# Curriculum Vitae - Jonathan D. Woodruff

Department of Geosciences · University of Massachusetts · Amherst, MA 01003 Phone 413.577.3831 · woodruff@umass.edu

<b>Education</b>	
2004-09 1997-99	Ph.D., Geology & Geophysics, MIT/WHOI Joint Program M.S., Applied Ocean Physics & Engineering, MIT/WHOI Joint Program
1992-96	B.S.C.E., Civil & Environmental Engineering, Tufts University B.S., Environmental Studies, Tufts University
<u>Professional</u>	Experience
2023-present	Leadership Circle, Center for Braiding Indigenous Knowledges and Science, Amb

20	023-present	Leadership Circle, Center for Braiding Indigenous Knowledges and Science, Amherst, MA
20	021-present	Co-Director, Northeast Climate Adaptation Science Center, Amherst, MA
20	021-present	Professor, University of Massachusetts, Amherst, MA
20	017-2021	Summer Visiting Scholar, Univ. of Maine, Darling Marine Center, Walpole, ME
20	015-2021	Associate Professor, University of Massachusetts, Amherst, MA
20	016	Fulbright Scholar, Kyushu University, Fukuoka, Japan
20	009-2015	Assistant Professor, University of Massachusetts, Amherst, MA
20	004-2008	Graduate Student, Woods Hole Oceanographic Institution, Woods Hole, MA
20	002-2004	Physics and Oceanography Teacher, Newburyport High School, Newburyport, MA
20	000-2002	Coastal Engineer, Woods Hole Group Inc., Falmouth, MA

# 1996-2000 Research Associate, Woods Hole Oceanographic Institution, MA

1995-1996 Field Technician, U.S. Geological Survey, Augusta, ME

# Research Expertise

Sediment and Coastal Dynamics, Flood Hazards, Tidal Wetlands, Post-Glaciated Shorelines, Estuaries

# Grants, Fellowships and Awards

2023-2028	(Co-PI) National Science Foundation (NSF) Science and Technology Center (STC), Center for Braiding Indigenous Knowledges and Science, \$29,781,415
2021-2025	(Lead-PI) Department of the Interior (DOI), Host of the Northeast Climate Adaptation and Science Center, \$4,499,998-UMass
2022-2025	(Co-PI) U.S. Geological Survey (USGS), Effects of urban coastal armoring on salt marsh sediment supplies and resilience to climate change, \$399,843.53-UMass
2022-2023	(Lead-PI) USGS/FWS/DOE, Science to Support Marsh Conservation and Management Decisions in the Northeastern United States, \$240,173.35-UMass
2020-2023	(Co-PI) U.S. Geological Survey (USGS), Linking unvegetated to vegetated marsh ratio (UVVR) to causes of marsh change, $$176,609$ -UMass
2022-2024	(Co-PI) USGS Northeast Climate Adaptation Science Center: Climate Fellows Research Initiative, \$179,749 - UMass
2020-2022	(Co-PI) U.S. Dept of Agriculture (USDA), Natural Resources Conservation Service (NRCS) Regional Scaling of Blue Carbon Measurements with Lidar-derived Geomorphic Tools, \$289,566-UMass

2020-2022	(Lead-PI) U.S. Geological Survey (USGS), Sedimentary Controls on Tidal Marsh Integrity and Resilience, \$238,036-UMass
2019-2021	(Senior Personnel) National Science Foundation (NSF), NNA Track [2]: Developing Arctic Village Resilience to Future Water Cycle, River Systems, and Coastal Change, \$246,802-UMass
2016-2020	(Co-PI) National Oceanic and Atmospheric Administration, National Estuarine Research Reserve System Science Collaborative, Quantifying effects of dam removal on sediment transport and wetland sustainability in the Hudson River estuary \$714,000 (\$354,000-UMass)
2016-2020	(Co-PI) National Science Foundation, Geomorphology and Landuse Dynamics, <i>Collaborative Research: Tsunamis and Tropical Storms, Sediment Dynamics and Products</i> , \$510,000 (\$179,000-UMass)
2017-2019	(Lead-PI) National Science Foundation (NSF), Earth Sciences, Instrument and Facilities Grant, Acquisition of an Automated Laser Diffraction Particle Size Analyzer, \$89,810-UMass
2016-2019	(advisor-PI) National Aeronautics and Space Administrations (NASA), Modeling the Relative Impacts of Changing Storm Climatology, Sea Level Rise, and Shoreline Evolution on Extreme Flooding: A Boston Case Study, - \$120,000-UMass
2014-2019	(co-PI) Dept. of the Interior, Bureau of Ocean Energy Management (DOI/BOEM): Hurricane Sandy Coastal Recovery and Resiliency Resource Fund, Sand Resource Needs Assessment on Critical Beaches along the Post-Glaciated Coastlines of Massachusetts, \$400,000-UMass
2012-2016	(Lead-PI) National Science Foundation, Geomorphology and Landuse Dynamics, Collaborative Research: Sediment Transport and Storage in Tidal Floodplain Waterbodies, \$333,000 (UMass-\$237,233)
2015-2016	(Co-PI) Dalio Explorer Fund, Northeast Hurricane Research, \$50,000-UMass (WHOI subcontract)
2013-2014	(Lead-PI) Hudson River Foundation, How unique was Hurricane Sandy? Reconstructing a millennial-scale flooding history of New York Harbor from costal pond sediments, \$16,000-UMass
2012-2013	(Lead-PI) Hudson River Foundation, Expedited Proposal: Sedimentary Signatures of Hurricane Sandy, \$9,966
2012-2013	(Co-PI) Keck Geology Consortium, Evaluating Extreme Weather Response in the Connecticut River Floodplain Environment, \$58,750
2012-2013	(Lead-PI) Springfield Water & Sewer, Sedimentary Analyses and Bathymetric Mapping of Cobble Mountain Reservoir, \$12,812
2011-2012	(Lead-PI) National Science Foundation, Geomorphology and Landuse Dynamics (RAPID), Characterizing floodplain deposition from Hurricane Irene along the Lower Connecticut River, \$21,493
2011-2012	(Lead-PI) Risk Prediction Initiative, Bermuda Institute of Ocean Sciences, Reconstructing past typhoon occurrences for the southern coast of Japan using coastal sediments, \$49,662
2011-2012	(Lead-PI) Water Resources Institutes Program, United States Geological Survey, Assessing human impacts on sediment and contaminant trapping within Oxbow Lake, MA, \$5,000

2010-2011 (Co-PI) National Science Foundation, Earth Sciences, Instrument and Facilities Grant, Purchase of an X-Ray Core Scanner for Research in Paleoclimatology and Global Change, \$388,976 (Co-PI) National Science Foundation, Earth Sciences, Instrument and Facilities Grant, 2010-2011 Upgrade of Department of Geosciences Digital Mapping and Modeling Laboratory at the Univ. of Massachusetts Amherst, \$74,999 (Lead-PI) National Geographic Society, Committee for Research and Exploration, 2010-2011 Reconstructing the 13th Century Kamikaze Typhoons from Coastal Overwash Deposits, \$17,866 2010-2011 (Lead-PI) UMass School for Marine Science Grant, Hydrographic and Numerical Modeling Assessment for Sediment and Contaminant Trapping in Floodplain Tidal Pond, \$12,944 2009-2011 (Co-PI) National Science Foundation, Paleo Perspectives on Climate Change, Collaborative Research: Decadal Scale Patterns in Hurricane Activity Over the Last Several Millennia, \$310,610 (\$57,960-UMass) 2009-2010 (Lead-PI) Faculty Research Grant/Healey Endowment Grant, Sediment and Pollution Storage in the Lower Connecticut River and Estuary, \$13,912

#### **Publications:**

#### 2023:

- 51. Yellen, B., **Woodruff, J.D.,** Baranes, H.E., Engelhart, S.E., Geyer, R. and Randall, N. (2022), Salt Marsh Response to Inlet Switch-Induced Increases in Tidal Inundation. Journal of Geophysical Research: Earth Surface, <a href="http://doi.org/10.1029/2022IF006815">http://doi.org/10.1029/2022IF006815</a>
- 50. Aro, C., Kashima, K., Baranes, H., Ladlow, C., Katsuki, K., **Woodruff, J.D.** (2023), Fossil diatom assemblage changes due to paleoenvironment change, tsunami, and typhoon in southern Japan, *Island Arr*, https://doi-org.silk.library.umass.edu/10.1111/jar.12476

#### 2022:

- 49. **(Student Author)** McKeon, K., **Woodruff, J.D.,** Yellen, B., Ralston, D. Fernald, S., (2022) Invasive water chestnut hinders tidal wetland development, *Earth Surface Processes and Landforms*, <a href="https://doi.org/10.1002/esp.5323">https://doi.org/10.1002/esp.5323</a>
- 48. **(Student Author)** Baranes, H.E., **Woodruff, J.D.,** Geyer, W.R., Yellen, B.C., Richardson, J.B., Griswold, F. (2022) Sources, Mechanisms, and Timescales of Sediment Delivery to a New England Salt Marsh, *Journal of Geophysical Research: Earth Surface*, <a href="https://doi.org/10.1029/2021JF006478">https://doi.org/10.1029/2021JF006478</a>
- 47. Cooke, M. L., Baranes, H., Castañeda, I. S., **Woodruff, J. D.,** and Boutt, D. F. (2022), After GRExit: Reducing bias in geoscience graduate admissions, *Eos*, 103, https://doi.org/10.1029/2022EO220285
- 46. Winkler, T.S., van Hengstrum, P.J., Donnelly, J.P., Wallace, E.J., D'Entremont, N.D., Hawkes, A.D., Maio, C.V., Sullivan, R.M., **Woodruff, J.D.**, (2022) Oceanic passage of hurricanes across Cay Sal Bank in The Bahamas over the last 530 years, *Marine Geology*, 106653, https://doi.org/10.1016/j.margeo.2021.106653

