# Dr. Radley Horton

Curriculum Vitae

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## RESEARCH INTERESTS AND EXPERTISE

Sea level rise, extreme climate events, adaptation, tail risks

# **EDUCATION**

2007	Ph.D., Earth and Environmental Sciences, Columbia University, New York, NY
2001	M.A., Earth and Environmental Sciences, Columbia University, New York, NY
1995	B.A., Environmental Policy Studies, Brown University, Providence, RI

## PROFESSIONAL APPOINTMENTS

2017-	Lamont Associate Research Professor (Senior Staff), Columbia University
2017-	Adjunct Research Scientist, Center for Climate Systems Research, Columbia U.
2013-	Adjunct Professor, Ecology, Evolution, and Environmental Biology, Columbia U.
2016-2017	Research Scientist, Center for Climate Systems Research, Columbia University
2007-2016	Associate Research Scientist, Center for Climate Systems Research, Columbia U.

# AWARDS/RESEARCH GRANTS (LEAD PI OR UNIVERSITY LEAD PI ONLY)

# Current funding as Project Lead-PI or Columbia Lead-PI

2015-2020	NOAA-RISA Program, "Consortium for Climate Risk in the Urban Northeast (CCRUN)", Lead-PI: R.M. Horton
2012-2019	Department of Interior/United States Geological Survey, "Northeast Climate Science Center (NECSC)", Columbia Lead-PI: R. M. Horton
2016-2018	Department of Interior/United States Geological Survey, "Mechanisms for species responses to climate change: Are there biological response thresholds?" Columbia Lead-PI: R.M. Horton
2012-2017	NSF Climate Change Education Partnership (CCEP), "Climate and Urban Systems Partnership", Columbia Lead-PI: R. M. Horton
2015-2017	World Wildlife Fund, "Adaptation for Development and Conservation (ADVANCE) Partnership", Columbia Lead PI: R. M. Horton

	2016-2017	World Wildlife Fund/USAID, "Integrating climate risk information for agricultural resilience and forest conservation in Paraguay", Lead PI: R. M. Horton
	2016-2017	NOAA, "From precipitation thresholds identification to planning: Helping communities plan and adapt to future extreme events", Columbia Lead-PI: R.M. Horton
	Prior funding	g as Project Lead-PI or Columbia Lead-PI
	2016	World Wildlife Fund/USAID, "Climate-Smart Landscape Planning in Asia's High Mountains", Lead PI: R. M. Horton
	2016	GIZ, "Climate Risk Information for Ecosystem-Based Adaptation", Lead PI: R. M. Horton
	2015-2016	World Wildlife Fund, "Integrating Climate Risk Information to WWF's Natural Capital Assessment in Myanmar", Lead PI: R. M. Horton
	2014-2015	Consolidated-Edison, "Temperature Projections to Support Impact Analysis on Infrastructure and Demand", Lead-PI: R.M. Horton
	2014-2015	World Wildlife Fund, "WWF's Asia's High Mountain's Project - Climate risk information, research and preparation for Nepal workshop, Lead PI: R. M. Horton
	2013-2014	NYSERDA, "Updated Climate Scenarios for New York State", Lead-PI: R. M. Horton
	2013-2014	USGS, "Facilitating Regional and Local Decision-making for Managing Coastal Wetlands", Columbia Lead-PI: R. M. Horton
	2013	USGS, "A Research and Decision Support Framework to Evaluate Sea Level Rise Impacts in the Northeast U.S.", Columbia Lead-PI: R.M. Horton
	2012-2013	National Park Service, "Climate Science Synthesis and Analysis to Support NPS Scenario Workshop", Lead-PI: R. M. Horton
	2010-2012	NSF Climate Change Education Partnership (CCEP), "Climate and Urban Systems Partnership Pilot Project", Columbia Lead-PI: R.M. Horton
SELECT PROFESSIONAL ACTIVITIES		
Select Advisory Experience, Task Force, Committee, and Project Membership		
	2017-	Member, Columbia Campaign Climate Change Task Force

Advisor, Transportation Team, Sustainable Columbia

2017-

2017-	Columbia University Department of Earth and Environmental Sciences Graduate Student Admissions Committee
2016-	Co-chair, Columbia University Initiative on Adaptation to Climate Change
2016-	Member, Climate Science Special Report Team in Support of the 4 <sup>th</sup> National Climate Assessment
2016-	Sea Level Rise and Coastal Flood Hazard Scenarios and Tools Interagency Task Force Member
2015-	Climate Scenarios Task Force Member, US Global Change Research Program, Fourth U.S. National Climate Assessment and Sustained Assessment
2015-	Advisory Board Member, Vulnerability, Impacts, and Adaptation and Climate Services (VIACS)
2015-	Advisory Board Member, Great Lakes Integrated Sciences and Assessments (GLISA) NOAA-RISA Project
2015-	Climate and Hydrologic Events Team and New York City Team Member, NSF-funded Urban Resilience to Extremes Sustainability Research Network (UREx SRN)
2014-	Advisory Committee Member, Columbia University Initiative on Extreme Weather and Climate
2014-	Science Development Committee Member, Jamaica Bay Science and Resilience Institute
2013-	Expert Witness, e.g., NY State Public Service Commission, 'Rate Case' involving Consolidated Edison
2012-	Scientific Advisor, Showtime television series "Years of Living Dangerously"
2008-	Author and Member, Urban Climate Change Research Network, First and Second Assessment Reports for Climate Change and Cities
2008-2017	Climate Science Lead, New York City Panel on Climate Change
2016-2017	Columbia University Earth Institute Doctoral Fellows Program Admissions Committee
2015	Member and Author, U.S. National Climate Assessment Special Report on Health Impacts of Climate Change
2009-2015	Deputy to Lead, NASA Climate Adaptation Science Investigator Working Group
2012-2014	Climate Science Applications Team Member, National Climate Predictions and

