

**Chris Houser**  
Dean, Faculty of Science, University of Waterloo  
Professor, Department of Earth, and Environmental Science  
Email: [chouser@uwaterloo.ca](mailto:chouser@uwaterloo.ca)

## EDUCATION

- Ph.D.** Scarborough College Coastal Research Group  
Department of Geography, University of Toronto at Scarborough  
September 1999 – June 2003  
*Thesis:* Feedback mechanisms in the morphodynamics of multiple-barred nearshores  
*Griffith Taylor Award*
- M.Sc.** Department of Geography, University of Guelph  
September 1997 – May 1999  
*Thesis:* Atmospheric emission of PM<sub>10</sub> from clay-crustured surfaces by saltation abrasion  
*Governor General's Academic Gold Medal*
- B.Sc.** Environmental Science, Social & Applied Human Sciences, University of Guelph  
September 1993 – May 1997  
*Area of Emphasis:* Hydrology

### Administrative Courses

- Centre for Higher Education Research and Development (CHERD)  
Senior University Administrators Course (SUAC)  
Winnipeg, June 2019
- Council for Advancement and Support of Education (CASE)  
Advanced Development for Deans and Academic Leaders  
Phoenix, January 2020
- Canadian Council for the Advancement of Education (CCAEE)  
Development for Deans  
Toronto, November 2022
- Council for Advancement and Support of Education (CASE)  
Advanced Development for Deans and Academic Leaders  
Chicago, November 2024

## ADMINISTRATIVE POSITIONS

### Dean of Science, July 2023-present

- Faculty of Science, University of Waterloo**
- Budget:** ~\$115,000,000 (2023/24 academic year)
- Enrolment:** 5460 Undergraduate Students, 583 Graduate Students (Fall 2024)
- Faculty:** 224 permanent faculty lines (filled and open budget lines)
- Staff:** 236 academic and research staff (filled and open budget lines)

Interim Vice President for Research and Innovation  
Temporary secondment for September 2022-June 2023  
Office of the Vice President Research and Innovation, University of Windsor

**Dean of Science, July 2016- 2023**

**Renewed for 2<sup>nd</sup> Term: July 2021**

**Faculty of Science, University of Windsor**

**Budget:** ~\$72,000,000 (2022/23 academic year)

**Enrolment:** 2777 Undergraduate Students, 1296 Graduate Students (Fall 2022)

**Faculty:** 150 permanent faculty lines (filled and open budget lines)

**Staff:** ~75 academic and research staff

**Associate Dean for Academic Affairs and Faculty Development, Sept. 2014-June 2016**

College of Geosciences, Texas A&M University

***Direct and Indirect Reports***

Senior Academic Advisor II for College of Geosciences

6 Academic Advisors of Undergraduate and Graduate programs

Director of Recruitment and Retention

High Impact Programs Coordinator

**Budget:** \$250,000 base budget + \$410,000 salaries for direct and indirect reports

**Global Faculty Ambassador, September 2012- June 2016**

Office of the Provost, Texas A&M University

**Undergraduate Director, September 2013-2014**

Department of Geography, Texas A&M University

**NSF REU Site Director: Ecohydrology of a Tropical Montane Forest, 2010-2013**

Soltis Center for Research and Education, Costa Rica (<http://costaricareu.tamu.edu/>)

- Administrator of an interdisciplinary REU program at the Soltis Center for Research and Education in Central Costa Rica involving 10 students per year mentored by 12 faculty from 5 departments and 3 colleges

**Graduate Director, January September 2004-July 2007**

Department of Environmental Science, University of West Florida

- Responsible for the management of a new graduate (MS) program (started August 2004) at the University of West Florida that grew to include 18 thesis track students and 27 non-thesis track students by July 2007

**ACADEMIC POSITIONS**

**Professor, July 2023-present**

**Department of Earth and Environmental Science**

**Member: Water Institute**

**Faculty of Science, University of Waterloo**

**Professor, July 2016-June 2023**

**School of the Environment**

**Member: Great Lakes Institute for Environmental Research (GLIER)**

**Faculty of Science, University of Windsor**

**Professor, January 2016- June 2016**

Department of Geography, Texas A&M University

Department of Geology and Geophysics, Texas A&M University

**Associate Professor, September 2011 – January 2016**

Department of Geography, Texas A&M University

Department of Geology and Geophysics, Texas A&M University

**Assistant Professor, September 2007 – August 2011**

Department of Geography, Texas A&M University

**Assistant Professor, September 2004 – August 2007**

Department of Environmental Studies, University of West Florida

**Adjunct Professor, 2003-2012**

Department of Geography, University of Victoria

**Associate Lecturer, June 2003- August 2004**

Department of Environmental Science, Royal Roads University

**Postdoctoral Fellow (October 2003 - September 2004)**

Geological Survey of Canada- Pacific Geoscience Centre

NSERC Postdoctoral Fellowship in a Canadian Government Laboratory (\$40,800)

**Doctoral Candidate/Graduate Research Associate (June 1999 – October 2003)**

Scarborough College Coastal Research Group, University of Toronto at Scarborough

Natural Sciences and Engineering Research Council PGS (A) Award (\$34,600)

Natural Sciences and Engineering Research Council PGS (B) Award (\$38,200)

William G. Dean Graduate Scholarship (\$15,000)

**RESEARCH AND TEACHING GRANTS**

**Research Grants (Total: >\$2,600,00 CDN awarded)**

Environment and Climate Change Canada. \$271,000. Engaging Citizen Scientists in Monitoring Coastal Change within the Great Lakes. C. Houser (PI), 2024-2028.

University of Twente & University of Waterloo Strategic Collaboration Grant. \$16,000. Nature-based engineering solutions for high latitude sandy coastlines under climate change. C. Houser (PI), 2024-2026.

Canadian Geological Foundation. \$30,000. Promoting the Geosciences by expanding the COASTIE citizen science monitoring and outreach program. C. Houser (PI), 2023-2025.

Natural Science and Engineering Research Council of Canada (NSERC). \$175,000. Discovery Grant. Semantic Models and Knowledge Graphs to Assess the Inter- and Intra-site variability of coastal barriers. C. Houser (PI), 2023- 2028.

Parks Canada. \$40,000. Monitoring of coastal response to shoreline armoring in Prince Edward Island National Park (PEINP). Houser (PI), 2023-2024.

Social Sciences and Humanities Research Council (SSHRC). \$35,585. UWill Discover Sustainable Futures 2023. Brunet (PI), Calarco, Houser, Duarte. 2023-2024.

Faculty of Engineering, Sustainability Grant. \$25,000. Impacts of Climate Change and land-use change on rainforest hydrology. Tirupati (PI), Houser. 2022-2023.

MITACS Accelerate. \$260,000. Socially and physically based surf warning system to improve

beach safety, C. Houser (PI), K. Souci, D. Menard. 2022-2025.

MITACS Accelerate. \$45,000. Quantifying Environmental and Anthropogenic Impacts on Coastline Instability at Point Pelee National Park (PPNP) and Peninsula, 2021-2022.

Natural Science and Engineering Research Council of Canada (NSERC). \$20,000. Communicating Science. C. Houser (PI), 2020-2021.

Natural Science and Engineering Research Council of Canada (NSERC). \$195,000. Discovery Grant. Analytical Reasoning and Fuzzy Cognitive Maps of Barrier Island Response to Natural and Anthropogenic Forcing. C. Houser (PI), 2017- 2022.

Natural Science and Engineering Research Council of Canada (NSERC). \$120,000. Accelerator Supplement. Analytical Reasoning and Fuzzy Cognitive Maps of Barrier Island Response to Natural and Anthropogenic Forcing. C. Houser (PI), 2017- 2020.

Department of Defense- Army Corps of Engineers. \$43,262 US. BAA 16-0012 for Perceptions, governance and stakeholder relationships along the Texas coast. C. Houser (PI), 2016.

National Science Foundation, \$15,444 US. Doctoral Dissertation Research: Assessing the Role of Geologic Framework on Barrier Island Geomorphology. C. Houser (PI), Wernette, P (PhD student), 2016.

Texas Sea Grant, \$19,990 US. Rip Current Survivor Story. C. Houser (PI), 2015.

Coastal Management Program, \$50,000 US. Geologic framework assessment of Follets Island. T. Dellapanna (PI), J. Fingus (Co-PI), C. Houser (Co-PI), 2014.

National Science Foundation, \$6,748 US. REU Supplement: Longitudinal study Role of Free and Forced Boundary Conditions on Beachface Evolution. C. Houser (PI), 2013.

National Science Foundation, \$60,636 US. Role of Free and Forced Boundary Conditions on Beachface Evolution. C. Houser (PI), 2013-2014, August 2013.

National Science Foundation, \$557,000 US. REU Site: Ecohydrology of a tropical montane cloud forest. C. Houser (PI) and A. Cahill, 2010-2013, January 2010.

Texas Sea Grant, \$137,900 US. Perception of the Rip Current Hazard on Galveston Island and South Padre Island. C. Houser (PI) and C. Brannstrom, 2012-2014.

