

Deirdre Smith

Department of Geography and Anthropology
Louisiana State University
151 Howe-Russell Geoscience Complex, Baton Rouge, LA 70803
dsmi229@lsu.edu – (714) 582-9236

EDUCATION

- [2020] Ph.D.—Geography and Anthropology.
Louisiana State University, Baton Rouge, Louisiana.
- [2016] M.S.—Geography and Anthropology.
Louisiana State University, Baton Rouge, Louisiana
- [2011] B.S.—Geography and Anthropology.
California State Polytechnic University, Pomona, Pomona, California.

TEACHING APPOINTMENTS

Full-Time Instructor

- [2020/21] *Louisiana State University*
Physical Geography: Land and Water Surfaces, Plant and Animal Realms
Human Geography: Africa and Asia (2)
Human Geography: Americas and Europe

Instructor of Record

- [Fall, 2018] *Louisiana State University*
Human Geography of Africa and Asia

Teaching Assistantships

- [Spring, 2016] *Louisiana State University*
Physical Geography and Atmosphere
- [Spring, 2015] *Louisiana State University*
GIS: Graduate Lab Assistant
- [Summer, 2010] *California State Polytechnic University, Pomona*
English-language immersion: Eastern China

RESEARCH ACTIVITIES

Graduate Research

- [2016-2020] *Louisiana State University*
NASA EPSCoR project: “TETRA-II: An Experiment to Study Terrestrial Gamma Flashes and the Role of Energetic Particle Acceleration in Lightning and Severe Weather Events”
PI: Michael Cherry, Physics and Astronomy, LSU
Advisor and Co-PI: Jill Trepanier, Geography and Anthropology, LSU
Focus: Spatiotemporal and physical analysis of lightning, thunderstorms, and terrestrial gamma-ray flashes detected by TETRA II.

Field Research

- [2015] *Centro Modelado Científico (CMC), Venezuela*
Location: Maracaibo Basin, Venezuela (April)
Principal Investigator: Angel Munoz, CMC and International Research Institute for Climate and Society, Columbia University
Focus: “Catatumbo Lightning” phenomenon—regional human perceptions and atmospheric correlations
- [2011] *Independent*
Location: Santiago, Chile (Aug 2—Dec 14)
Focus: Expatriate demographics of Santiago suburban regions
- [2010] *Cal State Polytechnic University, Pomona*
Location: Eastern Bolivia (Aug 9—Sept 8)
Focus: Climate adaptation methods used by rural Bolivian subsistence farmers

PUBLICATIONS

Smith, D., J. C. Trepanier, Pleshinger, D. J., S. T. Alnussirat, M.C. Cherry, (2020), Thunderstorms producing spheric-geolocated gamma-ray flashes detected by TETRA-II. *Journal of Geophysical Research: Atmospheres*. (In Review).

Pleshinger, D. J., S. T. Alnussirat, J. Arias, S. Bai, Y. Banadaki, M. L. Cherry, J. Hoffman, E. Khosravi, M. Legault, R. Rodriguez, **D. Smith**, E. Toro, J. C. Trepanier, and A. Sunda-Meya (2019), Gamma ray flashes produced by lightning observed at ground level by TETRA-II. *Journal of Geophysical Research: Space Physics*, 124.
<https://doi.org/10.1029/2019JA026820>

Muñoz, Ángel G., A. Núñez, X. Chourio, J. Díaz-Lobatón, R. Márquez, P. Moretto, M. Juárez, **D. Smith** and others. "Reporte Final de la Expedición Catatumbo: Abril 2015." *Reporte Público 1000: 01-2015*

EXTERNAL RESEARCH FUNDING

- [2019] NASA LaSPACE (not funded) \$32,000
“Enhancing Extreme Weather Coverage in Under-Represented At-Risk Communities in Baton Rouge, Louisiana”
Principal Investigator: Jill Trepanier
Proposal Authors: **Deirdre Smith**, Jill Trepanier

SCHOLARSHIPS, AWARDS, AND GRANTS

- [2020] Graduate Travel Award Louisiana State University: Annual Meeting, American Association of Geographers, Denver, CO.
- [2019] Evelyn Pruitt Full-Tuition Scholarship: Louisiana State University
Research Travel Grant: TETRA II--NASA. Annual Meeting, American Geophysical Union, San Francisco, CA.
- [2018] Graduate Teaching Workshop Grant, Louisiana State University
- [2017] National Centers for Atmospheric Research: Community Earth System Workshop Tutorial, Boulder, CO.
Research Travel Grant: TETRA II--NASA. Annual Meeting, American Geophysical Union, New Orleans, LA.
Research Travel Grant: TETRA II--NASA. American Meteorological Society Annual Meeting, New Orleans, LA.
Graduate Travel Award Louisiana State University: Annual Meeting, American Association of Geographers, Boston, MA.
- [2016] Graduate Travel Award Louisiana State University: Annual Meeting, American Meteorological Society, Seattle, WA.
Graduate Travel Award Louisiana State University: Annual Meeting, American Association of Geographers, San Francisco, CA.
- [2015-16] Climate Certificate Full-Tuition Scholarship: Louisiana State University

CONFERENCE PROCEEDINGS

- [2020] Geographic Distribution of Terrestrial Gamma-ray Flashes. American Association of Geographers. **Deirdre Smith**. Annual Meeting, American Association of Geographers, 6-10 April, 2020 Denver, CO.