# Projections Platform

2011-2014	Convening Lead Author, Northeast Region, Third U.S. National Climate Assessment		
2011-2014	Author, Research Agenda for the Programme on Vulnerability, Impacts and Adaptation to Climate Change (PROVIA)		
2013	Curriculum Adviser, USAID-funded Certificate Program in Forest Conservation and Climate Mitigation, University of Indonesia		
2013	Department of Interior Strategic Sciences Group Member, Operational Group Sandy		
2013	Advisory Panel Member, Department of Planning "Neighborhood Gamechangers" Sandy Community Recovery Program		
2013	Advisor, NYC Department of Environmental Protection, Water Supply and Climate Change Program		
2011-2012	Member, Sea Level Rise Task Force, Third U.S. National Climate Assessment		
Select Confe	Select Conference and Workshop Convening		
2014	Co-Convener, "Connecting Climate Projections to Responses in Coastal and Continental Shelf Environments", Oral Session at 2014 American Geophysical Union Annual Meeting, San Francisco, CA, December 16, 2014		
2013	Convener and Co-Organizer, "Using Climate Information", Plenary Session at the 2013 NOAA-RISA Annual Meeting, San Diego, CA, January 16, 2013		
	Co-Convener and Co-Organizer, "The Urban Climate Change Research Network", Special Session at the 10 <sup>th</sup> Ecocity World Summit, Nantes, France, September 26, 2013		
2012	Co-Convener and Co-Organizer, PROVIA Research Prioritization for Least Developed Country Policymakers Meeting, Insel House, Bonn, Germany, May 22, 2012		
	Convener and Co-Organizer, "West Virginia Listening Session in Support of the 3 <sup>rd</sup> U.S. National Climate Assessment", Morgantown, WV, February 16, 2012		
2011	Co-Convener and Co-Organizer, "Climate Change in the Northeast Region: A Kickoff Workshop in Support of the 3 <sup>rd</sup> U.S. National Climate Assessment", Columbia University, November 17-18, 2011		
	Co-Organizer, PROVIA Research Prioritization for Policymakers Meeting, Department of Environment, Food, and Rural Affairs (DEFRA), Nobel House, London, UK, November 2, 2011.		

Co-Organizer, PROVIA Research Prioritization for Policymakers Meeting, Keck Center, The National Academies, Washington, D.C., October 28, 2011.

Co-Convener and Co-Organizer, "Climate Change 101 for Risk Management and Decision Making" Half-day session at Environment, Energy Security and Sustainability Symposium of the National Defense Industrial Organization, New Orleans, LA, May 10, 2011.

### Reviewing

Journals: Bulletin of the American Meteorological Society, Climate Dynamics, Climatic Change, Earth's Future, Environmental Management, Environmental Research Letters, Health Security, International Journal of Climatology, Journal of Applied Meteorology and Climatology, Journal of Climate, Journal of Coastal Research, Journal of Geophysical Research—Atmospheres, Natural Hazards, Nature Climate Change, Nature Communications, Nature Scientific Reports, Plos One, Regional Environmental Change, Water Resources Research, WIREs Climate Change

Proposal Review Panels: NASA ROSES, NASA CASI and NOAA-RISA

# **Professional Memberships**

American Geophysical Union American Meteorological Society

#### TEACHING EXPERIENCE

#### Courses

Instructor/Faculty Advisor (two semesters per year): *Capstone Workshop in Sustainable Development (SDEV3280)* Earth Institute, Columbia University, New York, NY
Mean Evaluation as an Instructor: 4.6, on a scale of 1-5

Guest lecturer in 15+ graduate and undergraduate courses at Columbia and other New York City universities and colleges

### **Graduate Students**

2013-	Ethan Coffel, Department of Earth and Environmental Sciences, Columbia U.
2014-	Colin Raymond, Department of Earth and Environmental Sciences, Columbia U.
2017-	Corey Lesk, Department of Earth and Environmental Sciences, Columbia U.

### **Postdoctoral Mentees**

2015-2017	Justin Mankin, Columbia U. Earth Institute Post-Doc Fellow (shared)
2017-	Deepti Singh, Columbia University (shared)

# **Graduate Student Committee Memberships**

- Jason Wong, Program in Sustainable Development, Columbia University
- 2016- Luis Ortiz, Department of Mechanical Engineering, City College of New York
- 2016- Huanping Huang, Department of Earth Sciences, Dartmouth College

### **PUBLICATIONS**

#### Select Articles In Review/Submitted

- Mandle L., S. Wolny, N. Bhagabati, H. Helsingen, P. Hamel, R. Bartlett, A. Dixon, R. Horton, C. Lesk, D. Peters, M. De Mel and D. Bader, Assessing ecosystem service provision under climate change to support conservation and development planning in Myanmar, *Accepted, September* 2017.
- Raymond, C., D. Singh, and R. M. Horton, Spatiotemporal Patterns and Dynamics of Extreme Wet-Bulb Temperature in the Contiguous United States, *Revised and Resubmitted to Journal of Geophysical Research: Atmospheres, September 2017.*
- Coffel, E., R. M. Horton and A. De Sherbin, Temperature and humidity based projections of a rapid rise in global heat stress exposure during the 21st century. *Under Revision, Environmental Research Letters, September 2017*.
- Kopp, R. E., R. M. DeConto, D. Bader, C. C. Hay, R. M. Horton, S. Kulp, M. Oppenheimer, D. Pollard, and B. H. Strauss, Implications of ice-shelf hydrofracturing and ice-cliff collapse mechanisms for sea-level projections. *In review with Earth's Future, August 2017*.

### **Peer-Reviewed Articles**

- Lesk, C., Coffel, E., D'Amato, A. W., Dodds, K., & Horton, R. (2017). Threats to North American forests from southern pine beetle with warming winters. *Nature Climate Change*.
- Coffel, E. D., Thompson, T. R., & Horton, R. M. (2017). The impacts of rising temperatures on aircraft takeoff performance. *Climatic Change*, 1-8.
- Huang, H., Winter, J. M., Osterberg, E. C., Horton, R. M., & Beckage, B. (2017). Total and extreme precipitation changes over the Northeastern United States. *Journal of Hydrometeorology*, *18*(6), 1783-1798.
- Mankin, J. S., Viviroli, D., Mekonnen, M. M., Hoekstra, A. Y., Horton, R. M., Smerdon, J. E., & Diffenbaugh, N. S. (2017). Influence of internal variability on population exposure to hydroclimatic changes. *Environmental Research Letters*, *12*(4), 044007.
- Chen, K., Horton, R. M., Bader, D. A., Lesk, C., Jiang, L., Jones, B., ... & Kinney, P. L. (2017). Impact of climate change on heat-related mortality in Jiangsu Province, China. *Environmental pollution*, 224, 317-325.
- Horton, R. M., Mankin, J. S., Lesk, C., Coffel, E., & Raymond, C. (2016). A Review of Recent Advances in Research on Extreme Heat Events. *Current Climate Change Reports*, 2(4), 242-259.
- Lentz, E., E.R. Thieler, N.G. Plant, S.R. Stippa, R.M. Horton, and D.B. Gesch (2016), Evaluation of dynamic coastal response to sea-level rise modifies inundation likelihood, *Nature Climate Change*.
- Chao-Yuan, Y., Liu, J., Hu, Y., Horton, R. M., Chen, L., & Cheng, X. (2016). Assessment of Arctic and Antarctic sea ice predictability in CMIP5 decadal hindcasts. *The Cryosphere*, 10(5), 2429.