National Science Foundation, \$71,437 US. Measurement of the Drag Coefficient for Seagrass at Tidal, Storm and Seasonal Scales. C. Houser (PI), 2012-2013.

National Science Foundation, \$11,970 US. REU Supplement: Longitudinal study of wave attenuation by seagrass. C. Houser (PI), 2012.

National Science Foundation, \$47,380 US. Synchronization of Beach-Dune Systems. C. Houser (PI), 2009-2011.

PADI Foundation, \$4,995 US. Undergraduate research assistant: Impact of boat wakes and wind waves on backbarrier seagrass beds. C. Houser (PI), 2011.

Florida Department of Transportation, \$94,859 US, Study of the effects of shoreline structures on nesting loggerhead turtles. M. Lamont (PI), C. Houser (Co-PI), 2011-2012.

National Park Service, \$25,800 US. Impact of oversand vehicles at Assateague Island National Seashore. C. Houser (PI), 2009-2011.

National Park Service, \$177,000 US. Geological Framework of Santa Rosa Island. C. Houser (PI), 2007-2011.

National Park Service, \$39,000 US. Boat wake erosion along the Savannah River. C. Houser (PI), 2008-2011.

NOAA: Florida Sea Grant, \$113,150 US. Rip current hazard at Pensacola Beach. C. Houser (PI), K Meyer-Arendt, 2008-2010.

Department of Defense, \$37,500 US. Hurricane Impacts at Eglin Air Force Base. C. Houser (PI),

2008-2012.

- NOAA: Texas Sea Grant, \$9,000 US Controls on sedimentation in salt marshes, D. Cairns (PI), C. Houser, 2009-2010.
- NOAA, \$84,000 US. Mortality associated with tropical cyclones, K. Meyer-Arendt (PI), C. Houser, 2008-2010.
- American Chemical Society, \$35,000 US. Sediment transport processes on the inner-shelf. C. Houser (PI), 2007-2008.
- NASA, \$36,000 US. Estimation of spectral waves for Orion Lander. J. Kaihtu (PI), C. Houser, 2007-2008.
- National Park Service, \$47,368 US. Mississippi Barrier Island Response to Hurricane Katrina. C. Houser (PI), 2005-2007.
- National Park Service, \$8,717 US. Evolution of Overwash Deposits Following Katrina. C. Houser (PI), 2005-2006.
- National Park Service, \$9,000 US. Evaluation of vegetation for dune building. C. Houser (PI), 2005-2006.
- University of West Florida Research Award, \$6,250 US. Wave Attenuation by Seagrass. C. Houser (PI), 2004-2005.
- University of West Florida Faculty Scholarly and Creative Activity Award, \$2,000 US. Beach-Dune Interaction at Pensacola Beach, Florida. C. Houser (PI), 2004-2005.

**Teaching Grants (Total: >\$2,600,000 CDN awarded)**

- Universities Canada Global Skills Mobility Grant. \$500,000. Go Global STEPs. C. Houser (PI), C. Busch, J. Bornais, B. Oakley. August 2021.
- Universities Canada Global Skills Mobility Grant. \$500,000. iWill Go Global. C. Busch (PI), C. Houser, J. Bornais, B. Oakley. August 2021.
- ecampus Ontario [NGG-NFP-CAN] Program: Virtual Learning Strategy. \$74,729. C. Houser (PI). May 2021.
- ecampus Ontario. Unifying Student Support through a Centralized Online Orientation Course: First Year Transition. C. Busch (PI), C. Houser, B. Natale, B. Oakley, C. Crump, Berryman, J., and Bornais, J.
- Ministry of Advanced Education and Skills Development, Province of Ontario. \$750,000. Extension Science. C. Houser (PI). May 2018.
- Dean of Faculties, Tier One Program, Texas A&M University, \$275,034 US. Aggies commit to undergraduate research and graduate leadership. C. Quick (PI), C. Houser, S. Datta and S. Bloomfield. July 2015.
- Dean of Faculties, Tier One Program, Texas A&M University, \$269,400 US. A vision for the Soltis Center: An interdisciplinary study abroad research program through integrated project delivery. J Kim (PI), J. Kang, S. Shafer, and C. Houser. July 2015.
- College of Geosciences, Texas A&M University, \$63,000 US. Engaging Students Early Through Field-Based Experiences in Introductory Courses. C. Houser (PI), Brannstrom, Ewers, Frauenfeld, Houser, Quiring, Roark, January 2012.
- College of Geosciences, Texas A&M University, \$61,000 US. Enhancing Research Intensive Capstone Courses with More Fieldwork. Collins (PI), Ewers, Frauenfeld, Houser, Quiring, Roark, January 2012.
- College of Geosciences, Texas A&M University. \$11,445 US. Weather stations for study abroad courses at the Soltis Center for Research and Education. C. Houser (PI), S. Quiring,

September 2010.

College of Geosciences, Texas A&M University, \$6,000 US. Personal GPS units for GEOL/GEOG 352 GPS in the Geosciences. C. Houser (PI), January 2010.

Texas A&M University Freshman Study Abroad Program, \$22,500 US. GEOG 203 Planet Earth Freshman Experience in Costa Rica. C. Houser, S. Quiring, March 2009.

Texas A&M University Freshman Seminar Series, \$2,000 US. The Science of Surfing. C. Houser, August-December 2009.

Texas A&M University International Programs Grant, \$1,686 US. Geomorphology at the Soltis Center. C. Houser, March 2009.

### **Other Awards**

Texas A&M University, Honors and Undergraduate Research. 2015 Betty M. Unterberger Award, May 2015.

Texas A&M University, Department of Geography, \$800. Meritorious Research Performance Bonus. September 2010.

College of Geosciences, Dean's Distinguished Achievement Award for Teaching, December 2013.

### **PUBLICATIONS (h index=40 from Google Scholar, January 2025)**

*Undergraduate student authors have double underline*

*Graduate Student authors have single underline*

### **Submitted Articles**

1. Menard, A.D., Pare, M., Chittle, L., Jaffri, S., Houser, C. (*Submitted*). Barriers to and Facilitators of Persistence Beliefs and Behaviors in Canadian Science Students. Submitted to *McGill Journal of Education*, December 2023.

### **Published and Accepted Articles**

1. Smith, A., Lehner, J., Wills, C., Johnson, G., and **Houser**, C. (*Accepted with Revisions*). Interpreting foredune response to SLR and storm activity: A comparative analysis of dune toe extraction methods. Accepted to *Science of the Total Environment*, January 2025.
2. **Houser**, C., Arbex, M., Gutierrez, A., and Salas, M. (*Accepted with Revisions*). Economic burden and costs of drowning in Costa Rica. Accepted to *Coastal Management*, November 2024.
3. Menard, A.D., Cavallo-Medved, D., Jaffri, S., and **Houser**, C. (*Accepted with Revisions*). Stress, coping, and campus program use among self-identified sexual minority group students in science. Accepted to *Canadian Journal of Higher Education*, December 2024.
4. Davidson-Arnott, R., Ollerhead, J., George, L., **Houser**, C., Bauer, B., Hesp, P., Walker, I., Delgado-Fernandez, I., and van Proosdij, D. (2024). Assessing the impact of Hurricane Fiona on the coast of PEI National Park and implications for the Effectiveness of beach-dune management policies. *Journal of Coastal Conservation*, 28, 52.
5. **Houser**, C., Carswell, A., Chittle, B., Johnson, G., Caschera, A., and Smith, A. (2024). Relative energy and perceived impacts of vessel-generated waves in fetch-limited environments. *Lake and Reservoir Management*, 40, 285-302.
6. Chittle, L., Laios, E., King, A., Hinch, I., Sood, S., Sorge, A., Milidrag, L., **Houser**, C., and Cavallo-Medved, D. (2024). A mixed-method investigation of faculty perspectives on the

benefits and challenges of engaging in student partnership activities in science. *International Journal for Students as Partners*, 8, 58-51.