#### 2021:

- 45. **Woodruff, J.D.,** Venti, N., Mabee, S., DiTroia, A. and Beach, D., (2021). Grain size and beach face slope on paraglacial beaches of New England, USA. *Marine Geology*, p.106527.
- 44. Yellen, B., **Woodruff, J.D.**, Ladlow, C., Ralston, D.K., Fernald, S. and Lau, W., (2021). Rapid tidal marsh development in anthropogenic backwaters. *Earth Surface Processes and Landforms*. 46:5 pp. 54-572, DOI: 10.1002/esp.5045
- 43. Ralston, D.K., Yellen, B. and **Woodruff, J.D.**, (2021). Watershed Suspended Sediment Supply and Potential Impacts of Dam Removals for an Estuary. *Estuaries and Coasts*, 44(5), pp.1195-1215.
- 42. Castagno, K.A., Donnelly, J.P. and **Woodruff, J.D.,** (2021). Grain-Size Analysis of Hurricane-Induced Event Beds in a New England Salt Marsh, Massachusetts, USA. *Journal of Coastal Research*, 37(2), pp.326-335.
- 41. Castagno, K.A., Donnelly, J.P., and **Woodruff, J.D.** (2021). Storm processes and salt marsh dynamics, in *Marshes: Function, Dynamics and Stresses*, Eds. Fitzgerald, D. and Hughes, Z., Cambridge Univ. Press. IBSN: 9781316888933
- 40. Wallace, E.J., Donnelly, J.P., van Hengstum, P.J., Winkler, T.S., Dizon, C., LaBella, A., Lopez, I., D'Entremont, N.E., Sullivan, R.M., **Woodruff, J.D.**, Hawkes, A.D., Maio, C., (2021), Regional shifts in paleohurricane activity over the last 1500 years derived from blue hole sediments offshore of Middle Caicos Island, *Quaternary Science Reviews*, 268, p.107126, https://doi.org/10.1016/j.quascirev.2021.107126
- 39. Wallace, E.J., Donnelly, J.P., van Hengstum, P.J., Winkler, T.S., McKeon, K., MacDonald, D., d'Entremont, N.E., Sullivan, R.M., **Woodruff, J.D.,** Hawkes, A.D. and Maio, C., (2021). 1,050 years of hurricane strikes on Long Island in The Bahamas. *Paleoceanography and Paleoclimatology*, 36(3), p.e2020PA004156.

# 2020:

- 38. **(Student Author)** Baranes, H.E., **Woodruff, J.D.**, Talke, S.A., Kopp, R.E., Ray, R.D. and DeConto, R.M., 2020. Tidally driven interannual variation in extreme sea level frequencies in the Gulf of Maine. *Journal of Geophysical Research: Oceans*, 125(10), p.e2020JC016291.
- 37. Ralston, D.K., Yellen, B., **Woodruff, J.D.** and Fernald, S., (2020). Turbidity hysteresis in an estuary and tidal river following an extreme discharge event. *Geophysical Research Letters*, 47(15), p.e2020GL088005.
- 36. Rodysill, J.R., Donnelly, J.P., Sullivan, R., Lane, P.D., Toomey, M., **Woodruff, J.D.**, Hawkes, A.D., MacDonald, D., d'Entremont, N., McKeon, K. and Wallace, E., (2020). Historically unprecedented Northern Gulf of Mexico hurricane activity from 650 to 1250 CE. *Scientific reports*, 10(1), pp.1-17.
- 35. Wallace, D. and **Woodruff, J.D.**, (2020) Experimental and Numerical Models of Fine Sediment Transport by Tsunamis, in "Geological Records of Tsunamis and other Extreme Waves, 1st Edition", Editors Brill, D., Engel, M., Garrett, E., May, M., & Pilarczyk, J., pp 491-509, Elsevier, ISBN: 978-0-12-815686-5
- 34. Dow, S., Snyder, N.P., Ouimet, W.B., Martini, A.M., Yellen, B., **Woodruff, J.D.** and Newton, R.M. (2020), Estimating the timescale of fluvial response to anthropogenic disturbance using two generations of dams on the South River, Massachusetts, USA, *Earth Surface Processes and Landforms*, doi: 10.1002/esp.4886

- 33. Contributing Author, (2019), Intergovernmental Panel on Climate Change (IPCC), Special Report on the Ocean and Cryosphere in a Changing Climate: Chapter 4 on Sea Level Rise and Implications for Low Lying Islands, Coasts and Communities, Cambridge University Press
- 32. **(Student Author)** Ladlow, C., **Woodruff, J.D.**, Cook, T.L., Baranes, H., and Kanamaru, K. (2019), A fluvially derived flood deposit dating to the Kamikaze typhoons near Nagasaki, Japan, *Natural Hazards*, doi: 10.1007/s11069-019-03777-z

#### 2018

- 31. **Woodruff, J.D.,** (2018), Future of tidal wetlands depends on coastal management (News&Views). *Nature,* 561(7722):183-185: doi: 10.1038/d41586-018-06190-x
- 30. Talke, S.A., Kemp, A.C., and **Woodruff, J.D.**, (2018), Relative Sea Level, Tides, and Extreme Water Levels in Boston Harbor From 1825 to 2018. *Journal of Geophysical Research: Oceans*, DOI: 10.1029/2017JC013645
- 29. **(Student Author)** Baranes, H., **Woodruff, J.D.**, Loveless, J.P., Hyodo, M. (2018), Interseismic Coupling-Based Earthquake and Tsunami Scenarios for the Nankai Trough. *Geophysical Research Letters*, 45(7): pp. 2986-1994

#### 2017

28. **(Student Author)** Yellen, B., **Woodruff, J.D.,** Ralston, D., MacDonald, D., and Jones, D., (2017), Salt wedge dynamics lead to enhanced sediment trapping within side embayments in high-energy estuaries. *Journal of Geophysical Research – Oceans*, 122(3): pp. 2226-2242, DOI: 10.1002/2016JC012595

#### 2016

- 27. **(Student Author)** Baranes, H., **Woodruff, J.D.**, Wallace, D., Kanamaru, K., and Cook, T., (2016), Sedimentological record of the C.E. 1707 Hoei Tsunami from the Bungo Channel, southwestern Japan. *Natural Hazards*, DOI 10.1007/s11069-016-2498-3
- 26. **(Student Author)** Brandon, C., **Woodruff, J.D.,** Donnelly, J.P., and Orton, P., (2016), Increased overwash by storms following European disturbance of oyster beds in New York Harbor, *Earth Surface Processes and Landforms*, DOI: 10.1002/esp.3931
- 25. (Student Author) Yellen, B., Woodruff, J.D., Cook, T., Newton, B., (2016), Historically unprecedented erosion from tropical storm Irene due to high antecedent precipitation. *Earth Surface Processes and Landforms* DOI:10.1002/2015GL064436
- 24. Toomey, M., **Woodruff, J.D.,** Donnelly, J.P., Aston, A., Perron, J. T., (2016), Seismic evidence of glacial age river incision into the Tahaa barrier reef, French Polynesia. *Marine Geology*, DOI:10.1016/j.margeo.2016.04.008

## 2015

23. Woodruff, J.D., Kanamaru, K., Kundu, S, and Cook, T., (2015), Depositional Evidence for the Kamikaze Typhoons and Links to Changes in Typhoon Climatology. *Geology*, v. 43 (1), p. 91-94
-Geology Feature Article, Highlighted in Science Magazine

- 22. Cook, T., Yellen, B., **Woodruff, J.D.,** Miller, D., (2015), Contrasting Human versus Climate Impacts on Erosion. *Geophysical Research Letters*, v. 42, DOI:10.1002/2015GL064436
- 21. Donnelly, J.P., Hawkes, A.D., Lane, P., MacDonald, D., Shuman, B. N., Toomey, M.R., van Hengstum, P. J. and **Woodruff, J.D.,** (2015), Climate Forcing of Unprecedented Intense-Hurricane Activity in the Last 2,000 Years, *Earth's Future*, v. 3, pp. 49-65

#### 2014

- 20. **(Student Author)** Brandon, C., **Woodruff, J.D.**, and Donnelly, J.P., (2014, Dec. 8), How Unique was Hurricane Sandy? Sedimentary Reconstructions of Extreme Flooding from New York Harbor. *Scientific Reports*, v. 4 DOI: 10.1038/srep07366
- 19. **(Student Author)** Yellen, B., **Woodruff, J.D.**, Kratz, L.N., Mabee, S.B., Morrison, J., Martini, A.M., (2014, Dec. 1), Source, Conveyance and Fate of Suspended Sediments Following Hurricane Irene. New England, USA. *Geomorphology*, v. 226 (1), p. 124-134
- 18. Wallace, D., **Woodruff, J.D.**, Anderson, J., and Donnelly, J.P., (2014), Palaeohurricane reconstructions along the Gulf of Mexico, Caribbean Sea, and western Atlantic Ocean margins. *Geological Society London, Special Publications*, v. 388, DOI: 10.1144/SP388.12
- 17. Donnelly, J.P., Anderson, J.B., Hawkes, A.D., Otvos, E.G., Toomey, M.R., van Hengstum, P.J., Wallace, D.J., **Woodruff, J.D.**, (2014), Comment: The geological legacy of Hurricane Irene: Implications for the fidelity of the paleo-storm record, *GSA Today*, p. e28-e29, DOI: 10.1130/GSATG205C.1