- Ruane, A. C., Teichmann, C., Arnell, N. W., Carter, T. R., Ebi, K. L., Frieler, K., ... & Lotze, H. K. (2016). The Vulnerability, Impacts, Adaptation and Climate Services Advisory Board (VIACS AB v1. 0) contribution to CMIP6. *Geoscientific Model Development*, *9*(9), 3493.
- Petkova, E. P., Vink, J. K., Horton, R. M., Gasparrini, A., Bader, D. A., Francis, J. D., & Kinney, P. L. (2016). Towards more comprehensive projections of urban heat-related mortality: estimates for New York City under multiple population, adaptation, and climate scenarios. *Environmental health perspectives*.
- Li, T., Horton, R. M., Bader, D. A., Zhou, M., Liang, X., Ban, J., ... & Kinney, P. L. (2016). Aging will amplify the heat-related mortality risk under a changing climate: projection for the elderly in Beijing, China. *Scientific reports*, 6.
- Winter, J., B. Beckage, G. Bucini, R.M. Horton, and P.J. Clemins (2016), Development and Evaluation of High-Resolution Climate Simulations over the Mountainous Northeastern U.S. *Journal of Hydrometeorology*.
- Ngo, N. S., & Horton, R. M. (2016). Climate change and fetal health: The impacts of exposure to extreme temperatures in New York City. *Environmental Research*, 144, 158-164.
- Coffel, E. D., & Horton, R. M. (2016). Reply to "Comment on 'Climate Change and the Impact of Extreme Temperatures on Aviation". *Weather, Climate, and Society*, 8(2), 207-208.
- Keith, B., Ford, D. N., & Horton, R. (2016). Considerations in managing the fill rate of the Grand Ethiopian Renaissance Dam Reservoir using a system dynamics approach. *The Journal of Defense Modeling and Simulation: Applications, Methodology, Technology*, 1548512916680780.
- Horton, R. M., Coffel, E. D., Winter, J. M., & Bader, D. A. (2015). Projected changes in extreme temperature events based on the NARCCAP model suite. *Geophysical Research Letters*, 42(18), 7722-7731.
- Horton, R.M., D. Bader, Y.Kushnir, C. Little, R. Blake, and C. Rosenzweig (2015). Climate Observations and Projections. Annals of the New York Academy of Sciences 1336 (1), 18-35.
- Horton, R.M., C. Little, V. Gornitz, D. Bader, and M. Oppenheimer (2015). Sea Level Rise and Coastal Storms. Annals of the New York Academy of Sciences 1336 (1), 36-44.
- Orton, P., Vinogradov, S., Georgas, N., Blumberg, A., Lin, N., Gornitz, V., ... & Horton, R. (2015). New York City Panel on Climate Change 2015 Report Chapter 4: Dynamic Coastal Flood Modeling. *Annals of the New York Academy of Sciences*, 1336(1), 56-66.
- Little, C. M., Horton, R. M., Kopp, R. E., Oppenheimer, M., Vecchi, G. A., & Villarini, G. (2015). Joint projections of US East Coast sea level and storm surge. *Nature Climate Change*.
- Liu, J., Song, M., Horton, R. M., & Hu, Y. (2015). Revisiting the potential of melt pond fraction as a predictor for the seasonal Arctic sea ice extent minimum. *Environmental Research Letters*, 10(5), 054017.
- Li, T., Ban, J., Horton, R. M., Bader, D. A., Huang, G., Sun, Q., & Kinney, P. L. (2015). Heat-related mortality projections for cardiovascular and respiratory disease under the changing climate in Beijing, China. *Scientific reports*, 5.
- Little, C., R.M. Horton, R. Kopp, M. Oppenheimer, and S. Yip (2015): Uncertainty in 21st Century CMIP5 Sea Level Projections. *Journal of Climate* 28 (2), 838-852.
- Coffel, E., & Horton, R. (2015). Climate change and the impact of extreme temperatures on aviation. *Weather, Climate, and Society*, 7(1), 94-102.
- Schwartz, J., M. Lee, P. L Kinney, S. Yang, D. Mills, M. Sarofim, R. Jones, R. Streeter, A. St. Juliana, J. Peers and R. M. Horton (2015). Projections of temperature-attributable deaths in 209 U.S. cities using a cluster-based Poisson approach. *Environmental Health*, *14*(1), 85.
- Horton, R. M., & Liu, J. (2014). Beyond Hurricane Sandy: What Might the Future Hold for Tropical Cyclones in the North Atlantic? *Journal of Extreme Events*, 1(01).

