

## SHANNON N. KOPLITZ

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### EDUCATION

Current- **Ph.D. candidate, Harvard University, Dept. of Earth and Planetary Sciences**  
(Fall 2016) Thesis: *Air Quality in Southeast Asia: The growing threat of coal emissions and land use change fires to human health in a rapidly evolving region.*  
Advisors: Loretta J. Mickley and Daniel J. Jacob

March, 2013 M.A., Harvard University, Dept. of Earth and Planetary Sciences

June, 2011 M.S., Stanford University, Earth Systems Program

June, 2010 B.A., Stanford University  
Major: Human Biology (concentration in Environmental Science and Policy)  
Minor: Geological and Environmental Science

### PUBLICATIONS

- Koplitz, S.N.**, Mickley L.J., Marlier M.E., Buonocore J.J., Kim P.S., Liu T., Sulprizio M.P., DeFries R.S., Jacob D.J., Schwartz J., and Myers S.S. Public health impacts of the severe haze in Equatorial Asia in September-October 2015: A new tool for fire management to reduce downwind smoke exposure in the future, submitted to *Environmental Research Letters*.
- Koplitz, S.N.**, Jacob D.J., Sulprizio M.P., Myllyvirta L., and Reid C. Burden of disease from rising coal emissions in Southeast Asia. Expected submission date, March 2016.
- Koplitz, S.N.**, Mickley L.J., Jacob D.J., Kim P.S., Marlier M.E., DeFries R.S., and Myers S.S. Role of the Madden-Julian Oscillation during ENSO-neutral smoke events in Equatorial Asia: Implications for human health in the Malay Peninsula. Expected submission date, June 2016.
- Kim, P.S., Jacob, D.J., Mickley, L.J., **Koplitz, S.N.**, Marlier, M.E., DeFries, R.S., Myers, S.S., Chew, B.N. and Mao, Y.H. (2015). Sensitivity of population smoke exposure to fire locations in Equatorial Asia, *Atmospheric Environment*, 102, 11-17.
- Marlier M.E., DeFries R.S., Kim P.S., **Koplitz S.N.**, Jacob D.J., Mickley L.J., and Myers S.S. (2015). Fire emissions and regional air quality impacts from fires in oil palm, timber, and logging concessions in Indonesia, *Environmental Research Letters*, 10(8), 085005.
- Marlier M.E., DeFries R.S., Kim P.S., Gaveau D.L.A., **Koplitz S.N.**, Jacob D.J., Mickley L.J., Margono B.A., and Myers S.S. (2015). Regional air quality impacts of future fire emissions in Sumatra and Kalimantan, *Environmental Research Letters*, 10(5), 054010.

Marlier, M.E., DeFries, R.S., Pennington, D., Nelson, E., Ordway, E. M., Lewis, J., **Koplitz, S.N.** and Mickley, L.J. (2015). Future fire emissions associated with projected land use change in Sumatra, *Global Change Biology*, 21, 345-362.

## PRESENTATIONS

“Burden of disease from rising coal emissions in Asia.” International Symposium on Climate Change and Coal, Tokyo, Japan, May 2015 (**invited video presentation**).

“Burden of disease from rising coal emissions in Asia.” 7<sup>th</sup> International GEOS-Chem Conference, Cambridge, MA, May 2015.

“Role of the Madden-Julian Oscillation in severe smoke events over the Malay Peninsula.” 7<sup>th</sup> International GEOS-Chem Conference, Cambridge, MA, May 2015 (poster).

“Smoke from Sumatran fires: consequences of land-use change and anomalous meteorology for human health in Equatorial Asia.” American Geophysical Union Fall Meeting, San Francisco, CA, December 2014.

“Smoke pollution in Equatorial Asia and implications for public health.” 6<sup>th</sup> International GEOS-Chem Conference, Cambridge, MA, May 2013 (poster).

## MEDIA COVERAGE

January 27, 2016 Eco-Business: “Vietnam moves towards a coal-free future.” V. Shah:  
<http://www.eco-business.com/news/vietnam-moves-towards-a-coal-free-future/>

October 2, 2015 Vietnam News: “Air pollution from coal-fired power plants kills thousands.”  
Vietnam News Staff: <http://vietnamnews.vn/society/276556/air-pollution-from-coal-fired-power-plants-kills-thousands.html>

August 18, 2015 Jakarta Globe: “Harvard Study Reveals Premature Death Risks From Indonesia’s Expanding Use of Coal Power.” Jakarta Globe Staff:  
<http://jakartaglobe.beritasatu.com/news/harvard-study-reveals-premature-death-risks-indonesias-expanding-use-coal-power/>

## RESEARCH EXPERIENCE

- 2011- present Graduate student with Loretta J. Mickley and Daniel J. Jacob, Atmospheric Chemistry Modeling Group, Harvard University
- Summer 2012 Fully funded participant in Community Earth System Model (CESM) workshop at National Center for Atmospheric Research (NCAR)
- 2008, 2010 Summer Research Assistant in atmospheric chemistry laboratory  
Supervisor: Professor Joelle Underwood, Loyola University, New Orleans LA

## **TEACHING EXPERIENCE**

Teaching assistant or teaching fellow for the following classes.

Spring 2015 *The Fluid Earth*, Harvard University  
Fall 2012 *Atmospheric Chemistry and Physics*, Harvard University  
Winter 2011 *Earth Systems History*, Stanford University

## **SYNERGISTIC ACTIVITIES**

2014-2015 Mentor for Harvard undergraduates conducting honors research (Matthew Pasiquini '16, D.T. Wang '16)  
2014-2015 Co-leader of biweekly research group Graduate Student Forum  
2013-2014 Co-leader of biweekly Atmospheric Chemistry Journal Club  
2013-2014 Non-resident tutor/LGBT advocate (Adams House, Harvard University)  
2013-2014 Lead instructor for all-day softball clinics at Northfield Mount Hermon School  
Fall 2013 Participant in "Telling Your Story" outreach program at Horace Mann School for the Deaf and Hard of Hearing (4<sup>th</sup> and 5<sup>th</sup> grade)  
2013 Co-organizer of Ozone Garden Outreach (Harvard University)  
2011-2012 Co-organizer of Harvard University GeoClub St. Barbara's Day

## **PROFESSIONAL MEMBERSHIPS**

American Geophysical Union, Earth Science Women's Network, Harvard Graduate Women in Science and Engineering

## **PERSONAL**

Citizenship: United States