

RILEY X. BRADY

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Institute of Arctic and Alpine Research, University of Colorado

Campus Box 450 ◊ Boulder, CO 80309

EDUCATION

University of Colorado Boulder	<i>Boulder, CO</i>
Ph.D. in Atmospheric & Oceanic Sciences	<i>Expected 2021</i>
M.S. in Atmospheric & Oceanic Sciences	<i>2018</i>
University of South Carolina	<i>Columbia, SC</i>
B.S. in Marine Science (Emphasis in Physical Oceanography)	<i>2016</i>
<i>Magna Cum Laude</i> , Honors College, Phi Beta Kappa	
Otto-Friedrich Universität Bamberg	<i>Bamberg, Germany</i>
Minor in German Studies	<i>2014</i>

RESEARCH APPOINTMENTS

University of Colorado Boulder	<i>Boulder, CO</i>
Graduate Research Assistant, Institute of Arctic and Alpine Research	<i>2016–Present</i>
Los Alamos National Lab	<i>Los Alamos, NM</i>
Graduate Research Assistant, Theoretical Division	<i>Summer 2018</i>
University of South Carolina	<i>Columbia, SC</i>
Undergraduate Research Assistant, Ecosystem Oceanography & Climate Change Lab	<i>2012–2016</i>
NOAA Earth System Research Lab	<i>Boulder, CO</i>
NOAA Hollings Scholar, Physical Sciences Division	<i>Summer 2015</i>
UNC Institute of Marine Sciences	<i>Morehead City, NC</i>
NSF REU Intern, Coastal Fisheries Ecology Lab	<i>Summer 2013</i>

HONORS AND AWARDS

National	
Computational Science Graduate Fellow, Department of Energy	<i>2016</i>
Barry M. Goldwater Scholar, United States Congress	<i>2015</i>
Ernest F. Hollings Scholar, NOAA	<i>2014</i>
Institutional	
Algernon Sydney Sullivan Award, U. South Carolina (3 recipients)	<i>2016</i>
Outstanding Undergraduate in Marine Science, U. South Carolina (2 recipients)	<i>2016</i>
Outstanding Senior Award, U. South Carolina	<i>2016</i>
Magellan Research Scholar, South Carolina Office of Undergraduate Research	<i>2014</i>
Science Undergraduate Research Fellow, South Carolina Honors College	<i>2012</i>
McNair Scholar, University of South Carolina (Valued at \$130,800)	<i>2012</i>
Meetings	
1 st Place, Oceanography, Earth System and Space Science Poster Conference	<i>2016</i>
Best Student Talk, Eastern Pacific Ocean Conference	<i>2015</i>
Outstanding Student Presentation Award, Ocean Sciences Meeting	<i>2014</i>
1 st Place, Morning Oral STEM Session, South Carolina Discovery Day	<i>2013</i>

PUBLICATIONS

Peer-reviewed:

1. **Brady, RX**, NS Lovenduski, MA Alexander, M Jacox, and N Gruber (2018), On the role of climate modes in modulating the air-sea CO₂ fluxes in Eastern Boundary Upwelling Systems, *Biogeosciences Discussions*. In review. [\[Discussion\]](#)
2. **Brady, RX**, MA Alexander, NS Lovenduski, and RR Rykaczewski (2017), Emergent anthropogenic trends in California Current upwelling, *Geophys. Res. Lett.*, 44, 50445052, doi:10.1002/2017GL072945. [\[PDF\]](#)

SKILLS & INTERESTS

Computer Languages	Python, MATLAB, shell scripting, C/C++ (familiar), OpenMP (familiar)
Python Packages	xarray, pandas, numpy, matplotlib, cartopy, seaborn
Data & Databases	CESM Large Ensemble, CMIP5 Project, NetCDF, NCO, CDO
Design	ParaView, HTML, CSS, L ^A T _E X, Vector Graphics
Foreign Language	English (native), German (advanced)
Music	acoustic guitar, blues harmonica, vocals
Hobbies	trail running, road cycling, rock climbing, hiking, camping

PROFESSIONAL ACTIVITIES, OUTREACH, & MENTORING

- Referee for JGR: Oceans [\[Publons\]](#)
- Member of the Climate Fortnite Squad [\[Ice Ages\]](#)
- Skype a Scientist [\[Link\]](#)
- Judge for SOARS 2017 Poster Conference
- Programming mentor for Gabriela Negrete-Garcia (SOARS 2017)

TEACHING

University of Colorado Boulder	
Guest Lecturer, Our Changing Climate (Latent and Sensible Heat)	<i>Fall 2018</i>
University of South Carolina	
Co-Lecturer, University 101 (20 students)	<i>Fall 2016</i>

SELECTED PRESENTATIONS

Conferences:

1. Brady, RX, NS Lovenduski, MA Alexander, MG Jacox, and N Gruber. On the role of climate modes in modulating the air-sea CO₂ fluxes in Eastern Boundary Upwelling Systems. 12th Graduate Climate Conference: Pack Forest, WA. November 2018. (Talk)
2. Brady, RX, NS Lovenduski, MA Alexander, MG Jacox, and N Gruber. What controls the variability of CO₂ fluxes in Eastern Boundary Upwelling Systems? Ocean Sciences Meeting: Portland, OR. February 2018. (Talk) [\[Slides\]](#)
3. Brady, RX and NS. Lovenduski. CO₂ flux variability in Eastern Boundary Upwelling Systems. 10th International Carbon Dioxide Conference: Interlaken, Switzerland. August 2017. (Poster) [\[PDF\]](#)
4. Brady, RX, RR Rykaczewski, and MA Alexander. Emergence of anthropogenic trends in California Current upwelling in the presence of internal climate variability. CESM Workshop: Breckenridge, CO. June 2016. (Talk) [\[Slides\]](#)

5. Brady, RX, RR Rykaczewski, and MA Alexander. Emergence of anthropogenic trends in California Current upwelling in the presence of internal climate variability. Ocean Sciences Meeting: New Orleans, LA. February 2016. (Poster) [\[PDF\]](#)
6. Brady, RX, RR Rykaczewski, and MA Alexander. The influence of natural variability on future California Current upwelling. AGU Fall Meeting: San Francisco, CA. December 2015. (Talk) [\[Slides\]](#)
7. Brady, RX, MA Alexander, and RR Rykaczewski. Quantifying natural and anthropogenic variation in California Current upwelling. Eastern Pacific Ocean Conference: South Lake Tahoe, CA. September 2015. (Talk) [\[Slides\]](#)
8. Brady, RX, and RR Rykaczewski. Consequences of changing high-pressure zones on future coastal upwelling. Ocean Sciences Meeting: Honolulu, HI. February 2014. (Poster) [\[PDF\]](#)

Invited:

1. Brady, RX, M Maltrud, P Wolfram, and NS Lovenduski. Southern Ocean Carbon Hotspots in E3SM. Climate, Ocean, and Sea Ice Modeling (COSIM) Team: Los Alamos, NM. August 2018. (Talk)
2. Brady, RX, RR Rykaczewski, and MA Alexander. Emergence of Anthropogenic Trends in California Current Upwelling in the Presence of Natural Climate Variability. NCAR Oceanography Section: Boulder, CO. March 2016. (Talk)