- Rosenzweig, C., Horton, R. M., Bader, D. A., Brown, M. E., DeYoung, R., Dominguez, O., ... & Toufectis, K. (2014). Enhancing Climate Resilience at NASA Centers: A Collaboration between Science and Stewardship. *Bulletin of the American Meteorological Society*, *95*(9), 1351-1363.
- Kopp, R. E., Horton, R. M., Little, C. M., Mitrovica, J. X., Oppenheimer, M., Rasmussen, D. J., ... & Tebaldi, C. (2014). Probabilistic 21st and 22nd century sea-level projections at a global network of tide-gauge sites. *Earth's Future*, 2(8), 383-406.
- Petkova, E. P., Bader, D. A., Anderson, G. B., Horton, R. M., Knowlton, K., & Kinney, P. L. (2014). Heat-related mortality in a warming climate: Projections for 12 US cities. *International journal of environmental research and public health*, *II*(11), 11371-11383.
- Guilbert, J., Beckage, B., Winter, J. M., Horton, R. M., Perkins, T., & Bomblies, A. (2014). Impacts of Projected Climate Change over the Lake Champlain Basin in Vermont. *Journal of Applied Meteorology and Climatology*, 53(8), 1861-1875.
- Li, T., Horton, R. M., & Kinney, P. L. (2013). Projections of seasonal patterns in temperature related deaths for Manhattan, New York. *Nature Climate Change*.
- Liu, J., Song, M., Horton, R. M., & Hu, Y. (2013). Reducing spread in climate model projections of a September ice-free Arctic. *Proceedings of the National Academy of Sciences*, 110(31), 12571-12576.
- Barsugli, J. J., Guentchev, G., Horton, R., M., Wood, A., Mearns, L. O., Liang, X. Z., Winkler, J., Dixon, K., Hayhoe, K., Rood, R.B., Goddard, L., Ray, A., Buja, L. and Ammann, C. (2013). The Practitioner's Dilemma: How to Assess the Credibility of Downscaled Climate Projections. *Eos, Transactions American Geophysical Union*, *94*(46), 424-425.
- Ruane, A. C., Cecil, L. D., Horton, R. M., Gordón, R., McCollum, R., Brown, D., ... & Rosenzweig, C. (2013). Climate change impact uncertainties for maize in Panama: Farm information, climate projections, and yield sensitivities. *Agricultural and Forest Meteorology*, 170, 132-145.
- Ahmed, K.F., G. Wang, J. Silander, A.M. Wilson, J.M. Allen, R. Horton, and R. Anyah, 2013: Statistical downscaling and bias correction of climate model outputs for climate change impact assessment in the U.S. northeast. *Glob. Planet. Change*, 100, 320-332.
- Ruane, A. C., Major, D. C., Winston, H. Y., Alam, M., Hussain, S. G., Khan, A. S., ... & Rosenzweig, C. (2013). Multi-factor impact analysis of agricultural production in Bangladesh with climate change. *Global Environmental Change*, 23(1), 338-350.
- Petkova, E. P., Horton, R. M., Bader, D. A., & Kinney, P. L. (2013). Projected Heat-Related Mortality in the US Urban Northeast. *International journal of environmental research and public health*, 10(12), 6734-6747.
- Liu, J., J. A. Curry, H. Wang, M. Song, and R. M. Horton. 2012. Impact of declining Arctic sea ice on winter snowfall. *Proceedings of the National Academy of Sciences* USA 109 (2012).
- Horton, R.M., V. Gornitz, D.A. Bader, A.C. Ruane, R. Goldberg, and C. Rosenzweig, 2011: Climate hazard assessment for stakeholder adaptation planning in New York City. *J. Appl. Meteorol. Climatol.*, 50, 2247-2266, doi:10.1175/2011JAMC2521.1.
- C. Rosenzweig, W. D. Solecki, R. Blake, M. Bowman, C. Faris, V. Gornitz, R. M. Horton, K. Jacob, A. LeBlanc, R. Leichenko, M. Linkin, D. Major, M. O'Grady, L. Patrick, E. Sussman, G. Yohe, and R. Zimmerman (2011), Developing Coastal Adaptation to Climate Change in New York City Infrastructure-shed: process, approach, tools, and strategies, Climatic Change Challenges and Opportunities, *Climatic Change*, 106 (1), pp. 93-127, DOI: 10.1007/s10584-010-0002-8.
- Horton, R. M., V. Gornitz, and M. Bowman, 2010, Climate Observations and Projections, in Climate Change Adaptation in NYC: Building a Risk Management Response. C. Rosenzweig

- & W. Solecki, Eds. Annals of the N.Y. Acad. of Sci. 2010 (1185). NY, NY. 349 pp.
- Horton, R., Rosenzweig, C., Gornitz, V., Bader, D., & O'Grady, M. (2010). Climate risk information. *Annals of the New York Academy of Sciences*, 1196(1), 147-228.
- Horton, R., Herweijer, C., Rosenzweig, C., Liu, J., Gornitz, V., & Ruane, A. C. (2008). Sea level rise projections for current generation CGCMs based on the semi-empirical method. *Geophysical Research Letters*, *35*(2) L02715, doi:10.1029/2007GL032486.
- Liu, J., J. A. Curry, Y. Dai, and R. M. Horton, 2007: Causes of the northern high-latitude land surface winter climate change, *Geophys. Res. Lett.*, 34, L14702, doi:10.1029/2007GL030196.
- Liu, J., Z. Zhang, R. M. Horton, C. Wang, 2007: Variability of north Pacific sea ice and east Asianorth Pacific winter climate, *Journal of Climate*, 20, 1991-2001.
- Liu, J., Z. Zhang, J. Inoue, and R. M. Horton, 2007: Evaluation of snow/ice albedo parameterizations and their impacts on sea ice simulation, *Intl. Journal of Climatology*, 27, 81-91.
- Rosenzweig, C., D. C. Major, K. Demong, C. Stanton, R. M. Horton, and M. Stults, 2007: Managing Climate Change Risks in New York City's water system: assessment and adaptation planning, *Mitigation & Adaptation Strategies for Global Change*, doi:10.1007/s11027-006-9070-5.

### **Additional Publications**

- Sweet, W. V., Kopp, R. E., Weaver, C. P., Obeysekera, J., Horton, R. M., Thieler, E. R., & Zervas, C. (2017). Global and regional sea level rise scenarios for the United States.
- Horton, R., Rosenzweig, C., Solecki, W., Bader, D., & Sohl, L. (2016). Climate science for decision-making in the New York metropolitan region. *Climate in Context: Science and Society Partnering for Adaptation*, 51-72.
- Sarofim, M. C., Saha, S., Hawkins, M. D., Mills, D. M., Hess, J., Horton, R., ... & Juliana, A. S. (2016). *Ch. 2: Temperature-Related Death and Illness* (pp. 43-68). US Global Change Research Program, Washington, DC.
- Solecki, W., Rosenzweig, C., Solecki, S., Patrick, L., Horton, R., & Dorsch, M. (2016). New York, USA. Cities on a Finite Planet: Towards Transformative Responses to Climate Change, 169.
- Lentz, E. E., Stippa, S. R., Thieler, E. R., Plant, N. G., Gesch, D. B., & Horton, R. M. (2015). Evaluating coastal landscape response to sea-level rise in the northeastern United States: approach and methods (No. 2014-1252). US Geological Survey.
- Horton, R., G. Yohe, W. Easterling, R. Kates, M. Ruth, E. Sussman, A. Whelchel, D. Wolfe, and F. Lipschultz, 2014: Ch. 16: Northeast. Climate Change Impacts in the United States: The Third National Climate Assessment, J. M. Melillo, Terese (T.C.) Richmond, , and G. W. Yohe, Eds., U.S. Global Change Research Program, 16-1–16-nn.
- Horton, R. M., Bader, D. A., Rosenzweig, C., DeGaetano, A. T., & Solecki, W. (2014). Climate Change in New York State Updating the 2011 ClimAID Climate Risk Information Supplement to NYSERDA Report 11-18 (Responding to Climate Change in New York State).
- Solecki, W., Rosenzweig, C., Gornitz, V., Horton, R., Major, D. C., Patrick, L., & Zimmerman, R. (2014). Climate change and infrastructure adaptation in coastal New York City. *Climate Change and the Coast: Building Resilient Communities*, 125.
- Rosenzweig, C. and R.M. Horton. The Programme on Vulnerability, Impacts and Adaptation (PROVIA) Global Research Priorities, United Nations Environmental Programme Report