7. George, E., Smith, A., O'Rourke, C., Cherry, N., Sfalcin, A., and **Houser**, C. (2024). Citizen Science monitoring of beach and dune erosion during Hurricane Fiona. *Physical Geography*, Online First.
8. Lehner, J., Wernette, P., Smith, A., and **Houser**, C. (2024). Short Communication: Multi-dimensional approach for the automatic extraction of barrier island morphology. Online First.
9. **Houser**, C., and Smith, A. (2024). Short Communication: Perception of beach safety at a destination beach on the Great Lakes. *Canadian Geographies*. Online first.
10. **Houser**, C., Lehner, J., Smith, A., and George, L. (2024). Short Communication: Perception of coastal barrier landscapes and implications for selection of landscape morphometrics. *Geomorphology*, 446, p.109003.
11. Chittle, L.; King, A., Sood, S., Hinch, I., **Houser**, C., and Cavallo-Medved, D. (2024). Fostering students as partners: A faculty-wide examination of science undergraduate and graduate students' perspectives of pedagogical partnerships. *The Canadian Journal for the Scholarship of Teaching and Learning*, 15 (2).
12. Chittle, L., Kustra, E., & **Houser**, C., (2023). A qualitative examination of science faculty members' perceptions of interdisciplinary curriculum development and refinement. *The Canadian Journal for the Scholarship of Teaching and Learning*, 14 (2).
13. Menard, D., Jafri, S., Soucie, K., Cavallo-Medved, D., **Houser**, C. (2024) Awareness, use and value of student support programs through the lens of science students, faculty, and staff. *Journal of Canadian Journal of the Science of Teaching and Learning*, 15(2).
14. Chittle, L., Coyne, P., King, A., Sood, S., **Houser**, C., & Cavallo-Medved, D. (2023). But do they agree? Examining differences in science faculty and student perceptions of student partnership values. *International Journal for Students as Partners*, 7(2).
15. Mulligan, R., Swatridge, L., Cantelon, J.A., Kurlyk, B.L., George, E., **Houser**, C. (2023) Local and remote storm surge contributions to local water levels in the Gulf of St. Lawrence during Hurricane Fiona. *Journal of Geophysical Research- Oceans*, 128, e2023JC019910.
16. Gharib, J., Smith, A., **Houser**, C., Martinez-Jimenez, M. (2023). Barrier breach recovery in a lacustrine environment: role of sediment supply and shoreline development. *Great Lakes Research*, 49, 769-777.
17. Lunardi, B., Smith, A., George, E., Lehner, J., and **Houser**, C. (2023). Intra- and Inter-site variability of the beach dune profile and vegetation line: Is there a scale-invariant profile? *Geomorphology*, 427, 108618.
18. **Houser**, C., Cavallo-Medved, D., and Bondy, M. (2023). Impact of the Preparation for Academic Success in Science (PASS) high school to university transition program. *The Canadian Journal for the Scholarship of Teaching and Learning*, 14. 1.
19. **Houser**, C., and Bornais, M. (2023). Student perceptions on the benefits and barriers to study abroad. *The Canadian Journal for the Scholarship of Teaching and Learning*, 14. 1.
20. **Houser**, C., Lehner, J., and Smith, A. (2022). The Field Geomorphologist in a time of Machine Learning and Artificial Intelligence. *Annals of the American Association of Geographers*, 112, 1260-1277.
21. **Houser**, C., Smith, A., Lehner, J., Lunardi, B., and George, L. (2022). Is there a representative and scale-invariant beach-dune profile? *Canadian Geographer*, 66, 783-796.
22. Smith, A., **Houser**, C. (2022). Perspectives on Great Lakes Coastal Management: A Case Study of the Point Pelee Foreland, Canada. *Ocean and Coastal Management*, 228, 106329.

23. Wernette, P., and **Houser**, C. (2022). Geological controls on rip currents. *Physical Geography*, 43, 145-162.
24. Corchis-Scott, R.,.....**Houser**, C.,.....McKay, M. (2021). Averting an outbreak of severe acute respiratory syndrome Coronavirus 2 (SARS-CoV-2) in a university residence hall through wastewater surveillance. *Microbiology Spectrum*, 9 (2), e00792-21.
25. Ellis, J., and **Houser**, C. (2022) Morphodynamic Systems: Beach and Dune Interaction. In: John F. Shroder (ed.) *Treatise on Geomorphology*. San Diego: Academic Press.
26. **Houser**, C., Arbex, M., and Trudeau, C. (2021). Short Communication: Economic Impact of Drowning in the Great Lakes Region of North America. *Ocean and Coastal Management*, 212, 105847.
27. Locknick, S., and **Houser**, C. (2021). Correspondence of beach user management, lifesaving strategies and rip currents: Implications for Beach Management. *Coastal Management*, 6, 598-616.
28. Gharib, J., Smith, A., and **Houser**, C., (2021) Barrier Beaches and Breaches: Historical Changes on the Point Pelee Foreland. *Journal of Great Lakes Research*, 47, 1554-1564.
29. Smith, A., **Houser**, C., Lunardi, B., Lehner, J., and George, E. (2021). Fuzzy Cognitive Modelling (FCM) in Coastal Geomorphology. In: John F. Schroder (ed.) *Treatise on Geomorphology*, In press. San Diego: Academic Press.
30. **Houser**, C., Smith, A., and Lilly, J. (2021). Note: Relative importance of recreational boat wakes on an inland lake. *Lake and Reservoir Management*, 37, 227-234.
31. **Houser**, C., Smith, A., Wernette, P., and Lehner, J. (2021). Spatial frequency analysis and information synthesis for understanding coastal barriers. In: John F. Shroder (ed.) *Treatise on Geomorphology*, In press. San Diego: Academic Press.
32. Ménard, D., Soucie, Jaffri, **Houser**, C., and Cavallo-Medved, D. (2021). Concordance (or discordance) between students and staff/faculty perceptions of student stress in science. *Research in Higher Education*, 12, <https://doi.org/10.5206/cjsotlracea.2021.1.10810>.
33. George, L., Smith, A., Lunardi, B., and **Houser**, C. (2021). Short Communication: Alongshore controls on the response and recovery of a beach-dune system to Hurricane Dorian at Brackley Beach, Prince Edward Island. *Geomorphology*, 384, 107721.
34. **Houser**, C., and Vlodarchyk, B. (2021). Impact of COVID-19 on drowning patterns in the Great Lakes. *Ocean and Coastal Management*, 205, p. 105570.
35. **Houser**, C., Smith, A., George, E., Lehner, J., and Lunardi, B. (2021). Loose and Limited Concepts: Using co-author network analysis to identify potential gaps in the understanding of barrier islands. *Journal of Coastal Research*, 37, 873-881.
36. Smith, A., **Houser**, C., Lehner, J., George, E., and Lunardi, B. (2020). Crowd-sourced identification of the beach-dune interface. *Geomorphology*, 367, 107321.
37. Wernette, P., Lehner, J., and **Houser**, C. (2020). What is 'real'? Identifying erosion and deposition in context of spatially variable uncertainty *Geomorphology*, 355, 107083.
38. Wernette, P., **Houser**, C., Lehner, J., and Weymer, B. (2020) Investigating the Impact of Hurricane Harvey and Driving on Beach-Dune Morphology. *Geomorphology*, 358, 107119.
39. **Houser**, C., Lehner, J., Wernette, P., and Cherry, N. (2019). Machine learning analysis of rip current warnings and rescues at Pensacola Beach, Florida. *Natural Hazards and Earth System Sciences*, 19, 2541-2549.
40. **Houser**, C., Vlodarchyk, B., and Wernette, P. (2019) Short Communication: Public Interest in Rip Currents Relative to other Natural Hazards: Evidence from Google Search Data. *Natural Hazards*, 97, 1395-1405.



41. Vlodarchyk, B., Olivito, A., and **Houser**, C. (2019) Spatial and temporal variation of surf drownings in the Great Lakes: 2010-2017. *Journal of Coastal Research*, Online First.
42. Barrineau, P., Dobrev, I., Bishop, M.P., and **Houser**, C. (2019). Deconstructing aeolian landscapes. *Catena*, 174, 452-468.
43. Wernette, P., C. **Houser**, B. Weymer, M.P. Bishop, M. Everett, and B. Reece. (2018) Long-range dependence in framework geology: Implications for barrier island resiliency. *Earth Surface Dynamics*, 6, 1139-1153.
44. Menard, A.D., **Houser**, C., Brander, R.W., Trimble, S., and Scaman, A. (2018) The psychology of beach users: importance of confirmation bias, action, and intention to improving rip current safety. *Natural Hazards*, 94, 953-973.
45. Clifford, K., M., Brander, R.W., Trimble, S., and **Houser**, C. (2018) Beach safety knowledge and understanding of visiting international study abroad students to Australia. *Tourism Management*, 69, 487-497.
46. **Houser**, C. (2018) ESEX Communication: Barrier Response to Sea Level Rise and Storms. *Earth Surface Processes and Landforms*, 43, 2481-2483.
47. Wernette, P., S. Thompson, R. Eyster, H. Taylor, C. Taube, C. Decuir, A. Medlin, and C. **Houser**. (2018) Defining dunes: Evaluating how dune feature definitions impact dune interpretations from remote sensing. Submitted to *Journal of Coastal Research*, October 2017.
48. Weymer, B.A., Everett, M.E., Wernette, P., and **Houser**, C. (2018) Statistical modeling of the long-range dependent structure of barrier island framework geology and surface geomorphology. *Earth Surface Dynamics*, 6, 431-450.
49. **Houser**, C., Nunez, J., and Miller, K.C. (2018) Pathways to the Geosciences through 2YR Community Colleges: A Strategic Recruitment Approach being used at Texas A&M University. *Journal of Geoscience Education*, 66, 4-11.
50. **Houser**, C., Wernette, P., and Weymer, B. (2018) Scale dependent behavior of the foredune. *Geomorphology*, 303, 362-374.
51. Wernette, P., **Houser**, C., Weymer, B.A., Everett, M., Bishop, M.P., and Reece, B. (2018) Influence of a spatially complex framework geology on island geomorphology. *Marine Geology*, 398, 151-162.
52. Llopis, I., Echeverria, A.G., Trimble, S., Brannstrom, C., and **Houser**, C., (2018) Determining Beach User Knowledge of Rip Currents in Costa Rica. *Journal of Coastal Research*, 34, 1105-1115.
53. **Houser**, C. and Lemmons, K. (2018) Implicit bias in letters of recommendation for an undergraduate research internship. *Journal of Further and Higher Education*, 42-585-595.
54. **Houser**, C., Bishop, M., and Wernette, P. (2017) Short Communication: Multi-scale topographic anisotropy patterns on a barrier island. *Geomorphology*, 297, 153-158.
55. **Houser**, C., Bishop, M., and Lemmons, K., (2017) Teaching Complex concepts in physical geography through analytical reasoning. *Journal of Geoscience Education*, 65, 263-271.
56. **Houser**, C., Trimble, S., Brander, R., Brewster, B.C., Dusek, G., Jones, D., and Kuhn, J. (2017). Public Perceptions of a Rip Current Hazard Education Program: 'Break the Grip of the Rip!'. *Natural Hazards and Earth Systems Science*, 17, 1003-1024.
57. Jewell, M., **Houser**, C., Trimble, S., (2017) Phases of blowout initiation and stabilization on Padre Island revealed through ground-penetrating radar and remotely sensed imagery. *Physical Geography*, 38, 556-577.
58. **Houser**, C., Brander, R., Brannstrom, C., Trimble, S., and Flaherty, J. (2016) Case Study of Rip Current Knowledge amongst Students Participating in a Study Abroad Program. *Frontiers*:

*The Interdisciplinary Journal of Study Abroad*, XXVIII, 42-60.

59. Weymer, B.A., Everett, M.E., **Houser**, C., Wernette, P., and Barrineau, P. (2016) Differentiating tidal and groundwater dynamics from barrier island framework geology: Testing the utility of portable multi-frequency electromagnetic induction profilers. *Geophysics*, 81(5), E347-E361
60. Wernette, P., **Houser**, C., and Bishop, M., (2016) Technical Communication: An automatic approach for extracting barrier island morphology from digital elevation models. *Geomorphology*, 262, 1-7.
61. Barrineau, P., Dobroveya, I., Bishop, M., and **Houser**, C. (2016) Deconstructing polygenetic landscapes through a multi-scale analysis of a digital elevation model for the South Texas Sand Sheet. *Geomorphology*, 258, 51-57.
62. Brannstrom, C. and **Houser**, C. (2015) Riding the rip. *Journal of Geography in Higher Education*, 39, 527-542. doi: 10.1080/03098265.2015.1084497.
63. Pelletier, J.D., Murray, A.B., Pierce, J.L., Bierman, P.R., Breshears, D.D., Crosby, B.T., Ellis, M., Foufoula-Georgiou, E., Heimsath, A.M., **Houser**, C., Lancaster, N., Marani, M., Merritts D.J., Moore, L.J., Pederson, J.L., Poulos, M.J., Rittenour, T.M., Rowland, J.C., Ruggerio, P., Ward, D.J., Whipple, K.X., Wickert, A.D., and Yager, E.M. (2015) Forecasting landscape response to future climate and land-use changes: An assessment. *Earth's Future*, 3, 220-251.
64. **Houser**, C., Murphy, T. and Labude, D., (2015) Alongshore correspondence of beach users and rip channels at Pensacola Beach, Florida. *Natural Hazards*, 78, 2175-2183.
65. **Houser**, C., Garcia, S., and Torres, J. (2015) Effectiveness of Geosciences Exploration Summer Program (GEOX) for increasing awareness and knowledge of Geosciences. *Journal of Geoscience Education*, 63, 116-126.
66. Weymer, B.A., **Houser**, C., and Giardino, R. (2015) Post-storm evolution of beach-dune morphology: Padre Island National Seashore, Texas. *Journal of Coastal Research*, 31, 634-644.
67. Arozarena, I., **Houser**, C., Gutierrez Echeverria, A. and Brannstrom, C. (2015) The rip current hazard in Costa Rica. *Natural Hazards*, 77, 753-768.
68. **Houser**, C., Bishop, M.P. and Barrineau, P. (2015) ESEX: Characterizing the instability of aeolian landscapes using analytical reasoning. *Earth Surface Processes and Landforms*, 40, 696-705.
69. **Houser**, C., Wernette, P., Rentschler, T., Jones, H., Hammond, B. and Trimble, S. (2015) Post-storm beach and dune recovery: implications for barrier island resilience. *Geomorphology*, 234, 54-63.
70. Weymer, B., Everett, M.E., de Smet T.S., and **Houser**, C. (2015) Review of Electromagnetic Induction for Mapping Barrier Island Framework Geology. *Sedimentary Geology*, 321, 11-24.
71. **Houser**, C., Trimble, S., and Morales, B. (2015) Influence of blade flexibility on the drag coefficient of aquatic vegetation. *Estuaries and Coasts*, 38, 569-577.
72. Brannstrom, C., **Houser**, C., Lee, H., Trimble, S., and Santos, A. (2015) "You can't see them from sitting here:" Evaluating beach user understanding of a rip current warning sign. *Applied Geography*, 56, 61-70.
73. **Houser**, C. Lemmons, K. and Cahill, T. (2014) Assessment of student and faculty mentor perceptions of an international undergraduate research program in physical geography. *Journal of Geography in Higher Education*, 38, 582-594.
74. **Houser**, C., D'Ambrosio, T., Smith, B., Bouchard, C., Darbonne, K., Hunter, S., and Heyman, W. (2014) Shoreline change between 1960 and 2012 within the Sapadilla Cayes Marine Park,

- Mesoamerican Barrier Reef, Belize. *Physical Geography*, 35, 335-354.
75. Jewell, M., **Houser**, C., Trimble, S. (2014) Initiation and evolution of blowouts within Padre Island National Seashore. *Ocean and Coastal Management*, 95, 156-164.
  76. Brannstrom, C., Trimble, S., Santos, A., and Lee, H., and **Houser**, C., (2014) Beach user ability to identify a rip current and hazardous surf conditions. *Natural Hazards*, 72, 1123-1138.
  77. Lamont, M.M., and **Houser**, C., (2014) Spatiotemporal distribution of loggerhead turtle nests and impacts from coastal armoring along a highly dynamic beach in the northern Gulf of Mexico. *Journal of Experimental Marine Biology and Ecology*, 453, 98-107.
  78. Johnson, J., Cairns, D., and **Houser**, C. (2013) Coastal marsh vegetation assemblages of Galveston Bay: insights for the East Texas Chenier Plain. *Wetlands*, 33, 861-870.
  79. **Houser**, C., Arnott, R., Ulzhöfer, S., and Barrett, G (2013) Nearshore Circulation over Transverse Bar and Rip Morphology with Oblique Wave Forcing. *Earth Surface Processes and Landforms*, 38, 1269-1279.
  80. **Houser**, C. (2013) Alongshore variation in beach-dune morphology: Implications for barrier island response. *Geomorphology*, 199, 48-61.
  81. Sherman, D.J., Hales, B., Potts, B., Liu, H., Ellis, J., and **Houser**, C. (2013) Impacts of Hurricane Ike on the beaches of the Bolivar Peninsula, Texas, USA. *Geomorphology*, 199, 62-81.
  82. **Houser**, C., Lemmons, K., and Cahill, T. (2013) Role of the faculty mentor in undergraduate research experiences. *Journal of Geoscience Education*, 61, 297-305.
  83. Sherman, D.J., **Houser**, C., Ellis, J.T., Farrell, E.J., Li, B., and Maia, L.P. (2013) Characterization of Aeolian streamers using time-average videography. *Journal of Coastal Research* SI65, 1331-1336.
  84. Caldwell, N., **Houser**, C., and Meyer-Arendt, K. (2013) Ability of beach users to identify rip currents at Pensacola Beach, Florida. *Natural Hazards*, 68, 1041-1056.
  85. Sherman, D., **Houser**, C., and Baas, A. (2013) Electronic field equipment in process geomorphology. In: John F. Shroder (ed.) *Treatise on Geomorphology*, 14, pp. 195-221. San Diego: Academic Press.
  86. **Houser**, C., and Ellis, J. (2013) Morphodynamic Systems: Beach and Dune Interaction. In: John F. Shroder (ed.) *Treatise on Geomorphology*, 10, pp. 267-288. San Diego: Academic Press.
  87. **Houser**, C. (2013) Flow separation over a prograding beach step at Pensacola Beach, Florida. *Journal of Coastal Research*, 29, 1247-1256.
  88. **Houser**, C., Labude, B., Haider, L., and Weymer, B. (2012) Impacts of Driving on the Beach: Case Studies from Assateague Island and Padre Island National Seashores. *Ocean and Coastal Management*, 71, 33-45.
  89. **Houser**, C. (2012) Technical Communication: Monitoring bed elevation change in aeolian environments using ultrasonic distance sensors. *Aeolian Research*, 6, 75-82.
  90. **Houser**, C. (2012) Feedback between ridge and swale bathymetry and barrier island storm response and transgression. *Geomorphology*, 173/174, 1-16.
  91. Ezer, T., Heyman, W.D., **Houser**, C., and Kjerfve, B (2012) Extreme flows and unusual water level rise near a Caribbean coral reef: was this a case of a “perfect storm”? *Ocean Dynamics*, 62, 1043-1057.
  92. Barrett, G., and **Houser**, C. (2012) Identifying hot spots of rip current activity using wavelet analysis at Pensacola Beach, Florida. *Physical Geography*, 33, 32-49.
  93. **Houser**, C., Brannstrom, C., Quiring, S., and Lemmons, K. (2011) Study abroad field trip