#### 2013

- 16. **Woodruff, J.D.**, Irish, J., and Camargo, S., (2013), Coastal flooding by tropical cyclones and sea-level rise. *Nature*, v. 504, p. 44-52
- 15. **(Student Author)** Brandon, C., **Woodruff, J.D.**, Lane, P. and Donnelly, J.P., (2013), Constraining flooding conditions for prehistoric hurricanes from resultant deposits preserved in Florida sinkholes. *Geochemistry, Geophysics, Geosystems*, v. 14 (8), p. 2993-3008
- 14. Toomey, M.R., Donnelly, J.P., **Woodruff, J.D.**, (2013), Reconstructing mid-late Holocene cyclone variability in the Central Pacific using sedimentary records from Tahaa, French Polynesia. *Quaternary Science Reviews*, v. 77 (1), p. 181-189
- 13. **Woodruff, J.D.**, Martini, A.M., Naughton, T.N., Elzidani, E.Z., Kekacs, D., MacDonald, D., (2013), Off-river waterbodies on tidal rivers: Human impact on rates of infilling and the accumulation of pollutants. *Geomorphology*, v. 184, p. 38-50

#### 2012

12. **Woodruff, J.D.**, Sriver, R.L., Lund, D.C., (2012), Tropical cyclone activity and western North Atlantic stratification over the last millennia: A comparative review with viable connections. *Journal of Quaternary Science*, v. 27 (4), p. 337-343

#### 2011

11. Lane, P., Donnelly, J.P., **Woodruff, J.D.**, Hawkes, A.D., (2011), A decadally-resolved paleohurricane record archived in the late Holocene sediments of a Florida sinkhole. *Marine Geology*, v. 179, p. 105-119

10. Boldt, K.V., Lane, P, **Woodruff, J.D.**, and Donnelly, J.P., (2010), Calibrating a sedimentary record of overwash from Southeastern New England using modeled historic hurricane surges. *Marine Geology*, v. 275: 127-139

#### 2009

- 9. Mann, M.E., **Woodruff, J.D.**, Donnelly, J.P., and Zhang, Z., (2009), Atlantic hurricanes and climate over the past 1,500 years. *Nature*, v. 460, p. 880-883
- 8. **Woodruff, J.D.**, Donnelly, J.P., and Okusu, A., (2009), Exploring typhoon variability over the mid-to-late Holocene: evidence of extreme coastal flooding from Kamikoshiki, Japan. *Quaternary Science Reviews.* v. 28, p. 1774-1785
- 7. Done, J., Hu, H., Farmer, E.C., Yin, J., Bates, S., Frappier, A.B., Halkides, D.J. Kilbourne, K.H., Sriver, H., **Woodruff, J.D.**, (2009), The Thermohaline Circulation and Tropical Cyclones in Past, Present, and Future Climates. *Bulletin of the American Meteorological Society*, v. 90(7), p. 1015-1017

#### 2008

- 6. Woodruff, J.D., Donnelly, J.P. and Emanuel, K., (2008), Assessing sedimentary records of paleo-hurricane activity using modeled hurricane climatology. *Geochemistry, Geophysics, Geosystems*, v. 9 (9), p. 1-12
- 5. **Woodruff, J.D.**, Donnelly, J.P., Mohrig, D. and Geyer, W.R., (2008), Reconstructing relative flooding intensities responsible for hurricane-induced deposits from Laguna Playa Grande, Vieques, Puerto Rico. *Geology*, v. 36, p. 391-394

#### 2007

4. Donnelly, J.P. and **Woodruff, J.D.**, (2007), Intense hurricane activity over the past 5,000 years controlled by El Nino and the West African monsoon. *Nature*, v. 447, p. 465-468.

## Pre-Ph.D.

- 3. Woodruff, J.D., Geyer, W.R., Sommerfield, C.K., and Driscoll, N.W., (2001), Seasonal variation of sediment deposition in the Hudson River estuary. *Marine Geology*, v. 179, p. 105-119.
- 2. Geyer, W.R., **Woodruff, J.D.**, and Traykovski, P., (2001), Sediment transport and trapping in the Hudson River estuary. *Estuaries*, v. 24, p. 670-679.
- 1. Barton, D.A., **Woodruff, J.D.**, Bousquet, T.M., Purrish, A.M., (1997). Treatment system response to transient AOX (Adsorbable Organic Halogen) loadings. *Water Science and Technology*, vol 35(2-3) pp. 85-91

# Invited Academic Seminars and Keynote Talks (since 2009)

41. United South & Eastern Tribes Climate Resilience Camp, Virtual	July, 2021
40. Geological Society of America, Pardee Symposium, Virtual (Keynote)	Nov. 2020
39. Lamont-Doherty Earth Observatory, Columbia Univ., NY	Apr. 2019
38. University of Bergen, Dept. of Geosciences, Norway	Mar. 2019
37. University of Rhode Island, Coastal Resources Center, Narragansett, RI	Dec. 2018
36: Northeastern University, Marine Science Center, Nahant, MA	Nov. 2018
36: Virginia Academy of Science, Engineering, and Medicine, Norfolk, VI (Keynote)	Nov. 2018
35. Darling Marine Center, Univ. of Maine, Walpole, ME	July 2018

34. Roger Tory Peterson Estuary Center, Old Lyme, CT	Apr. 2018 Feb. 2018	
33. Bates College, Lewiston, ME		
32. Asian Association for Quaternary Research, Jeju Island, S. Korea (Keynote)	Sept. 2017	
31. Darling Marine Center, Univ. of Maine, Walpole, ME	Aug. 2017	
30. College of the Atlantic, Mount Desert Island, ME	May 2017	
29. Virginia Institute of Marine Science (VIMS), Gloucester Point, VA	Apr. 2017	
28. East Carolina University/Université de Bordeaux, France (webinar)	Feb. 2017	
27. Korean Institute of Geoscience and Mineral Resources (KIGAM), Daejeon, S. Korea	Nov. 2016	
26. Japanese Agency of Marine Science and Technology (JAMSTEC), Yokohama, Japan	Aug. 2016	
25. Geological Survey of Japan, Tsukuba, Japan	July 2016	
24. Kyushu University, Dept. of Earth and Planetary Sciences, Fukuoka, Japan	Mar. 2016	
23. Hudson River Foundation Board of Directors, New York City, NY, USA	July 2015	
22. MIT Endicott Center, Boston, MA, USA	Jun. 2015	
21. Tufts University, Department of Civil and Env. Engineering, Medford, MA, USA	Apr. 2015	
20. School of Marine and Atm. Sciences, Stony Brook University, NY, USA	Nov. 2014	
19. Ocean and Coastal Resource Consortium, Boston, MA, USA	Oct. 2014	
18. Virginia Polytechnic Institute and State University, Blacksburg, VA, USA	Sept. 2014	
17. Northeastern Climate Center, Amherst, MA, USA	Feb. 2014	
16. Environmental & Water Resource Seminar Series, 5-College Consortium, MA, USA	Feb. 2014	
15. Hudson River Foundation, New York City, NY, USA	Dec. 2013	
14. University of Rhode Island, Graduate School of Oceanography, RI, USA		
13. University of Maine, School of Earth and Climate Science, ME, USA		
12. Bermuda Institute of Ocean Science, Risk Prediction Initiative, Bermuda	Oct. 2012	
11. Cary Institute of Ecosystem Studies, Hudson River Foundation, NY, USA	Sept. 2012	
10. University of New Hampshire, Department of Earth Sciences, NH, USA	Apr. 2012	
9. Southern Connecticut State University, Earth Science Department, CT, USA	Apr. 2012	
8. UMass-Dartmouth, School of Marine Science and Technology, MA, USA	Mar. 2012	
7. Hudson River Foundation, NY, USA	Mar. 2012	
6. Wesleyan University, Department of Earth and Environmental Sciences, CT, USA	June 2011	
5. UConn, Department of Marine Sciences, Avery Point, CT, USA	Feb. 2011	
4. University of Connecticut, Department of Geosciences, CT, USA	Oct. 2010	
3. Woods Hole Oceanographic Institution, Coastal Ocean Fluid Dynamics Lab., MA, U	JSA July 2010	
2. UMass-Dartmouth, School of Marine Science and Technology, MA, USA	Sept. 2009	
1. Pennsylvania State University, Department of Geosciences, PE, USA	Feb. 2009	
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# Published Abstracts (since 2009)

- 115. Woodruff, J., Autery, M., Baranes, H., Cook, T., Griswold, F., Hansen, L. and Yellen, B. (Apr. 28, 2023) Controls on Sediment Delivery to New England Salt Marshes and Resulting Limits on Future Resilience. *European Geophysical Union Meeting*, Vienna, Austria, Abstract# EGU23-10238
- 114. Peck, E., Walker, J., Ackerman, K., Besterman, A., Carr, J., Cook, T. Correll., M., Woodruff, J. (Apr. 28, 2023) An assessment of salt marsh vulnerability & restoration potential in the Northeastern United States using physical and ecological indicators. *European Geophysical Union Meeting*, Vienna, Austria, Abstract# EGU23-8653
- 113. Autery, M., Woodruff, J., Johnson, B., Peck, E., Wicks, R., and Ward, J.. Assessing tidal salt marsh elevation along the coast of Maine, United States using unmanned aerial systems (UAS) and stable carbon isotopes. (Apr. 28, 2023) *European Geophysical Union Meeting*, Vienna, Austria, Abstract# EGU23-16093.
- 112. Hansen, L.; Cook, T., Woodruff, J.D.; Griswold, F.; Autery, M., (Mar. 17, 2023): Investigating the Sediment Dynamics of New England Salt Marsh Pools at Reid State Park, Maine, *Northeastern Geological Society of America Meeting*, Abstract# 13-4

