

CASTNET Reference Listing: 2016-2019

Included publications that used CASTNET data or made comparisons to CASTNET data. A publicly available listing of all citations using CASTNET data is accessible at <https://www.epa.gov/castnet/castnet-bibliography>.

Jia, Y., Yu, G., Gao, Y., He, N., Wang, Q., Gao, C., Zuo, Y.	2016	Global inorganic nitrogen dry deposition inferred from ground- and space-based measurements	Nature Scientific Reports 6:19810
Li, Y., Schichtel, B., Walker, J., Schwede, D., Chen, X., Lehmann, C., Puchalski, M., Gay, D., Collett Jr, J.	2016	Increasing importance of deposition of reduced nitrogen in the United States	PNAS
Loughner, C.P., Tzortziou, M., Shroder, S., Pickering, K.E.	2016	Enhanced dry deposition of nitrogen pollution near coastlines: A case study covering the Chesapeake Bay estuary and Atlantic Ocean coastline	J. Geophys. Res. Atmos., 121 (23): 14221-14238
Nagano, H. & Iwata, H.	2016	Evaluating the relationship between wildfire extent and nitrogen dry deposition in a boreal forest in interior Alaska	Polar Science
Nopmongkol, U., Jung, J., Kumar, N., Yarwood, G.	2016	Changes in US background ozone due to global anthropogenic emissions from 1970 to 2020	Atmos. Environ. 140, 446-455
Okamoto, S., Tanimoto, H.	2016	A review of atmospheric chemistry observations at mountain sites	Prog. in Earth and Planet. Sci., 3: 34
Phalitnonkiat, P., Sun, W., Grigoriu, M.D., Hess, P., Samorodnitsky, G.	2016	Extreme ozone events: Tail behavior of the surface ozone distribution over the US	Atmospheric Environment, 128:134-146
Ren, X., W. T. Luke, P. Kelley, M. D. Cohen, R. Artz, M. L. Olson, D. Schmeltz, M. Puchalski, D. L. Goldberg, A. Ring, G.	2016	Atmospheric mercury measurements at a suburban site in the Mid-Atlantic United States: Inter-annual, seasonal and diurnal variations and source-receptor relationships	Atmospheric Environment 146:141-152
Dunker, A., Koo, B., Yarwood, G.	2017	Contributions of foreign, domestic and natural emissions to US ozone estimated using the path-integral	Atmos. Chem. Phys. 17, 12553-12571

		method in CAMx nested with GEOS-Chem	
Lin, M., Horowitz, L., Payton, R., Fiore, A., Tonnesen, G.	2017	US surface ozone trends and extremes from 1980 to 2014: quantifying the roles of rising Asian emissions, domestic controls, wildfires, and climate	Atmos. Chem. Phys., 17, 2943-2970
Amos, H., Miniati, C., Lynch, J., Compton, J., Templer, P., Sprague, L., Shaw, D., Burns, D., Rea, A., et. al.	2018	What goes up must come down: Integrating air and water quality monitoring for nutrients	Environmental Sci. & Tech.
Benedict, K., Prenni, A., Sullivan, A., Evanowski-Cole, A., Fischer, E., Callahan, S., Sive, B., Zhou, Y., et al.	2018	Impact of Front Range sources on reactive nitrogen concentrations and deposition in Rocky Mountain National Park	PeerJ 6:e4759
Gilliam, F., Burns, D., Driscoll, C., Frey, S., Lovett, G., Watmough, S.	2018	Decreased atmospheric nitrogen deposition in eastern North America: Predicted responses of forest ecosystems	Environmental Pollution
Hubbard, S., Williams, K., Agarwal, D., Banfield, J., Beller, H., Bouskill, N., Brodie, E., Carroll, R., et. al.	2018	The East River, Colorado Watershed: A mountainous community testbed for improving predictive understanding of multiscale hydrological-biogeochemical dynamics	Vadose Zone 17
Jaegle, L., Shah, V., Thornton, J., Lopez-Hilfiker, F., Lee, B., et. al.	2018	Nitrogen oxides emissions, chemistry, deposition, and export over the Northeast United States during the WINTER aircraft campaign	J. of Geophysical Research: Atmospheres
Lawal, A., Guan, X., Liu, C., Henneman, L., Vasilakos, P., Bhogineni, V., Weber, R., Nenes, A., Russell, A.	2018	Linked response of aerosol acidity and ammonia to SO ₂ and NO _x emissions reductions in the United States	Environmental Science & Technology 52, 9861-9873
Liu, Z., Liu, Y., Murphy, J., Maghirang, R.	2018	Contributions of Kansas rangeland burning to ambient O ₃ : Analysis of data from 2001 to 2016	Science of the Total Environ., 618, 1024-1031