- improves test performance through engagement and new social networks. *Journal of Geography in Higher Education*, 35, 513-528.
94. **Houser, C.** (2011) Sediment resuspension by vessel-generated waves along the Savannah River, Georgia. *Journal of Waterway, Port, Coastal and Ocean Engineering*, 137, 246-257.
  95. **McKinney, N., Houser, C.,** and Meyer-Arendt, K (2011) Direct and indirect mortality in Florida during the 2004 hurricane season. *Journal of Biometeorology*, 55, 533-546.
  96. **Houser, C., Barrett, G.,** and Labude, D. (2011) Alongshore variation in the rip current hazard at Pensacola Beach, Florida. *Natural Hazards*, 57, 501-523.
  97. **Houser, C.,** and Mathew, S. (2011) Variability in foredune height depends on the alongshore correspondence of transport potential and sediment supply. *Geomorphology*, 125, 62-72.
  98. Ezer, T., Heyman, W.D., **Houser, C.,** and Kjerfve, B. (2011) Modeling and observations of high-frequency flow variability and internal waves at a Caribbean reef spawning aggregation site. *Ocean Dynamics*, 61, 581-598.
  99. Legates, DR, Mahmood, R, Levia DF, DeLiberty TL, Quiring, S, **Houser, C.,** and Nelson, F.E. (2010) Soil Moisture: A central and unifying theme in Physical Geography. *Progress in Physical Geography*, 35, 65-86.
  100. **Houser, C.** and **Barrett, G.** (2010) Divergent behavior of the swash zone in response to different foreshore slopes and nearshore states. *Marine Geology*, 271, 106-118.
  101. **Houser, C.,** and Hill, P. (2010) Wave attenuation across an intertidal sand flat: implications for mudflat development. *Journal of Coastal Research*, 26, 403-411.
  102. **Houser, C.,** and Hill, P. (2010) Sediment Transport on Roberts Bank: A Sandy Intertidal Flat on the Fraser River Delta. *Journal of Coastal Research*, 26, 333-341.
  103. **Houser, C.** (2010) Relative importance of vessel and wind waves to salt marsh erosion at Fort Pulaski National Monument. *Journal of Coastal Research*, 26, 230-240.
  104. **Houser, C.** (2009) Synchronization of transport and supply in beach-dune interaction. *Progress in Physical Geography*, 33, 733-746. doi:10.1177/0309133309350120
  105. **Bradley, K.,** and **Houser, C.** (2009) Relative velocity of seagrass blades: Implications for wave attenuation in low energy environments. *Journal of Geophysical Research, Earth Surface*, 114, F01004, doi: 10.1029/2007JF000951.
  106. **Houser, C.** and **Barrett, G.** (2009). Wave-scale changes in bed elevation of an intermediate foreshore. *Journal of Coastal Research*, SI 56, 64-68.
  107. **Houser, C.,** and **Hamilton, S.** (2009) Sensitivity of post-hurricane beach and dune recovery to event frequency. *Earth Surface Processes and Landforms*, 34, 613-628.
  108. **Houser, C.** (2009) Geomorphological controls on road damage during Hurricanes Ivan and Dennis. *Journal of Coastal Research*, 25, 558-568.
  109. **Houser, C.,** Hapke, C. and **Hamilton, S.,** (2008) Controls on Coastal Dune Morphology, Shoreline Erosion and Barrier Island Response to Extreme Storms. *Geomorphology*, 100, 223-240.
  110. **Houser, C.,** **Hobbs, C.** and **Saari, B.** (2008) Post-hurricane airflow and sediment transport over a recovering dune. *Journal of Coastal Research*, 24, 944-953.
  111. **Houser, C.,** and Greenwood, B. (2007) Onshore migration of a swash bar. *Journal of Coastal Research*, 23, 1-14.
  112. Greenwood, B., Permanand-Schwartz, A., and **Houser, C.** (2006) Emergence and migration of a nearshore bar: Sediment flux and morphological change on a multi-barred beach in the Great Lakes. *Geographie Physique et Quaternaire*, 60, 31-47.
  113. **Houser, C.,** Greenwood, B., and Aagaard, T. (2006) Divergent Response of an Intertidal

Swash Bar. *Earth Surface Processes and Landforms*, 31, 1775-1791.

114. Liebens, J., Mohrherr, C., Rao, K., and **Houser**, C. (2006) Magnitude, spatial distribution and origin of pollution in an urban bayou. *Water, Air and Soil Pollution*, 174, 235-263.
115. **Houser**, C., and Greenwood, B. (2005) Hydrodynamics and sediment transport within the inner surf zone of a lacustrine multiple-barred nearshore. *Marine Geology*, 218, 37-63.
116. **Houser**, C., and Greenwood, B. (2005) Profile response of a lacustrine multiple-barred nearshore to a sequence of storm events. *Geomorphology*, 69, 118-137.
117. Gough, B., and **Houser**, C. (2005) Climate memory and long-range forecasting of sea ice conditions in Hudson Strait. *Polar Geography*, 29, 17-26.
118. Bauer, B., **Houser**, C., and Nickling, W.G. (2004) Analysis of velocity profiles from wind tunnel experiments with saltation. *Geomorphology*, 59, 81-98.
119. **Houser**, C., and Gough, B. (2004) Variations in Sea Ice in the Hudson Strait: 1971-1999. *Polar Geography*, 1, 1-14.
120. **Houser**, C., and Nickling, W.G. (2000) The emission and vertical flux of PM<sub>10</sub> from a clay- crusted surface. *Sedimentology*, 48, 255-267.
121. **Houser**, C., and Nickling, W.G. (2000) The factors influencing the abrasion efficiency of saltating grains. *Earth Surface Processes and Landforms*, 26, 491-505.

### Books and Textbooks

1. Davidson-Arnott, R., Bauer, B.O., and **Houser**, C. (2019) *Introduction to Coastal Processes and Geomorphology* 2<sup>nd</sup> Edition. 523 pp.
2. Giardino, R., and **Houser**, C. (Eds) (2015) *Principles and Dynamics of the Critical Zone*. Elsevier, p. 674.

### Book Chapters

1. **Houser**, C., Wernette, P., Trimble, S., and Locknick, S. (2020). Rip Currents *In: Sandy Beach Morphodynamics* Eds Derek W.T. Jackson and Andrew Short, Elsevier, 255-276.
2. Smith, A., Lunardi, B., George, E., and **Houser**, C. (2020). Monitoring Storm Impacts on Sandy Coastlines with UAVs. In *Spatial Variability in Environmental Science-Patterns, Processes, and Analyses*. IntechOpen, 67-90.
3. Trimble, S., and **Houser**, C. (2018). Seawalls and signage: how beach access management affects rip current safety. In: *Beach Management Tools*, edited by O. Cervantes, Springer, 497-524.
4. **Houser**, C., Barrineau, P., Hammond, B., Saari, B., Rentschler, E., Trimble, S., Wernette, P., Weymer, B., and Young, S. (2018) Role of the foredune in controlling barrier island response to sea level rise. *Barrier Islands*, edited by Moore, L., and Murray, B., pp. 175-203.
5. Giardino, J.R., and **Houser**, C. (2015) Introduction to the Critical Zone. In: *Principles and Dynamics of the Critical Zone*, edited by Houser, C., and Giardino, R., Elsevier, pp. 1-13.
6. Barrineau, P., Wernette, P., Trimble, S., Weymer, B., Hammond, B., and **Houser**, C. (2015). Critical zone of coastal barrier islands. In: *Principles and Dynamics of the Critical Zone*, edited by Houser, C., and Giardino, R., pp. 497-522.
7. Bishop, M., Dobreva, I., and **Houser**, C. (2015). Remote sensing of process domains in the critical zone. In: *Principles and Dynamics of the Critical Zone*, edited by Houser, C., and Giardino, R., Elsevier, pp. 523-562.
8. Houser, C., Caldwell, N., and Meyer-Arendt, K. (2011) Hot times at Hot spots: The rip current hazard at Pensacola Beach, Florida. Invited submission to refereed book *Rip Currents: Beach*

*Safety, Physical Oceanography and Wave Modeling*, edited by Steven Leatherman and John Fletemeyer, CRC Press, pp 175-198.

9. Houser, C., (2010) Response and Recovery of the National Seashores to Extreme Storms: Sensitivity to the Frequency of Storm Events. In: *National Parks: Vegetation, Wildlife and Threats*, Nova Publishers.