- 111. Yellen, B., Kahl, K., Papal, A., Woodruff, J. (June 2, 2022) Outstanding Questions Regarding Sediment Supply to Northeast US Tidal Marshes, *New England Estuarine Research Society Annual Meeting*, Salem, MA.
- 110. Turek, B., Yellen, B., Yu, Q., Teng, W., Woodruff, J. (June 2, 2022) Spatial Variability of Soil Organic Carbon in Northeast Tidal Marshes Application of a Lidar and Remote Sensing-Based Model, *New England Estuarine Research Society Annual Meeting*, Salem, MA.
- 109. **(Student Author)** Griswold, F., **Woodruff, J.D.,** Yellen, B.C., Baranes, H., Cook, T., Autery, M., Hansen, L., Wenzcel, S., (Mar. 21, 2022) Sediment Sourcing and Accumulation on New England Salt Marshes, Paper No. T13-3-6, *Geological Society of America, Northeastern Regional Meeting*, Lancaster, PA
- 108. Turek, B., Teng, W., Yellen, B.C., Yu, Q., **Woodruff, J. D.**, (Mar. 20, 2022) Estimation of Tidal Marsh Blue Carbon Storage Using a LIDAR and Optical Remote Sensing Based Model, Paper No. T13-3-7, *Geological Society of America, Northeastern Regional Meeting*, Lancaster, PA
- 107. Hansen, L., Cook, T., **Woodruff, J.D.,** Griswold, F., Autery, M., (Mar. 21, 2022) Evaluating the Role of Pools in the Sediment Dynamics of a New England Salt Marsh, Paper No. T13-21-5, *Geological Society of America, Northeastern Regional Meeting,* Lancaster, PA
- 106. Autery, M., Cook, T., Woodruff, J. D., Yellen, B.C., Griswold, F.; Baranes, H., Hansen, L. (Mar. 21, 2022) Regional Variability of Accretion Rates in Northeastern USA Salt Marshes in Relation to Unvegetated to Vegetated Ratios (UVVR), Paper No. T13-21-6, Geological Society of America, Northeastern Regional Meeting, Lancaster, PA
- 105. **(Student Author)** Matos, P., **Woodruff, J.D.**, Yellen, B., and Griswold, F. (Dec. 14, 2021), Divergent mangrove responses to multiple human activities in Puerto Rico, Paper No. EP22C-05, *American Geophysical Union Fall Meeting*, New Orleans, LA
- 104. **(Student Author)** Baranes, H.E., Woodruff, J.D., Geyer, W.R., Yellen, B.C., Richardson, J.B. (Nov, 2021), Sources, mechanisms, and timescales of sediment delivery to a New England salt marsh, *Coastal Estuarine Research Federation Bi-Annual Conference*, virtual
- 103. **(Student Author)** McKeon, K., **Woodruff, J.D.,** Yellen, B., Ralston, D. Fernald, S., (Nov, 2021) Sedimentary Processes Influencing Divergent Wetland Evolution in the Hudson River Estuary, *Coastal Estuarine Research Federation Bi-Annual Conference*, virtual
- 102. Ajmani, A., Staudinger, M., **Woodruff, J.D.,** Holland, A.R., (Nov, 2021) Integrating Tribal perspectives on climate change into mainstream climate science education, *Coastal Estuarine Research Federation Bi-Annual Conference*, virtual
- 101. **(Student Author)** Griswold, F., Woodruff, J.D., Yellen, B., Matos-Llavona, P., McKeon, K., (Oct, 2021) Mangrove Integrity and Resulting Impacts of Hurricane Overwash, Paper No. 57-7, Geological Society of America Fall Meeting, Portland, OR.
- 100. **Woodruff, J.D.**, Mabee, S.B., Venti, N., DiTroia, A., Beach, D., (Dec. 16, 2020), Relationship of Grain Size to Slope in Bimodally Sourced Beaches, Paper No. EP066-08, *American Geophysical Union Fall Meeting*, Virtual
- 99. **(Student Author)** Griswold, F., **Woodruff, J.D.**, and Matos-Llavona, P.I., (Dec. 16, 2020), Mangrove Mortality after Hurricane Maria, Paper No. EP061-0017, *American Geophysical Union Fall Meeting*, Virtual

- 98. (Student Author) McKeon, K., Woodruff, J.D., Yellen, B., and Fernald, S., (Dec. 16, 2020), Mechanisms of anthropogenic tidal marsh development in the Hudson River, Paper No. EP061-0018, *American Geophysical Union Fall Meeting*, Virtual
- 97. **(Student Author)** Matos-Llavona, P.I., Yellen, B., and **Woodruff, J.D.**, (Dec. 10, 2020), Reservoir Infilling Following Hurricane María in Puerto Rico Relative to Background Rates of Deposition, Paper No. EP027-05, *American Geophysical Union Fall Meeting*, Virtual
- 96. Winkler, T.S., van Hengstrum, P.J., Donnelly, J.P., Wallace, E.J., Maio, C., Albury, N.A., D'Entremont, N.E., Hawkes, A., MacDonald, D., Sullivan, R.M., **Woodruff, J.D.**, (Dec. 15, 2020), Near-annually resolved records of northern Bahamian hurricane activity during the Common Era: Emerging patterns and implications, Paper No. U017-10, *American Geophysical Union Fall Meeting*, Virtual
- 95. Wallace, E.J., Donnelly, J.P., van Hengstrum, P.J., Winkler, T.S., McKeon, K., MacDonald, D., d'Entremont, N.E., Sullivan, R.M., **Woodruff, J.D.**, Hawkes, A.D., Maio, C.,., (Dec. 11, 2020), Regional shifts in paleohurricane activity over the past 1500 years reconstructed from blue hole sediment records in the Bahama Archipelago, Paper No. PP033-07, *American Geophysical Union Fall Meeting*, Virtual
- 94. **Woodruff, J.D. (Keynote)**, Yellen, B., Ralston, D.K., and Brandon, C.M., (Oct. 29, 2020), Human Impacts to Urbanized Estuaries, Pardee Keynote Lecture, Paper No. 197-6, *Geological Society of America Annual Meeting*, Virtual
- 93. **(Student Author)** Baranes, H., **Woodruff, J. D.**, Talke, Kopp, R. E., S. A., Ray, R. D., & DeConto, R. M. (Feb 21, 2020), Tidally-driven interannual variation in extreme sea level probabilities in the Gulf of Maine, Paper No. CP52A-08, AGU Ocean Sciences, San Diego, CA.
- 92. (Student Author) Ladlow, C., Yellen, B., Woodruff, J.D., Lau, W., Premo, B. and Ralston, D.K., (Dec. 12, 2019), Rapid Tidal Marsh Development in Response to Anthropogenic Shoreline Modifications Hudson River Estuary. Paper No. PP42A-05, American Geophysical Union Fall Meeting, San Francisco, CA
- 91. **(Student Author)** Baranes, H., **Woodruff, J. D.,** Talke, Kopp, R. E., S. A., Ray, R. D., & DeConto, R. M. (Dec 2-13, 2019), Big tides and rising seas: estimating flood hazard in a changing world, COP-25 United Nations Climate Change Conference, Madrid, Spain
- 90. Winkler, T.S., van Hengstum, P.J., Donnelly, J.P., Maio, C., D'Entremont, N.E., Hawkes, A., Sullivan, R.M., Wallace, E.J. and Woodruff, J.D., (Dec. 12, 2019). A 1800-Year Sedimentary Record from a Bahamian Blue Hole Archives Significant Variations in Intense Hurricane Landfall Frequency. Paper No. PP43D-1644, American Geophysical Union Fall Meeting, San Francisco, CA
- 89. Ralston D., Yellen, B., **Woodruff, J.D.,** (Nov. 7, 2019), Impacts of dam removals on sediment supply, transport, and deposition in the Hudson River estuary, *Coastal Estuarine Research Federation Bienniel Conference*, Mobile, AL
- 88. **(Student Author)** Ladlow, C., **Woodruff, J.D.,** Cook T.L., Baranes, H.E., Kanamaru, K. (Mar 19, 2019), A Fluvial-Derived Flood Deposit Dating to the Kamikaze Typhoons in Kawahara, Japan, Paper No. 45-5, *Geological Society of America, Northeastern Regional Meeting*, Portland, ME
- 87. **(Student Author)** Griswold, F., **Woodruff, J.D.,** Baranes, H., (Mar 18, 2019), Differentiating Typhoon and Tsunami Deposits in Lake Ryujin, Kyushu, Japan, Paper No. 43-4, *Geological Society of America, Northeastern Regional Meeting*, Portland, ME