Rieder, H., Fiore, A., Clifton, O., Correa, G., Horowitz, L., Naik, V.	2018	Combining model projections with site-level observations to estimate changes in distributions and seasonality of ozone in surface air over the U.S.A.	Atmospheric Environment
Riscassi, A., Scanlon, T., Galloway, J.	2018	Stream geochemical response to reductions in acid deposition in mid-Appalachian headwater streams: chronic versus episodic recovery from acidification	Hydrological Processes
Robison, A.L., Scanlon, T.M.	2018	Climate change to offset improvements in watershed acid-base status provided by Clean Air Act and Amendments: A model application in Shenandoah National Park, Virginia	J. of Geophysical Research
Schwede, D., Simpson, D., Tan, J., Fu, J., Dentener, F., Du, E., deVries, W.	2018	Spatial variation of modelled total, dry and wet nitrogen deposition to forests at global scale	Environmental Pollution
Seltzer, K., Shindell, D., Malley, C.	2018	Measurement-based assessment of health burdens from long-term ozone exposure in the United States, Europe, and China	Environmental Research Letters (13)
Shah, V., Jaegle, L., Thornton, J., Lopez-Hilfiker, F., Lee, B., Schroder, J., Campuzano-Jost, P., Jimenez, J., et. al.	2018	Chemical feedbacks weaken the wintertime response of particulate sulfate and nitrate to emissions reductions over the eastern United States	PNAS
Tan, J., Fu, J.S., Dentener, F., Sun, J., Emmons, L., Tilmes, S., Flemming, J., Takemura, T., Bian, H., Zhu, Q., et. al.	2018	Source contributions to sulfur and nitrogen deposition - an HTAP II multi-model study on hemispheric transport	Atmos. Chem. Phys., 18, 12223-12240
Thorslund, J., Cohen, M.J., Jawitz, J.W., Destouni, G., Creed, I.F., Rains, M.C., Badiou, P., Jarsjo, J.	2018	Solute evidence for hydrological connectivity of geographically isolated wetlands	Land Degradation & Development

Wilkins, J., Pouliot, G., Foley, K., Appel, W., Pierce, T.	2018	The impact of US wildland fires on ozone and particulate matter: A comparison of measurements and CMAQ model predictions from 2008 to 2012	International J. of Wildland Fire
An, Q., Zhang, H., Wang, Z., Liu, Y., Xie, B., Liu, Q., Wang, Z., Gong, S.	2019	The development of an atmospheric aerosol/chemistry-climate model, BCC_AGCM_CUACE2.0, and simulated effective radiative forcing of nitrate aerosols	J. of Advances in Mod. Earth Systems
Baker, K., Kopplitz, S., Foley, K., Avey, L., Hawkins, A.	2019	Characterizing grassland fire activity in the Flint Hills region and air quality using satellite and routine surface monitor data	Science of the Total Environ., 659, 1555-1566
Battye, W., Bray, C., Aneja, V., Tong, D., Lee, P., Tang, Y.	2019	Evaluating ammonia (NH ₃) predictions in the NOAA National Air Quality Forecast Capability (NAQFC) for eastern North Carolina using ground level and satellite measurements	J. of Geophy. Res. Atmospheres
Beachley, G., Rogers, C., Lavery, T., Walker, J., Puchalski, M.	2019	Long-term trends in reactive nitrogen deposition in the United States	Magazine for Environ. Managers, July 2019
Bytnerowicz, A., Fenn, M., Cisneros, R., Schweizer, D., Burley, J., Schilling, S.	2019	Nitrogenous air pollutants and ozone exposure in the central Sierra Nevada and White Mountains of California - Distribution and evaluation of ecological risks	Science of the total Environ., 654, 604-615
Campbell, P., Bash, J., Spero, T.	2019	Updates to the Noah Land Surface Model in WRF-CMAQ to improve simulated meteorology, air quality, and deposition	J. of Advances in Mod. Earth Systems, 11, 231-256
Edgerton, E., Hsu, Y.-M., White, E., Landis, M., Fenn, M.,	2019	Ambient concentrations of total deposition of inorganic sulfur, inorganic nitrogen and base cations in the Athabasca oil sands region	Sci. of the Total Environ.
Feinberg, A., Sukhodolov, T., Luo, B.-P., Rozanov, E., Winkel, L., Peter, T., Stenke, A.	2019	Improved tropospheric and stratospheric sulfur cycle in the aerosol-chemistry-climate model SOCOL-AERv2	Geoscientific Model Development