- Snyder, S., Hoffstadt, R. M., Allen, L. B., Crowley, K., Bader, D. A., & Horton, R. M. (2014). Citywide collaborations for urban climate education. *Future Earth: Advancing Civic Understanding of the Anthropocene*, 203, 103-109.
- Major, D. C., Gornitz, V., Horton, R., Bader, D., Solecki, W., & Rosenzweig, C. (2013). Climate Adaptation in New York City. *Climate Adaptation and Flood Risk in Coastal Cities*, 265.
- Parris, A., P. Bromirski, V. Burkett, D. Cayan, M. Culver, J. Hall, R. Horton, K. Knuuti, R. Moss, J. Obeysekera, A. Sallenger, and J. Weiss. 2012. Global Sea Level Rise Scenarios for the US National Climate Assessment. NOAA Tech Memo OAR CPO-1. 37 pp.
- Horton, R., D. Bader, L. Tryhorn, A. DeGataetano, and C. Rosenzweig, 2011: Climate risks. In Responding to Climate Change in New York State: The ClimAID Integrated Assessment for Effective Climate Change Adaptation: Technical Report. C. Rosenzweig, W. Solecki, A. DeGaetano, M. O'Grady, S. Hassol, and P. Grabhorn, Eds. New York State Energy Research and Development Authority, pp. 15-48.
- Jacob, K., N. Maxemchuk, G. Deodatis, A. Morla, E. Schlossberg, I. Paung, M. Lopeman, R. Horton, D. Bader, R. Leichenko, P. Vancura, and Y. Klein, 2011: <u>Telecommunications</u>. In *Responding to Climate Change in New York State: The ClimAID Integrated Assessment for Effective Climate Change Adaptation: Technical Report*. C. Rosenzweig, W. Solecki, A. DeGaetano, M. O'Grady, S. Hassol, and P. Grabhorn, Eds. New York State Energy Research and Development Authority, pp. 363-396.
- Blake, R., A. Grimm, T. Ichinose, R. M. Horton, S. Gaffin, D. Cecil, S. Jong, K. Seto, and D. Bader, Urban Climate: Processes, Trends and Projections, in The First Assessment Report of the Urban Climate Change Research Network, C. Rosenzweig, B. Solecki, and S. Hammer eds., Cambridge University Press, *2010*.
- Horton, R.M., C. Rosenzweig, V. Ramaswamy, P.L. Kinney, R. Mathur, J. Pleim, and S.T. Rao, 2010, Integrated Climate Change Information for Resilient Adaptation Planning, *EM Magazine*, November 2010.
- Jacob, K., R. Blake, R. M. Horton, D. Bader, and M. O'Grady, 2010, Indicators and Monitoring, in Climate Change Adaptation in New York City: Building a Risk Management Response. C. Rosenzweig & W. Solecki, Eds. Annals of the N.Y. Academy of Sci. 2010 (1185). NY, NY. 349 pp\_35,
- Alcorn, J.M., C. E. Rosenzweig, R. M. Horton, and I.S. Higuchi, Jr., 2008, U.S. Space Transportation and Climate Change: Potential Impacts of Climate Change on Access to Space, ASCE Conf. Proc. 323, 130 (2008), DOI:10.1061/40988(323)130
- Rosenzweig, C., D.C. Major, R. M. Horton, and others 2008, Chapter 1 of NYC Department of Environmental Protection Assessment and Action Plan-A Report Based on the DEP Climate Change Task Force, New York, NY.
- Horton, R. M., 2007: An Observational and Modeling Study of the Regional Impacts of Climate Variability. Ph.D. thesis. Columbia University.
- Rosenzweig, C., R. M. Horton, D.C. Major, V. Gornitz, and K. Jacob, 2007: Appendix 2: Climate Component, 8.8.07 MTA Task Force Report. In *August 8, 2007, Storm Report*. Metropolitan Transportation Authority, pp. 73.

## **SELECT PRESENTATIONS (Lead Author/Presenter Only)**

#### **Academic Presentations**

- "On Geoengineering and Tail Risk", Kent Presents, Kent, CT, July 29th, 2017. (invited)
- "Impacts of Climate Change on Invasive Species", Regional Invasive Species and Climate Change Symposium, University of Massachusetts at Amherst, MA, July 27<sup>th</sup>, 2017. (*invited keynote*).
- "Some Perspectives on the Application of Climate Projections to Agro-ecological Decisions", Northeastern Agricultural and Resource Economics Association Workshop, Washington, D.C., June 13<sup>th</sup>, 2017. (*invited keynote*)
- "Environmental Impacts of Heat Stress", National Council for Science and the Environment, Washington, D.C., January 25, 2017.
- "Some Perspectives on the Application of Climate Science Information to Legal Questions", Legal Solutions for Failure to Act on Known Climate Risks Workshop, New York, NY, January 23, 2017.
- "Threats to North American Forests from Southern Pine Beetle with Warming Winters", American Geophysical Union, San Francisco, CA, December 14<sup>th</sup>, 2016.
- "Participatory Climate Research in A Dynamic Urban Context", American Geophysical Union, San Francisco, CA, December 13<sup>th</sup>, 2016.
- "Projected 21<sup>st</sup> Century Temperature Extremes and Human Health Impacts", Climate Change and Emerging Infectious Diseases Seminar, University of Albany, Albany, NY, December 6, 2016. (*invited*)
- "Columbia University's Cross-Cutting Adaptation Initiative", Earth Institute Faculty Meeting, New York, NY, November 14<sup>th</sup>, 2016.
- "Risk Framing Task Force: Progress and Integration with the Climate Science Special Report (CSSR)", CSSR Lead Authors Meeting, Boulder, CO, November 2<sup>nd</sup>, 2016.
- "Climate Change, Extreme Events, and Human Health", Health and Climate Colloquium, International Research Institute for Climate Prediction, Palisades, NY, June 8<sup>th</sup>, 2016.
- "Accounting for Climate Change Adaptation in Planning Processes and Documents: A Case Study from the Northeast Climate Science Center", Accounting for the Impacts of Climate Change on Public Lands and Natural Resources under NEPA and Other Planning Processes, Sabin Center, New York, NY, June 15<sup>th</sup>, 2016.
- "A Research Plan for Surprises", Lamont-Doherty Earth Observatory, New York, NY, May 11<sup>th</sup>, 2016. (*invited*)
- "Co-generated Climate Science Information for Urban Decision Makers", Climate Prediction Applications Science Workshop, Burlington, VT, March 24<sup>th</sup>, 2016.
- "Joint Hazard Assessment for Urban Decision-makers in the Northeast U.S.", American Geophysical Union, San Francisco, CA, December 16<sup>th</sup>, 2015. (*invited*)