- 86. **(Student Author)** Baranes, H., Woodruff, J. D., Talke, S. A., Ray, R. D. (Mar 17-19, 2019), Interannual variation in extreme water level probabilities in the Gulf of Maine, Paper No. 45-10, *Geological Society of America, Northeastern Regional Meeting*, Portland, ME
- 85. Wallace, J.W., Donnelly, J.P., van Hengstum, P.J., McKeon, K., **Woodruff, J.D.,** Winkler, T.S., Sullivan, R., Hawkes, A., Maio, C., Dizon, C., (Dec. 10-13, 2018), Regional Shifts in Paleohurricane Activity over the Past Millennium Reconstructed from Blue Holes in the Tropical Atlantic, Paper No. PP42A-05, *American Geophysical Union Fall Meeting*, Washington, D.C.
- 84. **(Student Author)** Ladlow, C., **Woodruff, J.D.,** Baranes, H.E., Kanamaru, K., Cook, T. (Dec. 10-13, 2018), Evidence of Fluvially-derived Sediment During the Kamikaze Typhoons near Nagasaki, Japan, Paper No. PP42A-02, *American Geophysical Union Fall Meeting*, Washington, D.C.
- 83. **(Student Author)** Baranes, H.E., **Woodruff, J.D.,** Talke, S.A., Ray, R.D., (Dec. 10-13, 2018), Spatiotemporal Trends in Annual High Water Extremes in the Gulf of Maine, Paper No. NH43C-1070, *American Geophysical Union Fall Meeting*, Washington, D.C.
- 82. Yellen, B., **Woodruff, J.D.,** Ralston, D.K., Ladlow, C., Fernald, S., Lau, W., (Dec. 10-13, 2018), Evaluating Impacts of Dam Removals on Downstream Tidal Wetlands, Paper No. EP41C-2681, *American Geophysical Union Fall Meeting*, Washington, D.C.
- 81. **Woodruff, J.D.,** Yellen, B., Geyer, W.R., Kranenburk, W., Randal, N., Richarson, J.B., (Dec. 10-13, 2018), Storm Impacts on Estuarine Marshes, Paper No. EP21A-08, *American Geophysical Union Fall Meeting*, Washington, D.C.
- 80. Castagno, K.A., Ruehr, S.A., Donnelly, J.P., **Woodruff, J.D.** (Dec. 10-13, 2018), Grain-size distribution and patterns in storm-induced event beds in a coastal pond, Paper No. EP13D-2125, *American Geophysical Union Fall Meeting*, Washington, D.C.
- 79. Ralston, D., **Woodruff, J.D.,** Yellen, B., Fernald, S., Ladlow, C. Lau, W. (Nov. 5-9, 2018), Evaluating Impacts of Dam Removals on Downstream Tidal Wetlands, *NERRS/NERRA Annual Meeting*, Duluth, MN
- 78. **(Student Author)** Beach, D., **Woodruff, J.D.,** Baranes, H., DiTroia, A., (Oct. 30, 2018), Method evaluation for assessing changes in beach morphology following 2018 Boston flood events of record, American Shore & Beach Preservation Association, National Coastal Conference, Galveston, TX
- 77. **(Student Author)** DiTroia, A., **Woodruff, J.D.,** Mabee, S., Venti, N., and Beach, D., (Feb. 14, 2018), Legacy Sediment Controls on Grain Size for Paraglacial Beaches, *Ocean Sciences, AGU-ASLO*, Portland, OR
- 76. Switzer, A. Gan, G., Li, L., Soria, J.L., Gouramanis, C., **Woodruff, J.D.**, (Feb. 04, 2018), On the need for paleotempestology research in the Western Pacific, *New Dimensions for Natural Hazards in Asia, AOGS-EGU Joint Conference*, Tagayta, Philippines
- 75. Talke, S., Kemp, A., and Woodruff, J.D., (Dec. 13, 2017), Relative Sea Level, Tide Range and Extreme Water Levels in Boston Harbor from 1825 to 2016, Paper No. OS21B-03, *American Geophysical Union Fall Meeting*, New Orleans, LA.
- 74. Castagno, K., Rhuehr, S., Donnelly, J., and **Woodruff, J.D.** (Dec. 13, 2017), Grain-size analysis and sediment dynamics of hurricane-induced event beds in a coastal New England pond, Paper No. EP12B-08, *American Geophysical Union Fall Meeting*, New Orleans, LA.

- 73. Wallace, E., Donnelly, J., van Hengstum, P., Wiman, C., McKeon, K., LaBella, A., Sullivan, R., Winkler, T., **Woodruff, J.D.,** Hawkes, A., Maio, C. (Dec. 13, 2017), Sedimentary Reconstructions of Tropical Cyclone Activity over the Past 1500 Years from Blue Holes in the Caribbean, Paper No. PP53D-08, *American Geophysical Union Fall Meeting*, New Orleans, LA.
- 72. Farrington, E., Lane, C., Hawkes, A., Donnelly, J., van Hengstrum, P., **Woodruff, J.D.,** Maio, C., Grochocki, K., Taylor, A., (Dec. 13, 2017), Sedimentary Geochemical and Palynological Evidence of Late-Holocene Paleoenvironmental Change from Baradères Bay, Haiti, Paper No. PP33A-1315, *American Geophysical Union Fall Meeting*, New Orleans, LA.
- 71. Yellen, B., **Woodruff,** J.D., Ralston, D.K., MacDonald, D.G., Jones, D., (Nov. 07, 2017), Salt wedge dynamics lead to enhanced sediment trapping within side embayments in high-energy estuaries, *Coastal Estuarine Research Federation Annual Meeting*, Providence RI.
- 70. **(Student Author)** DiTroia, A., **Woodruff, J.D.,** Venti, N., Mabee, S., Beach, D., (Nov. 08, 2017), Legacy sediment controls on grain size for paraglacial beaches, *Coastal Estuarine Research Federation Annual Meeting*, Providence RI.
- 69. Kashima, K., Fukumoto, Y., **Woodruff, J.D.,** Haraguchi, T., Yoshinaga, Y., (Sept. 4-8, 2017), Diatoms and Chrysophyceae spores at Lake Ryuo-ike and Lake Ikeda-Ike (Daija Ike), coastal lagoons at western part of Japan, to identify typhoon and tsunami deposits in lake sedimentary cores, *Asian Association for Quaternary Research*, Jeju Island, S. Korea
- 68. Kida, S., Okazaki, Y., and **Woodruff, J.D.,** (May 20-25, 2017), Capturing extreme river runoff events from oceanic sediment distribution, *Japan Geoscience Union-American Geophysical Union Joint Meeting*, Chiba, Japan
- 67. **Woodruff, J.D. (Invited),** Baranes, H., Loveless, J., (Oct 15-16, 2016), Sedimentary Reconstructions of Nankai Trough Derived Mega-Thrust Tsunamis from the Bungo Channel, Shikoku, Japan, East Eurasia International Conference on Earth Surface Processes and Long-term Environmental Changes, Okinawa, Japan
- 66. **Woodruff, J.D.**, Kashima, K. 2016, (Oct. 15-16), Evidence for the Kamikaze Typhoons and Potential Climate Drivers from Western Kyushu, Japan, East Eurasia International Conference on Earth Surface Processes and Long-term Environmental Changes, Okinawa, Japan
- 65. **(Student Author)** Stromer, Z. **Woodruff, J.D.,** Mabee, S., (Oct. 26-28, 2016), Coastal Flood Risk in Massachusetts: A Combined Approach, *American Shore & Beach Preservation Association 90th Anniv. Conference*, Long Branch, NJ
- 64. Mabee, S., **Woodruff, J.D.,** Venti, N., DiTrioa, A., and Beach, D.(Oct. 26-28, 2016), Sand Resource Assessment at Public Beaches in Massachusetts: Determination of Baseline Profile and Grain Size Conditions, *American Shore & Beach Preservation Association 90th Anniv. Conference*, Long Branch, NJ
- 63. Woodruff, J.D. (Invited), Kanamaru, K. and Cook, T., (July 28, 2016), Sedimentology of the Genko (元茂) Invasions, International Conference on Climatic variations and natural disasters in Japan during the 19th century, Seikei University, Japan
- 62. **Woodruff, J.D. (Invited)**, Kanamaru, K. and Cook, T., (June 24-25, 2016), Japan paleo-typhoon climatology, *AORI International Conference: Recent Advances in Paleoclimate Studies*, University of Tokyo, Japan

- 61. **Woodruff, J.D. (Invited)**, Kanamaru, K. and Cook, T., (May 22-26, 2016), Depositional evidence for the Kamikaze Typhoons from Western Kyushu, Japan, *Japan Geoscience Union Annual Meeting*, Chiba, Japan
- 60. **Woodruff, J.D.**, Baranes, H., Kanamaru, K., Wallace, D., Loveless, J., Weiss, R., Chen, W., and Cook, T., 2016 (May 24), Sedimentary reconstructions of coastal flooding in the Bungo Channel by the 1707 CE Hoei tsunami, *Japan Geoscience Union Annual Meeting*, Chiba, Japan
- 59. **(Student Author)** Cashman, M., **Woodruff, J.D.**, Donnelly, J.P., 2016 (Mar. 21-23) Relative Flow Intensity Analysis of Modern and Historical Tropical Atlantic Hurricanes, *Northeastern Section, GSA*, 51st Annual Meeting, NH, Paper No. 60-1, Albany, NY
- 58. **(Student Author)** Schulze, N., **Woodruff, J.D.**, Kanamaru, K., Baranes, H., 2016 (Mar. 21-23) Sedimentological Signatures of Regional Seismicity in Western Shikoku, *Northeastern Section, GSA*, 51<sup>st</sup> Annual Meeting, , Paper No. 60-4, Albany, NY
- 57. (Student Author) Baranes, H., Woodruff, J.D., Loveless, J., Cheng, W., Weiss, R., and Kanamaru, K., 2015, (Dec. 17) Using present-day patterns of interseismic coupling to model the C.E. 1707 Hōei earthquake and simulate tsunami inundation of Lake Ryuuoo in the Bungo Channel, southwestern Japan, Paper No. NH24A-03, *American Geophysical Union Fall Meeting*, San Francisco, CA
- 56. **Woodruff, J.D. (Invited)**, Stromer, Z., Talke, S., and Orton, P., (Dec. 11-15, 2015), Improving Coastal Flood Risk Assessments for the Northeastern United States: New York City to Boston, Paper No. NH44A-01, *American Geophysical Union Fall Meeting*, San Francisco, CA
- 55. **(Student Author)** Stromer, Z.D., **Woodruff, J.D.,** Donnelly, J.P., 2015 (Nov. 1) The Great Colonial Hurricane of 1635 Reassessing Extreme Flood Vulnerability for the Southern Coast of Massachusetts, *GSA Annual meeting*, Paper# 134-15, Baltimore, MD.
- 54. **Woodruff, J.D. (Invited)**, Brandon, C., Orton, P. and Donnelly, J., (May 10, 2015), Coastal Flooding in New York City: Storm, Sea Level and Shoreline Change, Royal Geographical Society Conference on Storm Geomorphology, London, UK
- 53. **(Student Author)** Yellen, B.C., **Woodruff, J.D.**, Cook, T.L., and Newton, B.M., 2015 (Mar. 23-25), Did Climate Change Cause Extreme Erosion During Hurricane Irene? Expectations Moving Forward, Paper No. 18-6, *Northeastern Section, GSA*, 50th Annual Meeting, Bretton Woods, NH
- 52. **(Student Author)** Yellen, B.C., **Woodruff, J.D.**, MacDonald, D., Martini, A.M., and Jones, D.S., 2015 (Mar. 23-25), Infilling of Tidal Freshwater River Coves Observations at Multiple Time Scales, Paper No. 34-10, *Northeastern Section, GSA*, 50th Annual Meeting, Bretton Woods, NH
- 51. Cook, T.L., Yellen, B.C., Miller, D.R., and **Woodruff, J.D.**, 2015 (Mar. 23-25), Geomorphic Impacts of Floods, Humans and Climate Change on the Post Glacial Landscape of New England, Paper No. 18-2, *Northeastern Section, GSA*, 50th Annual Meeting, Bretton Woods, NH
- 50. **(Student Author)** Terra, C.J., Clement, W.P. and **Woodruff, J.D.**, 2015 (Mar. 23-25), Using Ground Penetrating Radar to Compare Hurricane Irene to Past Events, Paper No. 32-4, *Northeastern Section*, *GSA*, 50th Annual Meeting, Bretton Woods, NH
- 49. **(Student Author)** Beaulieu, O.P., Brandon, C.M., and **Woodruff, J.D.**, 2015 (Mar. 23-25), Sedimentary Evidence of European Land Clearance and Oyster Bed Destruction in New York Harbor, Paper No. 73-10, *Northeastern Section, GSA*, 50th Annual Meeting, Bretton Woods, NH