#### Conference Proceedings

1. Weymer, B.A., Barrineau, P., **Houser**, C., Everett, M., and Jewell, M. (2013) Using GPR and EM to characterize barrier island transgression along the Texas Coast. *Coastal Geophysics Workshop*, Austin, Texas, September 2013.
2. Jewell, M., Weymer, B., **Houser**, C., Everett, M., and Barrineau, P. (2013) Characterizing coastal dune blowouts using GPR in combination with LiDAR and historical aerial photographs. *Coastal Geophysics Workshop*, Austin, Texas, September 2013.
3. **Houser**, C., Hamilton, S., Meyer-Arendt, K., and Oravetz, J. (2006) EOF analysis of barrier island morphological change during Hurricane Ivan. *Coastal Sediments '07*, May 2006.
4. Shaw, A., **Houser**, C., Hill, P. and Lintern, G. (2005) Predicting tidal flat profile response to climate change and associated sea level rise. *Proceedings of the 2005 Canadian Coastal Conference*. November 2005, Halifax, Nova Scotia.
5. Greenwood, B., and **Houser**, C., (2005) Wave set up, undertow and frequency dependent sediment flux on a multi-barred lacustrine shoreface. *International Coastal Symposium*. April 2005, Hornafjörður, Iceland.
6. Shaw, A.L., Lintern, D.G., Hill, P.R., **Houser**, C., (2005) Factors Controlling Tidal Flat Response to Sea Level Rise: Roberts Bank, British Columbia, Canada. Proceedings, Coastal Dynamics 2005, 5th International Conference, April 4-8, 2005, Barcelona, Spain (ed. A. Sanchez-Arcilla) (doi 10.1061/40855(214)40).
7. Hill, P.R., **Houser**, C., Lintern, D.G., Shaw, A., Solomon, S., Sutherland, T., Levings, C., and Tansey, J. (2004). Sensitivity of the Roberts Bank tidal flats (Vancouver, Canada) to climate change and anthropogenic alteration. *Delivering Sustainable Coasts: Connecting Science and Policy, Proceedings of Littoral 2004*, Cambridge Publications, p. 648-649.
8. **Houser**, C., and Greenwood, B. (2003) Role of secondary (harmonic) wave generation in the morphodynamics of a multiple-barred nearshore. *Proceedings of the 2003 Canadian Coastal Conference*. October 2003, Kingston, Ontario.
9. **Houser**, C., and Greenwood, B. (2003) Response of a nearshore to a sequence of storm events. *Coastal Sediments, 2003*. May 2003, Clearwater, Florida.
10. Greenwood, B., **Houser**, C., Aagaard, T. & Nielsen, J., (2003b): Storm Surge in the Danish Wadden Sea Intertidal Zone: hydrodynamics and sediment transport. Proceedings Coastal Sediments '03, Clearwater, Florida, ASCE, New York, CD-ROM, 14 pp.
11. Bauer, B., **Houser**, C., and Nickling, W.G. (2002) Analysis of velocity profiles from wind tunnel experiments with Saltation. *International Conference on Aeolian Research*. July 2002, Lubbock, Texas.
12. Greenwood, B., **Houser**, C., Aagaard, T., and Nielsen, J. (2001) Storm Surge in the Danish Wadden Sea: Sediment Flux and Morphodynamic Response on the Upper Shoreface. *Proceedings of the 2001 Canadian Coastal Conference*. May 2001, Quebec City, Quebec.

#### Invited Conference Presentations

1. **Houser**, C. Alongshore Variation in Beach and Dune Coupling. *American Geophysical Union*

- Annual Meeting*, San Francisco, December 9-15, 2019.
2. **Houser**, C., Wernette, P., and Weymer, B. Scale dependent behavior of the foredune: Implications for barrier island response to storms and sea level rise. *European Geophysical Union Annual Meeting*, Vienna, April 16-20, 2017.
  3. **Houser**, C., Wernette, P., and Weymer, B. Scale dependent behavior of the foredune: Implications for barrier island response to storms and sea level rise. *American Geophysical Union Annual Meeting*, San Francisco, December 9-13, 2015.
  4. **Houser**, C. Post-storm recovery as a control on barrier island resilience and management. *Dune Management Challenges on Developed Coasts*, Kitty Hawk, North Carolina, October 26-28, 2015.
  5. **Houser**, C. Impacts of driving on the beach at Padre Island National Seashore: Implications for island response to sea level rise. *Texas Beaches and Dunes: Science and Management Forum*, Corpus Christi, September 24-25, 2015.
  6. **Houser**, C. Variation in coastal dune morphology: Implications for storm response. *Binhampton Geomorphology Conference*, Newark New Jersey, October 17-20, 2013.
  7. **Houser**, C. Recovery as the key to barrier island resiliency. *NSF Workshop on Landscape Response to Climate Change*, Tuscon, Arizona, September 24-27, 2013.
  8. **Houser**, C., Weymer, B., Trimble, S., and Barrineau, P. Interaction of beach, dune and nearshore systems: implications for barrier island morphology. *American Geophysical Union Annual Meeting*, San Francisco, December 9-13, 2013.
  9. **Houser**, C. and Hill, P. Wave attenuation and sediment transport over an intertidal sand flat on the Fraser River Delta. *American Geophysical Union Annual Meeting*, San Francisco, December 11-17, 2010.
  10. **Houser**, C. Response and recovery of a barrier island to extreme storms. *Geological Society of America*, Denver, Colorado, October 31-November 4, 2010.
  11. **Houser**, C., Caldwell, N., and Meyer-Arendt, K. Hot times at Hot spots: The rip current hazard at Pensacola Beach, Florida. *First International Symposium on Rip Currents*, Miami, Florida, February 17-19, 2010.

### Conference Presentations

1. Mulligan, R.P., Swatridge, L., Cantelon, J., Kurylyk, B., George, E., and Houser, C. Coastal impacts from waves and storm surge generated by Hurricane Fiona on Prince Edward Island, Canada. *American Geophysical Union Annual Meeting*, Chicago, December 2022.
2. Locknick, S., and **Houser**, C. Correspondence Between Beach User Perception and Rip Currents in Prince Edward Island. *American Geophysical Union Annual Meeting*, San Francisco, December 9-15, 2019.
3. George, E., Lehner, J.D., Wernette, P., and **Houser**, C. Fuzzy Boundaries: Classifying the Beach-dune interface. *American Geophysical Union Annual Meeting*, San Francisco, December 9-15, 2019.
4. Wernette, P., and **Houser**, C. Geologic Controls on Rip Current Location and Formation. *American Geophysical Union Annual Meeting*, San Francisco, December 9-15, 2019.
5. Cherry, N., and **Houser**, C. Machine learning assessment of lifeguard perception of rip-risks. *American Geophysical Union Annual Meeting*, San Francisco, December 9-15, 2019.
6. Lehner, J.D., Wernette, P., **Houser**, C. Identifying Foredune Morphometrics through a landform extraction machine learning approach. *American Geophysical Union Annual Meeting*, San Francisco, December 9-15, 2019.

7. Smith, A., **Houser**, C., Chittle, B., Krueger, T. Collating and Predicting North American Beach-Dune Interactions through Time and Space. *American Geophysical Union Annual Meeting*, San Francisco, December 9-15, 2019.
8. Lunardi, B., Lehner, J., **Houser**, C., Wernette, P., George, E. Alongshore coupling of eco-geomorphological variables of a beach-dune system. *American Geophysical Union Annual Meeting*, San Francisco, December 9-15, 2019.
9. Wernette, P., Lehner, J., and **Houser**, C. What is real? Identifying patterns of erosion and deposition in the context of spatially variable uncertainty. *American Association of Geographers Annual Meeting*, 2018.
10. Wernette, P., **Houser**, C., Lehner, J., and Evans, A. Human activity, framework geology and barrier island resiliency: Lessons from Hurricane Harvey. *American Geophysical Union Annual Meeting*, San Francisco, December 8-14, 2018.
11. Lehner, J., Wernette, P., and **Houser**, C. Machine learning approach to predicting foredune morphometrics. *American Geophysical Union Annual Meeting*, San Francisco, December 8-14, 2018.
12. **Houser**, C., Figlus, J., and Hammond, B. Post-storm recovery of the foredune: Implications for barrier island resiliency. *American Geophysical Union Annual Meeting*, San Francisco, December 8-14, 2018.
13. **Houser**, C., and Trimble, S. Seawalls and signage: how beach access management affects rip current safety. *Canadian Coastal Conference*, 2018.
14. **Houser**, C., Wernette, P., and Weymer, B. Scale dependent behavior of the foredune: Implications for barrier island response to storms and sea level rise. *Canadian Coastal Conference*, 2018.
15. Locknick, S., Scaman, A., and **Houser**, C. A study of rip current warning dissemination methods. *American Association of Geographers Annual Meeting*, 2018.
16. Wernette, P., and **Houser**, C., Enhancing professional development through vertically tiered undergraduate research. *American Association of Geographers Annual Meeting*, 2018.
17. Burdett, H., Lehner, J., **Houser**, C, Let's get fuzzified. *American Association of Geographers Annual Meeting*, 2018.
18. Lehner, J., Wernette, P., and **Houser**, C. Machine learning approach to predicting coastal geomorphology. *American Association of Geographers Annual Meeting*, 2018.
19. Wernette, P., **Houser**, C., Evans, A. Management implications of Hurricane Harvey for Padre Island National Seashore. *American Association of Geographers Annual Meeting*, 2018.
20. Vlodarchyk, B., **Houser**, C., Lehner, J., and Wernette, P. Predicting drownings on the great lakes using machine learning. *American Association of Geographers Annual Meeting*, 2018.
21. **Houser**, C., and Locknick, S. Rip currents within the Canadian Curriculum. *American Association of Geographers Annual Meeting*, 2018.
22. Wernette, P., **Houser**, C., Weymer, B., Everett, M., Bishop, M., Reece, B. Spatially variable framework geology as a driver of barrier island development. *American Association of Geographers Annual Meeting*, 2017.
23. **Houser**, C., Wernette, P., and Weymer, B., Scale dependent of the foredune: Implications for barrier island response to storms and sea level rise. *American Association of Geographers Annual Meeting*, 2017.
24. Trimble, S., **Houser**, C., and Bishop, B. Degree of anisotropy as an automated indicator of rip channels in high resolution bathymetric models. *American Geophysical Union Annual Meeting*, San Francisco, December 8-14, 2017.