- "The Impacts of Heat Stress on Densely-Populated Regions in the 21<sup>st</sup> Century", Press Conference, American Geophysical Union, San Francisco, CA, December 16<sup>th</sup>, 2015. (*invited*)
- "When 1+1=3; Applying a Joint Hazard Framework to Climate Risk Management", First Extreme Weather and Climate Seminar/ SEAS Colloquium in Climate Science, Columbia University, NY, NY, November 10, 2015. (*invited*)
- "Why We Need More Research on Extreme Events", Panel Discussion at Launch of Columbia University's Initiative on Extreme Weather and Climate, New York, NY, February 23<sup>rd</sup> 2015.
- "Investigating Extreme Heat and Humidity in the Northeast United States from a Joint Hazard Perspective", American Geophysical Union Annual Meeting, San Francisco, CA, December 19<sup>th</sup> 2014.
- "Research Agenda for Vulnerability, Impacts and Adaptation, and Steps Toward Implementation", 20<sup>th</sup> Conference of the Parties Side Event at the Japanese Pavillion, Lima, Peru, December 4<sup>th</sup>, 2014. (*invited*)
- "Urban Environmental Challenges of Climate Change", Conference on Climate Adaptation in Turkey, Marmara University, Istanbul, Turkey, October 30<sup>th</sup>, 2014. (*invited*)
- "Anticipating Sea Level Rise and Coastal Flooding in the Northeast U.S" Rising Seas Summit, New York, NY, September 24<sup>th</sup> 2014. (*invited*)
- "Climate Change Impacts in the Northeast", Ecological Society of America Annual Meeting, Sacramento, CA, August 8<sup>th</sup>, 2014.
- "Biodiversity and Climate Change: Common Strategies for Sustainable and Resilient Cities". Naturparif Congress: Nature in the City, Paris, France, June 4, 2014. (*invited*)
- "Next-Generation Sea Level Rise Projections", University of Colorado, Boulder, CO, March 5, 2014. (*invited*)
- "Anticipating Sea Level Rise and Coastal Flooding in New York City", UNAVCO Annual Science Meeting, Boulder, CO, March 4, 2014. (*invited*)
- "Climate Science Update", New York Water Environment Association 86<sup>th</sup> Annual Meeting, NY, NY, February 3, 2014. (*invited*)
- "Nature as a Source of Innovation: Examples from the Urban Northeast U.S." National Council for Science and the Environment Building Climate Solutions Conference, Washington, D.C., January 28, 2014.
- "Implications of Arctic Sea Ice Loss for Regional and Global Climate", Yale Climate and Energy Institute Seminar Series, New Haven, CT., October 28<sup>th</sup>, 2013. (*invited*)
- "Global and Regional Climate Models and Water Resource Planning", Pollution and Water Resources Seminar Series, Columbia University, NY, NY, November 21, 2013. (*invited*)

"A Changing Climate" Waterfront Conference, Stevens Institute of Technology, Hoboken, NJ, October 8, 2013. (*invited*)

"Responding to the Sustainable Development Challenge: The Urban Climate Change Research Network", Ecocity, Nantes, France, September 26, 2013. (*invited*)

Climate Impacts and Adaptation in the Mid-Atlantic", U.S. Coast Guard Academy Workshop, New London, CT, September 20, 2013. (*invited*)

"Science-Policy Interactions in NYC in the Wake of Hurricane Sandy", American Geophysical Union Science Policy Conference, Washington, D.C, June 25, 2013. (*invited*)

"Science for Hurricane Sandy Recovery", Lamont Doherty Earth Observatory Workshop on Extreme Events, Nyack, NY, May 23, 2013.

"Extreme Temperatures and their Mechanisms in NARCCAP Simulations", American Geophysical Union Annual Meeting, San Francisco, CA, December 3, 2012.

"Climate Adaptation Experiments in the Urban Northeastern U.S." City Hall Sustainability Symposium, Paris, France, October 24, 2012. (*invited*)

"Global Priorities for Adaptation Research", Adaptation Futures Conference, Tucson, AZ, May 31, 2012.

"The Spatial Resolution of Climate Information for Adaptation: What Do We Really Need?", Adaptation Futures Conference, Tucson, AZ, May 29, 2012. (*invited*)

"NASA Science in Support of Adaptation: Activities of the Climate Adaptation Science Investigator (CASI) Work Group" American Geophysical Union Annual Meeting, San Francisco, CA, December 6, 2011.

"Extreme Events and Urban Adaptation Planning" Researcher Colloquium on *Extreme Weather Phenomena under Climate Change*, Boulder, CO, June 15, 2011. (*invited*)

"Climate Change 101 for Risk Management and Decision Making", Environment, Energy Security and Sustainability Symposium of the National Defense Industrial Organization, New Orleans, LA, May 10, 2011.

"Comparison of Regional Climate Model Simulations and Downscaling Techniques for Stakeholder-Driven Research in the Urban Northeast U.S.", International Conference on the Coordinated Regional Downscaling Experiment (CORDEX), Trieste, Italy, March 21, 2011. (invited)

"Comparison of Downscaling Techniques for Stakeholder-Driven Research in the Urban Northeast U.S.", AMS Annual Meeting, Seattle, WA, January 27, 2011.