- 48. Venti, N.L., Gessay, S., Southard, P., Beach, B., Mansfield, M., Mabee, S., and Woodruff, J.D., 2015 (Mar. 23-25), Subtle Modification of Glacially Derived Materials Along Massachusetts' Southern Coast By Passing Summer Storms, Paper No. 73-2, Northeastern Section, GSA, 50th Annual Meeting, Bretton Woods, NH
- 47. Kanamaru, K., **Woodruff, J.D.**, Kundu, S., and Cook, T., 2014 (Dec. 15-19), Geochemical Characteristics of Typhoon and Tsunami Induced Deposits from Western Kyushu Islands, *Eos, Transactions, American Geophysical Union*, Fall Meet. Suppl. Abstract NN21A-3816, San Francisco, CA
- 46. Wallace, D., Rosenheim, B., Robert, M., Burton, J., Donnelly, J., and **Woodruff, J.D.**, 2014 (Dec. 15-19), Paleotempestological chronology developed from gas ion source AMS analysis of carbonates determined through real-time Bayesian statistical approach, *Eos, Transactions, American Geophysical Union*, Fall Meet. Suppl. Abstract PP41D-1429, San Francisco, CA
- 45. **(Student Author)** Baranes, H., Woodruff, J.D., Wallace, D.J., Kanamaru, K. and Cook, T., 2014 (Oct. 19-22), Sedimentological Signatures of Large Scale Inundation Events: Records of the 1707 AD Hoei Tsunami from the Bungo Channel, Japan, Paper No. 182-6, *GSA Annual Meeting*, Vancouver, BC, Canada
- 44. **(Student Author)** Yellen, B., **Woodruff, J.D.**, MacDonald, D., and Martini, A., 2014, (Oct. 19-22), Sedimentary Response of Tidal Freshwater Rivers and Coves to Salt Intrusion Implications for Sea Level Rise Paper No. 311-8, *GSA Annual Meeting*, Vancouver, BC, Canada
- 43. Wallace, D., Donnelly, J., and Woodruff, J.D., 2014, (Oct. 19-22), Reconstructing Western Atlantic Holocene Hurricane Impacts from Two Coastal Ponds in Bermuda, Paper No. 182-9, *GSA Annual Meeting*, Vancouver, BC, Canada
- 42. (Student Author) Baranes, H., Woodruff, J.D., Wallace, D., Kanamaru, K., Cook, T.L., 2014, Historical Inundation Events from Western Kyushu Islands: Geochemical Characteristics of Typhoon and Tsunami Induced Deposits, Abstract ID IG04-A015, *Asia Oceania Geosciences Society Annual Meeting*, Sapporo, Japan
- 41. Kanamaru, K., **Woodruff, J.D.**, Kundy, S., Cook, T.L., 2014, Historical Inundation Events from Western Kyushu Islands: Geochemical Characteristics of Typhoon and Tsunami Induced Deposits, Abstract ID IG04-A019, *Asia Oceania Geosciences Society Annual Meeting*, Sapporo, Japan
- 40. **(Student Author)** Yellen, B.C., **Woodruff, J.D.,** Cook, T.L., Fallon, A.R., Kratz, L.N., Martini, A., 2014, (Mar. 25), Putting Hurricane Irene Sediments In A Historical Context Evidence From Uplands To Estuary, Paper No. 59-2, *Northeastern Section, GSA*, 49th Annual Meeting, Lancaster, PA
- 39. (Student Author) Hannah, B.E., Woodruff, J.D., Kanamaru, K., Wallace, D., Cook, T.L., 2014, (Mar. 25), Sedimentological Impacts Of Large Scale Inundation Events: Records Of Tsunami And Typhoon Flooding From Lake Ryuuoo, Japan, Paper No. 59-3, Northeastern Section, GSA, 49th Annual Meeting, Lancaster, PA
- 38. **(Student Author)** Brandon, C.M., **Woodruff, J.D.,** Donnelly, J.P., 2014, (Mar. 25), Sedimentary Reconstructions Of Flooding And Shoreline Change Of Staten Island, NY: Implications For Future Management Of New York Harbor, Paper No. 59-1, *Northeastern Section, GSA, 49th Annual Meeting,* Lancaster, PA
- 37. Cook, T.C., Yellen, B.C., **Woodruff, J.D.,** 2014, (Mar. 24), A Long-term Perspective On Tropical Storm Irene And The Occurrence Of Extreme Geomorphic Events Based On Flood-induced Deposits In Amherst Lake, VT, Paper No. 41-1, *Northeastern Section, GSA, 49th Annual Meeting,* Lancaster, PA

- 36. **(Student Author)** Dunn, C.A., Yellen, B.C., **Woodruff, J.D.,** Schmidt, A.H., 2014, (Mar. 24), How Unusual Is Tropical Storm Irene? A Case Study Of Storm Deposition In Littleville Lake, Huntington, MA, Paper No. 41-2, *Northeastern Section, GSA*, 49th Annual Meeting, Lancaster, PA
- 35. **(Student Author)** Seidenstein, J., Newton, R.M., Yellen, B.C., **Woodruff, J.D.,** Germanoski, D., 2014, (Mar. 23), Clay Mineralogy Fingerprinting Of Sediments Deposited From Tropical Storm Irene In The Connecticut River Watershed, Paper No. 14-7, *Northeastern Section, GSA, 49th Annual Meeting,* Lancaster, PA
- 34. **(Student Author, Invited)** Brandon, C., **Woodruff, J.D.**, Donnelly, J., 2013 (Oct. 29). Using inundation deposits to constrain past storm surges impacting New York City, NY, Paper No. 246-15, *GSA Annual Meeting*, Denver, CO, USA
- 33. **(Student Author, Invited)** Brandon, C., **Woodruff, J.D.**, Donnelly, J., 2013 (Oct. 27). How unique was Hurricane Sandy? A Comparison of the inundation deposits and surge heights from Hurricane Sandy and the 1821 Hurricane, Paper No. 12-12, *GSA Annual Meeting*, Denver, CO, USA
- 32. **Woodruff, J.D. (Invited)**, Brandon, C., Donnelly, J., (Oct. 19-22, 2014), Human Impacts on New York City Barrier Development, Paper No. 340-2, *GSA Annual Meeting*, Vancouver, BC, Canada
- 31. **Woodruff, J.D. (Invited)**, Brandon, C., Donnelly, J., (Oct. 19-22, 2014), Are We Significantly Underestimating the Current Risk of Extreme Flooding to New York City?, Paper No. 67-5, *GSA Annual Meeting*, Vancouver, BC, Canada
- 30. **Woodruff, J.D. (Invited)**, Kanamaru, K., Kundu, S., Cook, T, (Oct. 19-22, 2014), Depositional Evidence for the Kamikaze Typhoons: Climate, Extreme Weather, and the Collapse of the Mongol Empire, Paper No. 182-2, *GSA Annual Meeting*, Vancouver, BC, Canada
- 29. **Woodruff, J.D. (Invited)**, Mabee, S., Venti, N., Mansfield, M., (Sept. 20, 2014), Sand Resource Needs Assessment at Critical Beaches on the Massachusetts Coast, Northeast Shore & Beach Preservation Association *Conference on New England Coastal Issues*, Plymouth, MA, USA
- 28. Woodruff, J.D. (Invited), Brandon, C., Donnelly, J., (July 27-31, 2014), Anthropogenic Versus Natural Controls on Storm Surge Inundation for the Harbor of New York City: Insight from Hurricane Sandy, Abstract ID IG07-A005, *Asia Oceania Geosciences Society Annual Meeting*, Sapporo, Japan
- 27. **Woodruff, J.D.,** 2013 (Apr. 15) Sea-level rise and geomorphic dominance on landfalling tropical cyclone impacts, *Joint Penrose/Chapman Conference on Coastal Processes and Environments Under Sea-Level Rise and Changing Climate*, Galveston, TX, USA
- 26. (Student Author) Brandon, C., and Woodruff, J.D., 2013 (Apr. 15) Tropical cyclone wind speed constraints from resultant storm surge deposits: a 2500 year reconstruction of hurricane activity from St. Marks, FL., Joint Penrose/Chapman Conference on Coastal Processes and Environments Under Sea-Level Rise and Changing Climate, Galveston, TX, USA
- 25. Wallace, D.J., Donnelly, J.P., **Woodruff, J.D.,** and Anderson, J.B., 2013 (Apr. 15) Reconstructing Western Atlantic Holocene Hurricane Impacts, *Joint Penrose/Chapman Conference on Coastal Processes and Environments Under Sea-Level Rise and Changing Climate*, Galveston, TX, USA
- 24. **(Student Author)** Yellen, B.C., **Woodruff, J.D.**, \*Fallon, A.R., and Kratz, L.N., 2013 (Mar. 19). The effect of flood control dams on downstream sedimentation from a large discharge event: A study of