Feng, J., Chan, E., Vet, R.	2019	Air quality in the eastern United States and eastern Canada for 1990-2015: 25 years of change in response to emission reductions of SO ₂ and NO _x in the region	Atmos. Chem. and Phys. Discussions
Foley, T., Betterton, E.	2019	Nitrogen dry deposition to Lake Superior and Lake Michigan	J. of Great Lakes Research
Gong, C., Lei, Y., Ma, Y., Yue, X., Liao, H.	2019	Ozone-vegetation feedback through dry deposition and isoprene emissions in a global chemistry-carbon-climate model	Atmos. Chem. and Physics
Hamlin, Q., Kendall, A., Martin, S., Whitenack, H., Roush, J., Hannah, B., Hyndman, D.	2019	Spatially explicit nutrient source estimate map (SENSEmap): Quantifying landscape nutrient inputs	JGR Biogeosciences
Kennedy, C., Buda, A., Bryant, R.	2019	Amounts, forms, and management of nitrogen and phosphorus export from agricultural peatlands	Hydrological Processes
Neufeld, H., Sullins, A., Sive, B., Lefohn, A.	2019	Spatial and temporal patterns of ozone at Great Smoky Mountains National Park and implications for plant responses	Atmos. Environ.:X, 2
Patel, K., Fernandez, I., Nelson, S., Gruselle, M.-C., Norton, S., Weiskittel, A.	2019	Forest N dynamics after 25 years of whole watershed N enrichment: The Bear Brook Watershed in Maine	Soil Science of American Journal
Pavlovskii, I., Hayashi, M., Cey, E.	2019	Estimation of depression-focussed groundwater recharge using chloride mass balance: problems and solutions across scales	Hydrogeology Journal, 1-16
Puchalski, M., Walker, J., Beachley, G., Zondlo, M., Benedict, K., Grant, R., Schichtel, B., et al.	2019	Need for improved monitoring of spatial and temporal trends of reduced nitrogen	Magazine for Environ. Managers, July 2019
Pye, H., Nenes, A., ALexander, B., Ault, A., et al.	2019	The acidity of atmospheric particles and clouds	Atmos. Chemistry & Physics

Sarwar, G., Gantt, B., Foley, K., Fahey, K., et al.	2019	Influence of bromine and iodine chemistry on annual, seasonal, diurnal, and background ozone: CMAQ simulations over the Northern Hemisphere	Atmos. Environ.
Schwede, D., Cole, A., Vet, R., Lear, G.	2019	Ongoing U.S.-Canada collaboration on nitrogen and sulfur deposition	The Magazine for Environmental Managers, June 2019
Silvern, R., Jacob, D., Mickley, L., Sulprizio, M., Travis, K., Marais, E., Cohen, R., Laughner, J., et al.	2019	Using satellite observations of tropospheric NO ₂ columns to infer long-term trends in US NO _x emissions: the importance of accounting for the free tropospheric NO ₂ background	Atmos. Chem. Phys. 19, 8863-8878
Stelzer, R.S., Parr, T.B., Coulibaly, M.	2019	A ten year record of nitrate retention and solute trends in a Wisconsin sand plains stream: temporal variation at multiple scales	Biogeochemistry
Strode, S., Ziemke, J., Oman, L., Lamsal, L., Olsen, M., Liu, J.	2019	Global changes in the diurnal cycle of surface ozone	Atmos. Environment, 199, 323-333
Travis, K.R., Jacob, D.J.	2019	Systematic bias in evaluating chemical transport models with maximum daily 8 h average (MDA8) surface ozone for air quality applications: a case study with GEOS-Chem v9.02	Geosci. Model Dev. 12, 3641-3648
Walker, J., Beachley, G.	2019	Evolution of monitoring and modeling of reactive nitrogen deposition in the United States	Magazine for Environ. Managers, July 2019
Walker, J.T., Beachley, G., Zhang, L., Benedict, K., Sive, B., Schwede, D.	2019	A review of measurements of air-surface exchange of reactive nitrogen in natural ecosystems across North America	Sci. of the Total Environ.