- "Climate Input Requirements for Urban Impact and Adaptation Projects", World Climate Research Program Workshop on Regional Climate, Lille, France, June 13, 2010. (*invited*)
- "Climate Hazard Assessment and Risk Management for Southeastern Hydrological Applications", University of Florida Water Institute Symposium, Gainesville, FL, February 24, 2010. (*invited*)
- "Frameworks for Regional Climate Change Impact Assessments and Adaptation Planning", School of Marine and Atmospheric Sciences Seminar, Stony Brook, NY, May 6, 2009. (*invited*)
- "Regional Climate Change Impact Assessments and Adaptation Planning", Lamont Doherty Earth Observatory DOCP Seminar, Palisades, NY, April 24, 2009. (*invited*)
- "Impacts of Climate Change on Food Production and Water Resources", Goddard Space Flight Center, Greenbelt, MD, April 7, 2009.
- "Climate Change Scenarios for the New York Metropolitan Region", American Meteorological Society Annual Meeting, Phoenix, AZ, January 15, 2009.
- "Climate Change and the NYC Region", Coastal Cities Summit, Tampa, FL, November 20, 2008. (invited)
- "U.S. Space Transportation and Climate Change: Potential Impacts on Access to Space", American Society of Civil Engineers—Earth and Space Conference, Long Beach, CA, March 5, 2008.
- "Climate Change and Coastal New York City", Conference on Coastal Atmospheric & Oceanic Prediction & Processes and the Urban Environment, American Meteorological Society, San Diego, CA, September 10, 2007.
- "Climate Change and the National Parks System", George Wright Society, Minneapolis, MN, April 19, 2007. (*invited*)

#### **Additional Presentations**

- "Extreme Heat Events and their Neighborhood-Scale Impacts", Jamaica Bay Science and Resilience Institute, Queens, NY, May 24<sup>th</sup>, 2017.
- "Climate Change and Its Impacts in New York City", New York City Housing Authority Conference, Jan 11th, 2017.
- "Planning for Extremes", Franklin Institute's Waterways of a Changing Climate Event, Philadelphia, PA, November 10<sup>th</sup>, 2016.
- "Impacts of Sea Level Rise", Science in Antarctica: The Challenges, the Opportunities, and the National Interest, Rayburn House Office Building, Washington, D.C., November 3<sup>rd</sup>, 2016.
- "Regional Climate Information", Public Service Enterprise Group-Long Island Power Authority Briefing on Storm Hardening, Hewlett, NY, August 15<sup>th</sup>, 2016.

- "Regional Climate Change", Port Authority of New York and New Jersey, New York, NY, April 7<sup>th</sup>, 2016.
- "On the Role of Climate Information in Long-Term Urban Planning", Climate Change and the Scales of the Environment, Graduate School of Architecture, Planning and Preservation, December 4<sup>th</sup>, 2015.
- "Managing Coastal Risk: Enhancing Community Resilience In A Changing Climate" Third Annual Cape Coastal Conference, Hyannis, MA, December 10, 2015. (*invited*)
- "Attributing Extreme Events to Climate Change", Plenary Talk at Water Utility Climate Alliance Annual Meeting, Savannah, GA, October 14, 2015. (*invited*)
- "Responding to Climate Change in NYC" Building Energy Exchange, NY, NY, August 13, 2015. (invited)
- "Integrating Climate Change into A Green Economy Perspective", Ministry of Environmental Conservation and Forestry and WWF Inception Workshop, Naypyidaw, Myanmar, July 1, 2015.
- "Climate Change and New York State". Testimony at NY State Senate session on climate change, Albany, NY, May 19<sup>th</sup>, 2015. (*invited*)
- "The Climate Science Context behind Transportation Sector Adaptation", Forum on Climate Adaptation, Resiliency, and Recovery for a Sustainable Metropolitan Transit Authority, New York, NY May 13, 2015. (*invited*)
- "Climate and Impact Briefing for the Energy Sector", North American Electrical Reliability Corporation, Washington, D.C, February 5, 2015.
- "Downscaled Climate Projections for New York City". Press Conference at NY City Hall, NY, NY, February 17<sup>th</sup> 2015.
- "Asia's High Mountain Regions from A Climatic Perspective", World Wildlife Fund Snow Leopard Project Meeting, Kathmandu, Nepal, January 31, 2015.
- "What do we Know? Establishing a Common Knowledge Base around Climate", Nathan Cummings Foundation, New York, NY, September 21, 2014. (*invited*)
- "Managing Climate Risks in the Northeast". Environmental and Energy Study Institute Briefing at U.S. Senate, Washington, D.C, July 25<sup>th</sup> 2014. (*invited*)
- "Hurricane Sandy in New York City: Lessons Learned and the Way Forward". American Museum of Natural History, July 1, 2014, New York, NY. (invited)
- "Regional Impacts of Climate Change: A Summary of National Climate Assessment Findings". White House Press Conference Accompanying the Release of the 2013 National Climate Assessment, Washington, D.C, May 6<sup>th</sup>, 2014. (*invited*)

"Urban Vulnerability Assessment for the Health and Infrastructure Sectors", NASA National Climate Assessment Meeting, Washington, D.C, April 8, 2014.

"Climate Conversation", Northeast Sustainability Network Leadership meeting, Ernst and Young, NY, NY, March 18, 2014. (*invited*)

"Climate Change and Sustainable Cities" Side-Event: Sustainable Urban Development Challenges and Solutions to Address Climate Change, Permanent Mission of France to the United Nations, United Nations, NY, NY, January 9, 2014. (*invited*)

"Findings of the New York City Panel on Climate Change", City Hall, NY, NY, December 18, 2013.

"Strengths and Limitations of Climate Model-Based Approaches to Hazard Assessment", NOAA RISA Annual Meeting, La Jolla, CA, December 5, 2013.

"Sea Level Rise Tools", Climate Science for Climate Policy & Climate Policy for Climate Science Event, U.S. Department of State, Washington, D.C, May 14<sup>th</sup>, 2013. (*invited*)

"Prepared remarks to the Senate Democratic Steering and Outreach Committee", U.S. Senate, Washington, D.C, April 24, 2013. (*invited*)

New York City Panel on Climate Change, Climate Information, New York State Public Services Commission Meeting, NY, NY, March 20, 2013.

"Sea Level Rise and Coastal Flooding Impacts on the Marshall Islands", Columbia University Law School Special Event, NY, NY, February 13, 2013.

"National Climate Assessment (NCA) Northeast Region Draft Findings", NCA Northeast Town Hall Meeting, Syracuse, NY, January 23, 2013.

"Climate Science Update in advance of the 5<sup>th</sup> IPCC Report", NOAA-RISA Annual Meeting, San Diego, CA, January 15, 2013.