25. Evans, A., Wernette, P., and **Houser**, C. Coastal erosion at Padre Island: Insights from UAV Surveys after Hurricane Harvey. *American Geophysical Union Annual Meeting*, San Francisco, December 8-14, 2017.
26. Locknick, S., and **Houser**, C. Beach user perceptions of the rip current hazard on the Great lakes. *American Association of Geographers Annual Meeting*, 2017.
27. Burdett, H., and **Houser**, C. No speak, no hear, no see: Improving warning systems for rip currents on the Great Lakes. *American Association of Geographers Annual Meeting*, 2017.
28. Scaman, A., and **Houser**, C. Slap you in the face: A study of rip current warning dissemination methods. *American Association of Geographers Annual Meeting*, 2017.
29. Vlodarchyk, B., and **Houser**, C. Spatial and temporal variation in drownings on the Great Lakes: 2010-2016. *American Association of Geographers Annual Meeting*, 2017.
30. Barrineau, P., and **Houser**, C., Desertification and dune activity in South Texas. *American Association of Geographers Annual Meeting*, 2017.
31. Olivito, A., and **Houser**, C. Identifying beach and nearshore states at “Hot spots” drowning locations in the Great Lakes. *American Association of Geographers Annual Meeting*, 2017.
32. Wernette, P., **Houser**, C., and Quick, C. Team-based multidisciplinary research scholarship in the Geosciences. *American Geophysical Union Annual Meeting*, San Francisco, December 8-14, 2016.
33. Lehner, J., Wernette, P., Bishop, M., and **Houser**, C. Assessing barrier island resiliency through multi-scale topographic anisotropy distribution patterns. *American Geophysical Union Annual Meeting*, San Francisco, December 8-14, 2016.
34. Hartman, K., Trimble, S., Bishop, M., and **Houser**, C. Assessment of rip-current hazards using alongshore topographic anisotropy at Bondi Beach, Australia. *American Geophysical Union Annual Meeting*, San Francisco, December 8-14, 2016.
35. **Houser**, C., Bishop, M., and Wernette, P. Multi-scale topographic anisotropy patterns with post-storm barrier island recovery. *American Geophysical Union Annual Meeting*, San Francisco, December 8-14, 2016.
36. Flores, P., and **Houser**, C. Alongshore variation in the depth of activation: Implications of Oil Residence Time. *American Geophysical Union Annual Meeting*, San Francisco, December 8-14, 2016.
37. Trimble, S., and **Houser**, C. Mapping and mitigating the international rip current health hazard. *American Geophysical Union Annual Meeting*, San Francisco, December 8-14, 2016.
38. Wernette, P., **Houser**, C., Weymer, B., Bishop, M., Everett, M., and Reece, R. Framework geology as a driver of barrier island evolution. *American Geophysical Union Annual Meeting*, San Francisco, December 8-14, 2016.
39. Tuttle, L., Wernette, P., and **Houser**, C. Updating the framework geology of Padre Island National Seashore: Validation of geophysical surveys through sediment cores. *American Geophysical Union Annual Meeting*, San Francisco, December 8-14, 2016.
40. Weymer, B., Everett, M.E., Wernette, P., and **Houser**, C. Statistical modeling of EMI spatial data series and LiDAR-derived morphometrics to understand the large-scale framework geology controls on barrier island transgression. *23<sup>rd</sup> Electromagnetic Induction Workshop*, Chiang Mai, Thailand, August 14-20, 2016.
41. Barrineau, P. and **Houser**, C. Deconstructing a Polygenetic Landscape Using LiDAR and Multi-Resolution Analysis. *American Geophysical Union Annual Meeting*, San Francisco, December 9-13, 2015.
42. Weymer, B., Everett, M., Wernette, P., and **Houser**, C. Is barrier island geologic framework

- fractal? Evidence from Padre Island National Seashore, Texas, USA. *American Geophysical Union Annual Meeting*, San Francisco, December 9-13, 2015
43. Trimble, S., **Houser**, C., Brander, R., and Chirico, P. Identifying rip currents from remotely sensed imagery. *American Geophysical Union Annual Meeting*, San Francisco, December 9-13, 2015.
  44. Bishop, M.P., **Houser**, C., and Lemmons, K. Transforming Undergraduate Education through the use of Analytical Reasoning (TUETAR). *American Geophysical Union Annual Meeting*, San Francisco, December 9-13, 2015.
  45. Wernette, P., Weymer, B., **Houser**, C., Bishop, M.P., Everett, M., and Reece, R. Using wavelet decomposition to assess the development of Padre Island National Seashore. *American Geophysical Union Annual Meeting*, San Francisco, December 9-13, 2015.
  46. Wernette, P., **Houser**, C., and Bishop, M. Extracting barrier island morphology from Digital Elevation Models: An Automated Approach. *70<sup>th</sup> Annual Meeting of the Southeastern Division of the Association of American Geographers*, November 22-24, 2015.
  47. **Houser**, C., Wernette, P., and Weymer, B. Scale dependent behavior of the fordune: Implications for barrier island response to storms and sea level rise. *70<sup>th</sup> Annual Meeting of the Southeastern Division of the Association of American Geographers*, November 22-24, 2015.
  48. Trimble, S., **Houser**, C., and Brander, R. Perceptions of the rip current hazard and observations of beachgoer behavior on Bondi Beach, Sydney. *70<sup>th</sup> Annual Meeting of the Southeastern Division of the Association of American Geographers*, November 22-24, 2015.
  49. **Houser**, C., Wernette, P., Rentschlar, E., Jones, H., and Hammond, B. Post-hurricane beach and dune recovery: implications for barrier island resilience. Association of American Geographers Annual Meeting, April 2015.
  50. Wernette, P., Weymer, B., **Houser**, C., Bishop, M., and Everett, M. Integration of geophysics and LiDAR to assess the role of geologic inheritance in barrier island evolution. Association of American Geographers Annual Meeting, April 2015.
  51. Hammond, B., and **Houser**, C. Using foredunes to quantify rate of recovery of Assateague Island, MD. Association of American Geographers Annual Meeting, April 2015.
  52. Barrineau, P., and **Houser**, C., Using remotely sensed data and geophysical surveys to characterize stabilized Aeolian landscapes. Association of American Geographers Annual Meeting, April 2015.
  53. Weymer, B.A., **Houser**, C., Giardino, J., Barrineau, P., Everett, M., and Bishop, M. The role of geologic inheritance on storm impacts along the south Texas Coast, USA. European Geophysical Union Annual Meeting, Vienna.
  54. Weymer, B.A., Barrineau, C.P., Bishop, M.P., Everett, M.E., Tchakerian, V.P., and **Houser**, C. Using mixed morphometrics and near-surface geophysics to characterize geomorphic evolution of the South Texas coastal zone. *American Geophysical Union Annual Meeting*, San Francisco, December 9-13, 2013.
  55. Garcia, S., and **Houser**, C. Effectiveness of Geosciences Exploration Summer Program (GEOX) for increasing awareness and Broadening Participation in Geosciences. *American Geophysical Union Annual Meeting*, San Francisco, December 9-13, 2013.
  56. **Houser**, C., Cahill, A., and Lemmons, K. A new approach to assess student perceptions of gains from a REU program. *American Geophysical Union Annual Meeting*, San Francisco, December 9-13, 2013.
  57. Weymer, B.A., Barrineau, P., **Houser**, C., Everett, M., and Jewell, M. (2013) Using GPR and

