allergy, Asthma & Immunology – Member  
2023-2024                SIPS Faculty Search Committee: urban plant ecology – Member and DEI representative  
2023-present            Distinguished Visitor in Organismal Biology – Planning committee member  
2023-present            Cornell Atkinson Center - Fellow  
2011-2014                Michigan Academy of Science Arts and Letters – Plant Ecology Section Chair  
2012-2013                SNRE Promotion and Tenure Committee – Member

Reviewer for: *Journal of Ecology, Ecography, Ecosphere, Aerobiologia, Evolution, Landscape and Urban Planning, Pest Management Science, PLOS One, Restoration Ecology, BioScience, Oecologia, Journal of the Torrey Botanical Society, Urban Forestry and Urban Greening, Forests, Plant Ecology, Atmospheric Environment, Forests, Ambio, Tree Physiology*

Invited reviewer for proposals from: Mitacs (Canada), National Science Centre (Poland), Belgium Research Programme for Earth Observation: STEREO IV (Belgium)

Professional society membership: *Ecological Society of America, International Society of Exposure Science, American Academy of Allergy, Asthma, and Immunology*

### Teaching, mentoring, and public engagement

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Fall 2024    **Cornell University**, Instructor & developer of PLSCI 4450/6450, Urban Plants and Public Health

- This course explores plants in urban landscapes and their effects on public health using hands-on research-oriented pedagogy.
- Enrollment in 2024: 14 students

Fall 2024    **Cornell University**, Director of the Plant Science Major Peer Mentoring Program

- Supervised 10 undergraduate peer mentors as they connected with all incoming students in the Plant Science major

Spring 2023, 2024    **Cornell University**, Co-instructor & co-developer of PLSCI 2430, Ecology & Evolution of Plants



- Co-created this new required core course for the Plant Science Major
- Enrollment in 2023: 26 students, Enrollment in 2024: 31 students.
- Co-supervised teaching team of three undergraduate teaching assistants
- Course highlights include active learning activities, a fieldtrip and lab on maple syrup production at Arnot Forest, and a hands-on lab comparing contemporary and historical plant phenology.

2014 & 2015	<b>University of Michigan</b> , Course Coordinator	Ann Arbor, MI
	<ul style="list-style-type: none"> <li>• Assisted with the creation and implementation of NRE 509: Ecological Systems – Concepts and Applications, the largest field class in departmental history.</li> <li>• Oversaw the efforts of six graduate student instructors each semester, assisted with curriculum development and implementation, worked with students to develop independent projects, and arranged logistics for the lab component of this class of ~90 students.</li> </ul>	
2010-2018	<b>University of Michigan</b> , Supervisor and Mentor	Ann Arbor, MI
	<ul style="list-style-type: none"> <li>• Primary supervisor and mentor of four undergraduate students through the Undergraduate Research Opportunity Program at the University of Michigan.</li> <li>• Worked with Victoria Bankowski, a non-traditional undergraduate student to quantify spatial heterogeneity in <i>Alternaria</i> spore concentration in Detroit and to create allometric equations for ragweed pollen production.</li> <li>• Worked with Tiffany Carey to create a research project and an accompanying educational outreach program in a Detroit high school on spatial variation in allergenic pollen in Detroit. Tiffany was awarded the SEEDS fellowship, competitive travel grants to ESA in 2011 and 2012, and has since been awarded the Brower Youth Award.</li> <li>• Other projects included plant-animal interactions in the context of tree range expansion (Max Ramsey) and spatial heterogeneity in the impacts of deer on tree seedlings using automatic trail cameras (Seema Patel).</li> <li>• Primary supervisor of 8 research assistants</li> </ul>	
2013-2014	<b>University of Michigan</b> , Ecological Education Consultant	Ann Arbor, MI
	<ul style="list-style-type: none"> <li>• Assisted with curriculum development for 7<sup>th</sup> graders in Ann Arbor public schools for a unit focusing on the impacts of climate change on Michigan forests.</li> </ul>	
2010 & 2011	<b>University of Michigan</b> , Graduate Student Instructor	Ann Arbor, MI
	<ul style="list-style-type: none"> <li>• Taught two sections of EEB 315: Ecology and Evolution of Infectious Diseases.</li> <li>• Led 68 students in discussions, computer labs, and wet labs over two semesters.</li> </ul>	
2005-2007	<b>EcoDiscoverers</b> , Program Co-Director	Annandale, NY
	<ul style="list-style-type: none"> <li>• Led the environmental education program EcoDiscoverers, a project devoted to educating youth about nature, science, and the outdoors.</li> <li>• Organized weekend expeditions for groups of up to 20 children aged 8-15, designed lesson plans, coordinated volunteers, and maintained a fun and safe learning environment.</li> </ul>	

## Other work experience

Spring 2009	<b>Boston University</b> , Research assistant: studied bats and ecosystem services	San Saba, TX
Fall 2008	<b>Progressive Future</b> , Community organizer: elected environmentally friendly legislators	PA, NH, CO
Summer 2008	<b>Cornell University</b> , Research assistant: studied nutrients and biodiversity in fens	Ithaca, NY
2007-2008	<b>We Love LEDs</b> , Business co-founder: established company selling LED light bulbs	Hong Kong
Summer 2007	<b>Natural Resources Group</b> , Research assistant: studied wetland restoration in the Bronx	New York, NY