- Tropical Storm Irene and the Connecticut River, Paper No. 32-6, Northeastern Section, GSA, 48th Annual Meeting, Bretton Woods, NH. USA
- 23. Mabee, S.B., **Woodruff, J.D.**, Fellows, J., and Kopera, J.P., 2013 (Mar. 19). Landslides from Tropical Storm Irene in the Deerfield Watershed, Western Massachusetts, Paper No. 32-3, *Northeastern Section, GSA*, 48th Annual Meeting, Bretton Woods, NH. USA
- 22. **(Student Author)** Fallon, A.R., **Woodruff, J.D.**, Yellen, B.C., Kratz, L.N., 2013 (Mar. 19). How unique was Tropical Storm Irene? A comparison of deposits from historical floods on the lower Connecticut River, Paper No. 60-3, *Northeastern Section, GSA*, 48th Annual Meeting, Bretton Woods, NH. USA
- 21. **(Student Author)** Kratz, L.N., **Woodruff, J.D.**, \*Yellen, B.C., and \*Fallon, A.R., 2013 (Mar. 19). The relative role of high magnitude, low frequency events in infilling off-river waterbodies: insight from Tropical Storm Irene and the 2012 Spring Freshet, Paper No. 60-1, *Northeastern Section, GSA*, 48th Annual Meeting, Bretton Woods, NH. USA
- 20. **(Student Author)** Hellmer, M., Martini, A. and **Woodruff, J.D.**, 2013 (Mar. 19). Mercury loading along the Connecticut River: Sedimentary records from Barton Cove, MA., Paper No. 44-12, *Northeastern Section, GSA*, 48th Annual Meeting, Bretton Woods, NH. USA
- 19. **(Student Author)** Yellen, B., **Woodruff, J.D.**, Kratz, L.N., Fallon, A., 2012 (Dec. 5), Do hurricanes leave unique sedimentological records in floodplain settings? Connecticut River, Tropical Storm Irene and past flood events. *AGU Annual Meeting*, San Francisco, CA, USA
- 18. **Woodruff, J.D. (Invited)**, and Martini, A.M., (Nov. 13-14, 2012). Sediment trapping and human impacts on tidal off-river waterbodies, *AGU Chapman Conference on Hydrogeomorphic Feedbacks and Sea Level Rise in Tidal Freshwater River Ecosystems*, Reston, Virginia
- 17. **(Student Author)** Brandon, C., **Woodruff, J.D.**, Donnelly, J., Lane, P., 2012 (Nov. 7). Constraining hurricane wind speed at landfall using storm surge overwash deposits from a sinkhole in St. Marks, FL, Paper No. 266-6, *GSA Annual Meeting*, Charlotte, NC, USA
- 16. Kanamaru, K., **Woodruff, J.D.**, Cook, T.L., 2012 (Nov. 7). Sedimentary evidence of the 13th Century Kamikaze Typhoons from Southwestern Japan, Paper No. 28-2, *GSA Annual Meeting*, Charlotte, NC, USA
- 15. Wallace, D., Kanamaru, K., Cook, T., **Woodruff, J.D.**, 2012 (Nov. 7). Sedimentological records of typhoons and tsunamis from Shikoku, Southeastern Japan, Paper No. 88-1, *GSA Annual Meeting*, Charlotte, NC, USA
- 14. Martini, A., **Woodruff, J.D.**, Kekacs, D., Bouberhan, H., Bercerra, C.A., 2012. Mercury methylation, pore water geochemistry and legacy mercury contamination along the floodplain of the Connecticut River, Paper No. 3:14D, 22<sup>nd</sup> Goldschmidt Conference, Montreal, CAN
- 13. **Woodruff, J.D.** and Martini, A.M., 2012. Post-Colonial Inlets and the Rapid Infilling of Tidal Floodplain Lakes and Coves: Connecticut River, U.S.A, Paper No. 2-9, *Northeastern Section, GSA*, 47th Annual Meeting, Hartford, CT., USA
- 12. **(Student Author)** Kratz, L.N., **Woodruff, J.D.**, Martini, A.M., and Morrison, J., 2012. Resultant Sedimentation from Tropical Storm Irene in the Lower Connecticut River, Paper No. 2-10, *Northeastern Section, GSA*, 47<sup>th</sup> Annual Meeting, Hartford, CT. USA

- 11. **(Student Author)** Bouberhan, H., Martini, A.M., and **Woodruff, J.D.**, 2012. Controls on Methylmercury Production in Two Connecticut River Embayments, Paper No. 53-3, *Northeastern Section, GSA*, 47<sup>th</sup> Annual Meeting, Hartford, CT, USA
- 10. **(Student Author)** Fine, L., Donnelly, J., Martini, A. and **Woodruff, J.D.**, 2012. Calibrating a Sedimentary Record of Hurricane Overwash Deposition from Quissett Harbor, Woods Hole, MA, Paper No. 18-9, *Northeastern Section, GSA*, 47th Annual Meeting, Hartford, CT, USA
- 9. Woodruff, J.D., \*Kratz, L., \*Yellen, B., and Martini, A., 2012. Tidal Controls on the trapping of Hurricane Irene sediments in the Lower Connecticut River, T-29, TOS/ASLO/AGU Ocean Sciences Meeting, Salt Lake City, UT, USA
- 8. **(Student Author)** Brandon, C.M., **Woodruff, J.D.**, Lane, P., Donnelly, J.P., 2011. Constraining flooding conditions for early historic and prehistoric hurricanes from resultant deposits preserved in Florida sinkholes, *Eos, Transactions, American Geophysical Union*, Fall Meet. Suppl. Abstract OS33A-1645, San Francisco, CA
- 7. **(Student Author)** Jacobacci, K., **Woodruff, J.D.,** O'Connell, S., and Naughton, T., 2011. A case study for sediment and contaminant storage in floodplain tidal ponds: Selden Cove, Connecticut River, *GSA Northeastern-Central Joint Meeting*, 43(1) pp. 66. Paper No. 12-3, Pittsburgh, PA
- Woodruff, J.D. (Invited), Sriver, R.L., Lund, D.C., (Dec., 12-16, 2010). Tropical cyclone activity and western North Atlantic stratification over the last millennia and potential connections, Eos, Transactions, American Geophysical Union, 91(51) Fall Meet. Suppl. Abstract GC32B-01, San Francisco, CA
- (Student Author) Brandon, C.M., Woodruff, J.D., Donnelly, J.P., 2010. Constraining hurricaneinduced flooding over the last 2000 years using preserved overwash deposits from a Florida sinkhole, Eos, Transactions, American Geophysical Union, 91(51) Fall Meet. Suppl. Abstract OS31D-1458, San Francisco, CA
- 4. (Student Author) Naughton, T.J., Woodruff, J.D., Elzidani, E.H., Martini, A.M., 2010. Tidal Impacts on Sediment and Associated Mercury Storage in the Lower Connecticut River Floodplain, Eos, Transactions, American Geophysical Union, 91(51) Fall Meet. Suppl. Abstract EP31B-0738, San Francisco, CA
- 3. Donnelly, J.P., **Woodruff, J.D.,** Lane, P., and Gomes, M., 2009. Late Holocene Coastal Archives of Intense Tropical Cyclone Activity: Patterns and Climatic Forcing, *Papers from the Annual Meeting of the Association of American Geographers*, Las Vegas, NV
- Woodruff, J.D., Jagger, T.H., Donnelly, J.P. and Okusu, A., 2009. Sedimentary evidence for a link between El Nino and tropical cyclone activity in the Western North Pacifice over the last 6500 years, Eos, Transactions, American Geophysical Union, 90(48) Fall Meet. Suppl. Abstract PP12C-03, San Francisco, CA
- 1. **Woodruff, J.D.**, Donnelly, J.P. and Okusu, A., 2009. Exploring typhoon variability over the mid-to-late Holocene: evidence of extreme coastal flooding from Kamikoshiki, Japan, 2<sup>nd</sup> Annual Summit on Hurricanes and Climate Change, Corfu, Greece

#### Teaching and Advising (Since 2009)

# Teaching Experience

GEO-SCI 557 (25 students), Springs 20- 10,13,15,18,20,21,22,23 Coastal Processes:

Avg. Student Evaluations of Instructor (out of 5): 4.6

Introductory Oceanography: GEO-SCI 103 (300 students), Spring 20- 11,13,15,17,19, Fall 2021

Avg. Student Evaluations of Instructor (out of 5): 4.6

Living on Earth GEOLOGY-494LI (30 students), Fall 2019

Average Student Evaluations of Instructor (out of 5): 4.7

GEO-SCI 445 (25 students), Fall 20- 09-15,17,18 Sedimentology w/Lab:

Average Student Evaluations of Instructor (out of 5): 4.2

Sed. Honors Colloquium: GEO-SCI H445 (5-15 students), Fall 20- 10-18

Average Student Evaluations of Instructor (out of 5): 4.9

Sediment & Coastal Dynamics Seminar: GEO-SCI 593S (Spring, 2017-2022)

Indigenous Knowledge on Climate Adaptation Seminar: GEOLOGY 497K (Spring, 2021)

> Funded in-part via a \$10k Native American and Indigenous Studies 5-College Mellon Mini-Grant

# Advising

Postdoctoral Scholars:

Erin Peck (2022-present)

Julie Walker (2022-present)

Nicholas Venti (2014-2016)

Davin Wallace (2012-2013)

Kinuyo Kanamaru (2010-2012)

Ph.D. Graduate Students:

Pedro Matos Llavona (2019-present)

Frances Griswold (2017-2022)

Hannah Baranes (2017-2021)

Brian Yellen (2012-2015) Christine Brandon (2010-2015)

M.Sc. Graduate Students:

Molly Autery (2022-present)

