

BIOGRAPHICAL SKETCH FOR ANKUR R DESAI

Ankur R Desai, Associate Professor

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RELEVANT EXPERTISE

Ankur Desai is an atmospheric scientist and ecosystem ecologist who studies regional biogeochemical and biophysical interactions with the past, present, and future climate system, land management, and terrestrial ecosystems, including temperate and tropical forests, boreal wetlands, and lakes, at local to global scales. He applies model-data fusion and advanced statistical data mining approaches to experimental observations, including extensive experience with eddy covariance flux towers, and ecosystem and atmospheric models.

PROFESSIONAL PREPARATION

Pennsylvania State University, Ph.D., Meteorology, 2006
University of Minnesota, M.A., Geography, 2000
Oberlin College, B.A., Environmental Studies and Computer Science (double major), 1997

PROFESSIONAL APPOINTMENTS

2011- Associate Professor, Dept. of Atmospheric & Oceanic Sciences, U. Wisconsin
2009- Faculty affiliate, Limnology and Marine Sciences, College of Engineering
2008- Faculty affiliate, Center for Climatic Research, Nelson Institute
2007-2011 Assistant Professor, Dept. of Atmospheric & Oceanic Sciences, U. Wisconsin
2006-2007 Postdoctoral Fellow, Advanced Study Program, NCAR
2002-2006 Graduate Research Assistant, Dept. of Meteorology, Pennsylvania State U.
2000-2001 Research Fellow, Dept. of Forest Resources, University of Minnesota
1998-2000 ICGC MacArthur Scholar Fellow, Dept. of Geography, University of Minnesota

RELEVANT PUBLICATIONS (BOLD DEONTES DESAI LAB AUTHORS)

Atilla, N., McKinley, G., Bennington, V., Baehr, M., Urban, N., DeGrandpre, M., **Desai, A.R.**, and Wu, C., 2011. Observed variability of Lake Superior pCO₂. *Limnology and Oceanography*, 53(3): 775-786, doi:10.4319/lo.2011.56.3.0775.

Buffam, I., Turner, M.G., **Desai, A.R.**, Hanson, P., Rusak, J., Lottig, N.R., Stanley, E.H., and Carpenter, S.R., 2011. Integrating aquatic and terrestrial components to construct a complete carbon budget for a north temperate lake district. *Global Change Biology*, 17(2): 1193-1211, doi:10.1111/j.1365-2486.2010.02313.x.

Desai, A.R., 2010. Climatic and phenological controls on coherent regional interannual variability of carbon dioxide flux in a heterogeneous landscape. *Journal of Geophysical Research-Biogeosciences*, 115: G00J02, doi:10.1029/2010JG001423.

Read, J.S., Hamilton, D.P., **Desai, A.R.**, Rose, K.C., MacIntyre, S., Lenters, J.D., Smyth, R.L., Hanson, P.C., Cole, J.J., Staehr, P.A., Rusak, J.A., Pierson, D.C., Brookes, J.D., Laas, A., and Wu, C.H., 2012. Lake-size dependency of wind shear and convection as controls on gas exchange. *Geophysical Research Letters*, 39, L09405, doi:10.1029/2012GL051886.

Vasys, V.N., Desai, A.R., McKinley, G.A., Bennington, V., Michalak, A.M., and Andrews, A.E., 2011. Influence of large lake carbon exchange on regional tracer transport

inversions. *Environmental Research Letters*, 6 034016 doi:10.1088/1748-9326/6/3/034016.

OTHER PUBLICATIONS (BOLD DEONTES DESAI LAB AUTHORS)

- Bagley, J.E., Desai, A.R.,** Dirmeyer, P., and Foley, J.A., 2012. Effects of land cover change on precipitation and crop yield in the world's breadbaskets. *Environmental Research Letters*, 7, 014009 doi:10.1088/1748-9326/7/1/014009.
- Grant, R.F., **Desai, A.R., Sulman, B.N.,** 2012. Modelling contrasting responses of wetland productivity to changes in water table depth. *Biogeosciences*, 9, 4215-4231, doi:10.5194/bg-9-4215-2012.
- Desai, A.R.,** Moore, D.J.P., Ahue, W., Wilkes, P.T.V., De Wekker, S., Brooks, B.G., Campos, T., Stephens, B.B., Monson, R.K., Burns, S., Quaife, T., Aulenbach, S., and Schimel, D.S., 2011. Seasonal pattern of regional carbon balance in the Central Rocky Mountains from the Airborne Carbon in the Mountains Experiment 2007. *Journal of Geophysical Research-Biogeosciences*, 116, G04009, doi:10.1029/2011JG001655.
- Desai, A.R.,** Helliker, B.R., Moorcroft, P.R., Andrews, A.E., and Berry, J.A., 2010. Interannual variability in regional carbon fluxes from top-down and bottom-up perspectives. *Journal of Geophysical Research-Biogeosciences*, 115: G02011, doi:10.1029/2009JG001122.
- Sulman, B.N., Desai, A.R., Schroeder, N.M.,** Ricciuto, D.M., Barr, A., Richardson, A.D., Flanagan, L.B., LaFleur, P.M., Tian, H., Chen, G., Grant, R.F., Poulter, B., Verbeeck, H., Ciais, P., Ringeval, B., Baker, I.T., Schaefer, K., Luo, Y., and Weng, E., 2012. Impact of hydrological variations on modeling of peatland CO₂ fluxes: results from the North American Carbon Program site synthesis. *Journal of Geophysical Research-Biogeosciences*, 117, G01031, doi:10.1029/2011JG001862.

SYNERGISTIC ACTIVITIES

- Associate Editor, *Journal of Geophysical Research, Biogeosciences*, 2011-2014
- Lead instructor and manager, Forest and Climate Leaders in Menominee and the Environment (For-CLIMATE), NSF-support field-based outreach course for Native American students at tribal college and high school
- Chair, American Meteorological Society (AMS), Agricultural and Forest Meteorology, Science Technical and Advisory Committee (STAC), 2010-2016
- Chair, National Ecological Observatory Network (NEON, Inc.), Fundamental Instrument Unit Working Groups (FIU-WG), 2010-
- Member, North American Carbon Program (NACP) Science Steering Group (SSG), 2010-2016