- [2019] A Meteorological Examination of Sferic-Associated X-ray and Gamma-ray Flashes Detected by TETRA-II. **Deirdre Smith**, Jill Trepanier, Samer Al-Nussirat, Michael Cherry, Donald J Pleshinger. Annual Meeting, American Geophysical Union, 9-13 December 2019, San Francisco, CA.
- [2018] The TETRA-II Experiment to Observe Terrestrial Gamma Flashes at Ground Level – Analysis of Nearby Thunderstorm Activity and Comparison with Lightning Data. **Deirdre Smith**, Jill Trepanier, Samer Al-Nussirat, Michael Cherry, Donald J Pleshinger. Annual Meeting, Southwestern American Association of Geographers, 9-12 October, Baton Rouge, LA
- [2017] The TETRA-II Experiment to Observe Terrestrial Gamma Flashes at Ground Level – Analysis of Nearby Thunderstorm Activity and Comparison with Lightning Data. **Deirdre Smith**, Jill Trepanier, Samer Al-Nussirat, Michael Cherry, Donald J Pleshinger. Annual Meeting, American Geophysical Union, 11-15 December. New Orleans, LA
- Lightning Flash Rate in the Lake Maracaibo Basin, Venezuela Related to Sea Surface Temperatures and Tropospheric Air Flow. **Deirdre Smith**, Jill Trepanier, Angel Munoz. Annual Meeting, American Association of Geographers, 5-9 April, Boston, MA.
- [2016] Lightning Flash Rate in the Lower Maracaibo Basin, Venezuela Related to Sea Surface Temperatures and Tropospheric Airflow. **Deirdre Smith**, Jill Trepanier, Angel Munoz American Meteorological Society: Annual Meeting—Seattle, WA
- Three Minute Thesis Presentation Participant: Louisiana State University
Lightning hazard risks in rural Venezuela, **Deirdre Smith**.
- Assessing relationships between lightning flash-rate density in northwestern Venezuela, upper-level wind flow, and sea surface temperatures
Authors: **Deirdre Smith**, Jill Trepanier, Angel Munoz. American Association of Geographers: Annual Meeting—San Francisco, CA
*Participant: Student Paper Competition Session, Climate Specialty Group
- [2015] Effects of El Niño on Lightning Presence in Northwestern Venezuela
Authors: **Deirdre Smith**, Jill Trepanier, Angel Munoz. Annual Meeting, American Association of Geographers, 29 March – 2 April, Chicago, IL.
- [2011] Climate Change and Subsistence Agriculture in Developing Nations
Authors: **Deirdre Smith**. Annual Meeting, American Association of Geographers, 12-16 April, Seattle, WA. Undergraduate Session.

PROFESSIONAL DEVELOPMENT

- [2019] Online Course: South Central Climate Adaptation Science Center; OK
“Climate Models, Downscaling, and Assessments” (Aug 26—Sept 11)
- [2017] Tutorial: National Centers for Atmospheric Research; Boulder, Colorado
Climate simulation lectures and practical data analysis sessions utilizing
Community Earth System Model (Aug 14-19)

Pedagogy Trainings/Workshops

- [2020] Louisiana State University
Communication Across the Curriculum: Online Training Series (June-July)
- [2019] Louisiana State University
“Designing and Teaching Accessible Courses” (July 22—Aug 26)
“Applying the Backwards Design Framework” (May 20)
“Deprogramming the Passive Learner” (Feb 19)
- [2018] Louisiana State University
“Feedback Strategies: Cultivating Successful Undergraduates in Communication
Intensive Courses” (Aug 10)

UNIVERSITY SERVICE

- [2019] Gamma Theta Upsilon Honors Society: Louisiana State University
Board Member, Vice President (12 month appointment)
- Coastal Louisiana Chapter of the American Meteorological Society
Board Member, Secretary/Treasurer (12 month appointment)
- [2018] Gamma Theta Upsilon Honors Society: Louisiana State University
Board Member, Vice President (12 month appointment)
- [2017] Undergraduate Research Exposition: Louisiana State University
Volunteer, Poster Presentation Judge (Nov 17)
- National Geographic Geography Bee Volunteer: Baton Rouge, LA
Volunteer, Question Moderator (March 31)
- [2016] Astronomy Day: Highland Park Observatory, Baton Rouge, LA
Exhibitor, Weather Demonstrations for K-12 (May 13)

National Geographic Geography Bee Volunteer: Baton Rouge, LA
Volunteer, Question Moderator (April 1)

[2015] Graduate Geography and Anthropology Society: Louisiana State University
Board Member, Secretary (12 month appointment)

American Association of Geographers Review of Books
Assistant to Editor: Kent Mathewson (9 month appointment)

PROFESSIONAL MEMBERSHIPS

American Association of Geographers

American Geophysical Union

American Meteorological Society

Coastal Louisiana Chapter of the American Meteorological Society

Conference of Latin American Geography

Gamma Theta Upsilon--Geography Honor Society, Louisiana State University

Southeastern & Southwestern Divisions of the Association of American Geographers