"Climate Science Update for Adaptation in New York State", Norrie Point, NY, September 20, 2012. (*invited*)

"Climate Change and Energy Systems", Energy Network Summit, U.S. Military Academy, West Point, NY, August 27, 2012. (*invited*)

"Advanced Methods for Participatory Scenario Planning: New York City Case Study, National Park Service, Fort Collins, CO, June 19, 2012. (*invited*)

"Research Prioritization for Least Developed Countries Policymakers", Programme on Vulnerability, Impacts and Adaptation, Bonn, Germany, May 22, 2012.

"Climate Science for Adaptation Planning", NASA Resilience and Adaptation Workshop, Johnson Space Center and Houston/Galveston Region, Houston, TX, March 6, 2012.

- "Impact of Climate Variability and Change on the Region's Infrastructure" After the Flood: A New York City Bar Event, NY, NY, February 27, 2012. (*invited*)
- "Regional Climate Change and the Langley Research Center", NASA Resilience and Adaptation Workshop, Hampton, VA September 27, 2011.
- "Climate Projections for the Eastern U.S.", Inland Impacts of Climate Change in the Northeast, Cornell University, Ithaca, NY, August 3, 2011.
- "Cross-Sector Climate Impacts and Adaptation Strategies in the New York City Water and Infrastructure-Shed", Climate Information for Managing Risks (CIMR) Symposium, May 26, 2011, Orlando, FL. (*invited*)
- "Societal and Economic Indicators for the National Climate Assessment: Perspectives from the Northeast U.S.", National Climate Assessment Workshop on Societal Indicators, Washington D.C, April 28, 2011. (*invited*)
- "How will Global Climate Change Manifest itself at Regional And Local Scales?" and "the Regional Climate Change Assessment Process", NASA Resilience and Adaptation Workshop for the NASA Ames Research Center and the Silicon Valley, Mountainview, CA, February 1-4, 2011.
- "Information, Data, and Adaptation Tools for the Water and Wastewater Sectors" Climate Change and Water Working Group Workshop, Boulder, CO, November 9, 2010.
- "Applying Regional Climate Models at Columbia University CCSR: Current Activities and Future Needs" Northeast Regional Climate Modeling Workshop, University of Massachusetts, Amherst, MA, October 8, 2010.
- "Regional Climate Change and the Space Coast", "Case Studies in Adaptation Assessment", and "Indicators and Monitoring Systems", NASA Resilience and Adaptation Workshop for the Space Coast, Cocoa Beach, FL, May 18-20, 2010.
- "Mainstreaming Climate Change Adaptation", Lagos State Summit on Climate Change, Lagos, Nigeria, May 5, 2010. (*invited*)
- "Climate Adaptation", NASA Master Planning Workshop, New Orleans, LA, April 6, 2010. (*invited*)
- "Climate Change, Impacts, and Adaptation in Kentucky", Regional Climate Change Forum, Lexington, KT, December 8, 2009. (*invited*)
- "Climate Change Impacts and Adaptation Efforts in New York City", Climate Change and Brazilian Megacities, FAPESP, Sao Paulo, Brazil, July 20, 2009. (invited)
- "Climate Change and the Real Estate Industry", Garrison Institute, Garrison, NY, May 27, 2009. (invited)

- "New York City Panel on Climate Change: Climate Risk Information", Connecticut Climate Change: Adaptation Subcommittee, Hartford, CT, March 13, 2009. (*invited*)
- "Modeling of Climate Variability and Climate Change for Impact and Adaptation", National Parks Service Earth to Sky III: Interpreting Climate Change, Harpers Ferry, WV, January 26, 2009. (invited)
- "Climate Risk Frameworks, Downscaling, and Adaptation", U.S. D.O.D. SERDP Interagency Forum on Climate Change Impacts and Adaptations, Washington, D.C, December 5, 2008. (*invited*)
- "Adaptation in Central America" and "Climate Downscaling Methods for Central America", Workshop on Climate Change in Central America, Turrialba, Costa Rica, September 4, 2008. (invited)
- "Climate Change Adaptation in the New York Metropolitan Area", Green Cities Workshop on "Reducing Vulnerability to Climate Change Impacts and Related Natural Disasters in Asia" hosted by UN/International Strategy for Disaster Reduction (UN/ISDR), the World Bank, the Global Facility for Disaster Reduction and Recovery (GFDRR) and the United Cities and Local Governments Asia Pacific Regional Section, Pattaya, Thailand, July 14, 2008. (*invited*)
- "Application of NASA Models and Missions to Agricultural Decision Support", Institute of Electrical and Electronics Eng./Intl. Geosci. & Remote Sens. Symp., Boston, MA, July 10, 2008.
- "Climate Change and NASA Facilities: Impacts and Adaptation", Joint Services Environmental Management Training Conference and Exposition, Denver, CO, May 8, 2008.
- "From Global to Regional: Perspectives on Ecosystem Impacts of Climate Change", Keynote address for Partnership for the Delaware Estuary—Climate Change Workshop, Philadelphia Academy of Natural Sciences, Philadelphia, PA, May 6, 2008. (*invited*)
- "Caring after the Storm: The Impact of Climate Change on Children", the United Nations, NY, NY, September 5, 2007. (*invited*)

## SELECT MEDIA APPEARANCES

### Television

Showtime "Years of Living Dangerously", PBS Newshour (multiple), PBS NOVA "Inside the Megastorm", ABC News 20/20, CNN New Day (multiple), CNN International (multiple), CNN Asia, MSNBC All-in with Chris Hayes (multiple), MSNBC Up with Steve Kornacki (multiple), MSNBC Alex Witt Show (multiple), NPR Democracy Now, StarTalk with Neil Degrasse Tyson, Al Jazeera Nightly News, PBS-Thirteen Metrofocus, CBS News, Fox 5 News, WCBS-NYC Nightly News, WPIX-NYC Nightly News, New York 1 Inside City Hall, CBC Nightly News (Canada), Huffington Post Live (multiple), Planetopia (Germany), TV Arte (France), CCTV (China), Vice News, etc.

### Radio

NPR Science Friday, NPR Fresh Air, NPR On Point, NPR Morning Edition, Voice of America, StarTalk Radio with Bill Nye, Sirius-XM, BBC (UK), CBC (Canada), etc.

# **Print/Internet**

New York Times, Wall Street Journal, Washington Post, Los Angeles Times, Chicago Tribune, Christian Science Monitor, Associated Press, Newsweek, Fortune Magazine, MSNBC, Nature, Barrons, Sydney Herald (Australia), Vancouver Sun (Canada), Sueddeutsche Zeitung GmbH (Germany), ClimateWire Village Voice, AM New York, Inside Climate News, Columbia Magazine, etc.