Olivia Hansen (2021-present, co-advised)

Kelly McKeon (2019-2021)

Caroline Ladlow (2017-2019)

Douglas Beach (2017-2019)

Alycia DiTroia (2017-2019)

Zachary Stromer (2014-2016)

Hannah Baranes (2013-2015)

Laura Kratz (2011-2013)

Emhmed Elzidani (2009-2011)

Senior Undergraduate Theses:

Jacob Light (2016-2017)

Miranda Cashman (2015-2016)

Nina Schulze (2015-2016)

Wesley Johnson (2013-2015)

Olivia Beaulie (2014-2015)

Andrew Fallon (2012-2013)

Jennifer Fardy (2011-2012)

Jonathan Schneyer (2011-2012)

Kara Jacobacci (2010-2011)

Dissertation Committee Member:

Samantha McComb (Ph.D., 2022-present)

Wenxiu Teng (Ph.D., 2021-present)

Bonnie Turek (M.S., 2020-2023)

Karin Lehnigk (PhD., 2018-2022)

Evan Thaler (Ph.D., 2017-2021)

Brendan Moran (M.S., 2018-2020)

Elisabeth Waller (MIT/WHOI, Ph.D. 2016-2020)

Torgeir Opeland Røthe (Ph.D., 2018-2019)

K. Castagno (MIT/WHOI, Ph.D. 2016-2019)

Sarah McKnight (M.S., 2017-2019)

Arash Pirouzi (Ph.D., 2018)

Pamela Patrick (PhD, 2015-2018)

Daniel Miller (M.S., 2014-2015)

Zackary Smith (Ph.D., 2013)

Noah Sloven (M.S., 2013-2014)

Benjamin Pelto (M.S., 2013-2014)

Hoang Nguyen (Ph.D., 2010-2011)

Adrian Boscardin (Ph.D., 2011-2013)

Brian Yellen (M.S., 2010-2011)

Nicholas Balascio (Ph.D., 2009-2010)

Undergraduate Independent Study Projects:

Iva Resnja (Summer-2022 - present)

Hannah Chan (Summer-2022 - present)

Noa Randall (Fall, 2018)

William Kopaciewicz (Fall, 2017)

Jessica Panton (Fall, 2017)

Sabina Gessay (Spring, 2015)

Jennifer Jurnack (Spring, 2015)

Justin Healey (Spring, 2015)

Cameron Kuney (Spring, 2014)

Travis Eddy (Spring, 2014)

Melanie Koerth (Spring, 2014) Lisa Kumpf (Spring, 2013) Christopher Hocker (Spring, 2011) Shakib Ahmed (2009-2010) Fumi Fakabori (2009-2010)

# Service (Since 2009)

#### Scientific Outreach

Associate Editor: Island Arc (official journal of the Japanese Geological Society): 2016-2020

**Reviewer:** Earth Science Reviews; Estuaries; Estuarine, Coastal and Shelf Science; Estuaries and Coasts; Geology;

Geomorphology; Geophysical Research Letters; Holocene; Island Arc; Journal of Geophysical Research; Journal of Climate; Journal of Paleolimnology; Journal of Quaternary Science, Marine Geology; Marine Geophysical

Researches; Natural Hazards; Nature; Proceedings of the National Academy of Sciences; Quaternary

International; Quaternary Research; Scientific Reports; Sedimentary Geology

**Proposal Reviewer:** DOE National Institute for Climate Change Research, National Geographic Society,

National Science Foundation (Marine Geology and Geophysics, Sedimentary Geo & Paleobiology; Geomorphology & Land-Use Dynamics; Paleo Perspectives on Climate Change), University of

Puerto Rico Sea Grant

**Panel Member:** Invited US National Science Foundation Panel Member (1 full yr, fall and spring rotations)

Professional Affiliations: American Geophysical Union, Japanese Geophysical Union, Geological

Society of America, Society for Sedimentary Geology, Sigma Xi

Science Featured in: BBC, CBS, NBC, NECN, National Public Radio, Boston Globe, TIME,

RTT, Fox News, National Geographical Society Magazine and Channel, Science Magazine, Spiegel Magazine, Miller-McCune Magazine, Slate

Magazine, EARTH Magazine, AccuWeather, Weather Channel, Physics.org, New Scientist, Archaeology, Climate Central, and the National Science

Foundation

2019-2022 Greater Boston Research Advisory Group, Climate Ready Boston Report, Advisory Committee

and Contributing Author

2020-2022 New England Salt Marsh Working Group, Sub-Group Lead on Sediment Supply & Soils

2017-2019 Co-organizing both annual webinar and in-person stakeholder meetings for NOAA National

Estuarine Research Reserve System (NERRS) Scientific Collaborative sponsored *Dams and the Sediment in the Hudson* (DASH) to address effects of dam removal on sediment transport and

wetland sustainability in the Hudson River Estuary.

2018 NSF Coastlines and People Scoping Workshop participant, Chicago, IL (Sept. 25-28, 2018)

2016 Co-organizer of East Eurasia International Workshop on Present Earth Surface Processes and

Long-Term Environmental Changes (Oct. 14-17), Okinawa, Japan

2015-2016 Panel Member and Co-Author of Advisory Report on Coastal Flooding for the City of Boston.

2013 Co-led 4-week Keck undergraduate summer field program studying Hurricane Irene's impact on

the Connecticut River and associated upland tributaries

2012 Participant in 50-member NSF sponsored panel to discuss tsunami deposits and their role in

hazard mitigation. Co-authored white-paper report:

Weiss, R., Harris, C. **Woodruff, J.D.,** Lynett, P. Mandli, K. and Delbecque, K., 2012. Tsunami Sediment Dynamics: Erosion, Transport and Deposition: *In NSF Recommendation Report: Tsunami Sedimentology and Its Role in Hazard Awareness, Preparedness, Assessment and* 

Mitigation

2012 GSA Annual Meeting: convener of special session "Paleotempestology: Proxy Record Development and

Climate Forcing Mechanisms"

2012 Northeastern GSA Sectional Meeting: convener of special session "The Legacy of Humans and

Glaciation in Northeastern Rivers"

## Advisory Publications

- DeConto, R, Baranes, H., **Woodruff, J.D.,** Halberstadt, A.R., Kopp, R., (2022) Sea Level Rise Chapter in Greater Boston Research Advisory Group (GBRAG) Climate Ready Boston Report
- Kahl. K., Pappal, A., et al., Gaining Ground: Defining Priority Research for Resilient Salt Marshes, (2022) Salt Marsh Working Group
- Woodruff, J.D., Baranes, H., Yellen, B., Hughes, Z., Ganju, N., Turek, J., Cook, T., and Hoppings, R. (2022) A Summary of Driving Research Questions Related to Sediment Supply to Saltmarshes in the Northeast, Massachusetts Salt Marsh Working Group
- Contributing Author, (2019), Intergovernmental Panel on Climate Change (IPCC), Special Report on the Ocean and Cryosphere in a Changing Climate: Chapter 4 on Sea Level Rise and Implications for Low Lying Islands, Coasts and Communities, Cambridge University Press
- **Woodruff, J.D.,** (2018), Future of tidal wetlands depends on coastal management (News&Views). *Nature,* 561(7722):183-185: doi: 10.1038/d41586-018-06190-x
- Weiss, R., Harris, C. Woodruff, J.D., Lynett, P. Mandli, K. and Delbecque, K., 2012. Tsunami Sediment Dynamics: Erosion, Transport and Deposition: In NSF Recommendation Report: Tsunami Sedimentology and Its Role in Hazard Awareness, Preparedness, Assessment and Mitigation

# **University/Department Services**

2011-present	Faculty Advisor for UMass Environmental Science Majors
2009-present	Coastal and Marine Sciences - Five Colleges, Steering Committee Member
2019-2021	Graduate Admissions Committee – Umass, Department of Geosciences
2017-2019	Departmental Personnel Committee (2018-2019 chair) – UMass, Department of Geosciences
2016-2017	Faculty Aqueous Geochem. Search Committee – UMass, Department of Geosciences
2014-2015	UMass Goldwater Scholarship Committee
2014-2015	Committee for Graduate Admissions – UMass, Department of Geosciences
2013-2014	Faculty Geomorphology Search Committee – UMass, Department of Geosciences
2012-2013	Department Head Search Committee – UMass, Department of Geosciences
2010-2011	Departmental Personnel Committee – UMass, Department of Geosciences

# **Data Archives**

Cook, T.L., Autery, M., **Woodruff, J.D.**, and Yellen, B., 2023, Database of Sediment Accretion and Elevation Change Rates for Coastal Marshes of Northeastern United States, Derived from Studies Published from 1975 through 2022: Data Release, <a href="https://doi.org/10.21429/ff9k-1c07">https://doi.org/10.21429/ff9k-1c07</a>.

**Woodruff, J.D.,** Yellen, B., Cook, T.L., Baranes, H., Griswold, F., and Autery, M., 2023, Database of Sediment Mass Accumulation for Coastal Marshes of Northeastern United States from Sediment Trap Deployments during 2020 and 2021: Data Release, <a href="https://doi.org/10.21429/jwh1-yr28">https://doi.org/10.21429/jwh1-yr28</a>.

**Woodruff, J.D.,** Venti, N., Mabee, S., DiTroia, A., Beach, D. (2020), "Massachusetts Beach Grain Size and Slope Data", Data and Datasets. 115. <a href="https://doi.org/10.7275/z2rb-w469">https://doi.org/10.7275/z2rb-w469</a>

Yellen, B. & **Woodruff, J.D.** (2020), "Dam Impoundments Sediment Mass – Tributaries to the Hudson River". Data and Datasets. 109. https://doi.org/10.7275/xktv-8m12

Yellen, B. & Woodruff, J.D. (2020), "Hudson River Estuary Tidal Marsh Sediment Data". Data and Datasets. 108.

https://doi.org/10.7275/dh3v-0x33