- EM to characterize barrier island transgression along the Texas Coast. Coastal Geophysics Workshop, Austin, Texas, September 2013.
58. Jewell, M., Weymer, B., Houser, C., Everett, M., and Barrineau, P. (2013) Characterizing coastal dune blowouts using GPR in combination with LiDAR and historical aerial photographs. Coastal Geophysics Workshop, Austin, Texas, September 2013.
  59. Houser, C., Bishop, M., Dobрева, I., Barrineau, P., and Weymer, B., Characterizing the instability of aeolian environments using analytical reasoning. *American Geophysical Union Annual Meeting*, San Francisco, December 9-13, 2013.
  60. Houser, C. International Research Experiences for Undergraduates. *Southwestern Division of the American Association of Geographers*, October 24-26, 2013.
  61. Mora, R., Giardino, J.R., Heaney, M.J., Price, A., Johnson, H., Houser, C., and Marcantonio, F. Geological mapping in the field through a unique bi-national approach to teaching: Texas A&M University and the University of Costa Rica. *Geological Society of America Meeting*, Denver, October 27-30, 2013.
  62. Houser, C., Cahill, A., Gonzalez, E., Brooks, S., Frauenfeld, O, Miller, G., Moore, G., Rapp, A., Roark, B., Schade, G., Schmucaher, C., Washington-Allen, R., Brumbelow, K., and Lemmons, K.. Eco-hydrology of a tropical montane forest, a REU site hosted by Texas A&M University in Costa Rica. *Association for Tropical Biology and Conservation Annual Meeting*, San Jose, Costa Rica, June 24-27, 2013.
  63. Washington, R.A., Buckwalter, E.H., Moore, G.W., Burns, J., Dennis, A.R., Dodge, O., Guffin, E.C., Morris, E.R., Oien, R.P., Orozco, G., Peterson, A., Teale, N.G., Shibley, N.C., Tourtellote, N., Houser, C., Brooks, S., Brumbelow, J.K., Cahill, A.T., Frauenfeld, O.W., Gonzalez, E., Hallmark, C.T., McInnis, K.J., Miller, G.R., Morgan, C., Quiring, S., Rapp, A., Roark, B., Delgado, A., Ackerson, J.P., and Arnott, R. Exploratory water budget analysis of a transitional premontane cloud forest in Costa Rica through undergraduate research. *American Geophysical Union Annual Meeting*, San Francisco, December 3-7, 2012.
  64. Houser, C., Cahill, A.T., and Lemmons, K. The role of the faculty mentor to the REU experience: insights from an international REU. *American Geophysical Union Annual Meeting*, San Francisco, December 3-7, 2012.
  65. Weymer, B.A., Houser, C., and Giardino, R. Alongshore variability in beach planform, grain-size distribution and foredune height of an embayed beach: Shoalwater Bay, Queensland, Australia. *American Geophysical Union Annual Meeting*, San Francisco, December 3-7, 2012.
  66. Arnott, R., and Houser, C. Determining rip current circulation patterns and velocities in the vicinity of a groin using GPS equipped drogues. *American Geophysical Union Annual Meeting*, San Francisco, December 3-7, 2012.
  67. Barrineau, C.P., Tchakerian, V., and Houser, C. Aeolian processes of the Pismo-Oceano dune complex, California. *American Geophysical Union Annual Meeting*, San Francisco, December 3-7, 2012.
  68. Jewell, M., and Houser, C., Holocene Development and progression of aeolian blowouts on Padre Island National Seashore. *American Geophysical Union Annual Meeting*, San Francisco, December 3-7, 2012.
  69. Houser, C., Sherman, D. and Ellis, J. Video analysis of Aeolian streamers. *American Geophysical Union Annual Meeting*, San Francisco, December 3-7, 2012.
  70. Trimble, S., Brannstrom, C., Houser, C., Lee, H., and Santos, A. Perception of rip current hazard at Galveston Island. Annual Meeting of the *Southwest Division of the American Association of Geographers*, 25-27 October 2012, Las Cruces, NM

71. Jewell, M., and **Houser**, C., Holocene Development and progression of aeolian blowouts on Padre Island National Seashore. Annual Meeting of the *Geological Society of America*, Charlotte, North Carolina, November 4-7, 2012.
72. Weymer, B.A., **Houser**, C., and Giardino, J.R., The evolution of beach-dune morphology: Padre Island National Seashore Texas. Annual Meeting of the *Geological Society of America*, Charlotte, North Carolina, November 4-7, 2012.
73. **Houser**, C., Labude, B., Haider, L., and Weymer, B. Impacts of Driving on the Beach: Case Studies from Assateague Island and Padre Island National Seashores. Annual Meeting of the *Geological Society of America*, Charlotte, North Carolina, November 4-7, 2012.
74. **Houser**, C. and Saari, B., Biogeomorphic feedback in barrier island response and recovery to extreme storms, *21<sup>st</sup> Biennial Conference of the Coastal and Estuarine Research Federation*, November 6-10, 2011.
75. Ezer, T., Heyman, W., and **Houser**, C., High-resolution simulations of flow-topography interactions near coral reefs and potential implications for Caribbean fish spawning aggregations, 3rd International Workshop on Modeling the Ocean, Jun 6-9, 2011, Qingdao, China.
76. **Houser**, C., Rip Current Hazard at Pensacola Beach. *Association of American Geographers 107<sup>th</sup> Annual Meeting*, Seattle, Washington, April 14-18, 2011.
77. **Houser**, C., Linking beach-dune interaction with barrier island transgression. *American Geophysical Union Annual Meeting*, San Francisco, December 11-17, 2010.
78. **Houser**, C., Flow separation over a prograding beach step. *Association of American Geographers 106<sup>th</sup> Annual Meeting*, Washington, DC, April 14-18, 2010.
79. **Houser**, C., Alongshore variation in dune morphology and storm impact in national seashores depends on the correspondence of transport potential and sediment supply. *Geological Society of America: Northeast*, Baltimore, March 13-15, 2010.
80. **Houser**, C., Rip Current Hazard at Pensacola Beach. *1<sup>st</sup> International Rip Current Symposium*, Miami, Florida, February 17-19, 2010.
81. **Houser**, C., Managing the natural recovery of coastal systems following extreme storms. *Annual Meeting of the George Wright Society*, Portland, Oregon, March 2-6, 2009.
82. **Houser**, C., Wave by wave changes in the swash zone. Annual Meeting of the *Geological Society of America*, Houston, Texas, October 5-10, 2008.
83. **Houser**, C., Post hurricane beach and dune recovery. *Association of American Geographers 104<sup>th</sup> Annual Meeting*, Boston, Massachusetts, April 15-19, 2008.
84. **Houser**, C., Linking Dune morphology on a barrier island to transverse Bars on the inner shelf. *Association of American Geographers 103<sup>rd</sup> Annual Meeting*, San Francisco, California, April 17-23, 2007.
85. Meyer-Arendt, K., Oravetz, J., and **Houser**, C., Response of the Mississippi barrier islands to Hurricane Katrina. *Association of American Geographers 103<sup>rd</sup> Annual Meeting*, San Francisco, California, April 17-23, 2007.
86. Hamilton, S., and **Houser**, C., LiDAR analysis of morphological changes from Hurricane Ivan *Association of American Geographers 103<sup>rd</sup> Annual Meeting*, San Fransisco, California, April 17-23, 2007.
87. **Houser**, C. Geologic controls on Hurricane Damage and Dune Recovery. *Geological Society of America, Southeast Division Annual Meeting*, Savannah, Georgia, March 29-30, 2007.
88. **Houser**, C., Hobbs, C., Saari, B. Post-hurricane airflow and sediment transport over a recovering dune. *International Conference on Aeolian Research*, University of Guelph,

Guelph, Ontario, July 24-28, 2006.

89. Hill, P, **Houser, C.**, Lintern, G., Shaw, A., Sutherland, T., Levings, C., Butler, R., and Elner, R., 2005. Impacts of sea level rise on the tidal flats of the Fraser River Delta. *Natural Resources of Canada Climate Change Workshop*, Ottawa, Ontario, September 13-15, 2005.
90. **Houser, C.**, Walker, I., and Abeyvirigunawardena, D. 2005. Formation and behaviour of intertidal bar morphology. *Annual Meeting of the Southeastern Division of the American Association of Geographers*, November 20-22, 2005.
91. **Houser, C.** and Hamilton, S., Geomorphological impacts of Hurricane Ivan on Santa Rosa Island, Pensacola, Florida. *Annual General Meeting of the Canadian Association of Geographers*, London, Ontario, May 31 – June 4, 2005.
92. **Houser, C.**, and Hill, P. (2005) Fate of sediment from a proposed dredge disposal site on the Fraser River Delta. *Geological Society of America, Southeastern Division*, March 2005.
93. **Houser, C.** and Greenwood, B. (2003) Multivariate analysis of profile change in a lacustrine multiple barred nearshore. *Annual General Meeting of the Canadian Association of Geographers*, Victoria, British Columbia, May 29 – June 1, 2003.
94. **Houser, C.** (2002) Seasonal dynamics of a lacustrine multiple-barred nearshore, Pinery Provincial Park, Ontario. *Association of American Geographers 98<sup>th</sup> Annual Meeting*, Los Angeles, California, March 19-23, 2002.
95. **Houser, C.** (2001) The role of antecedent morphology and event sequencing in the morphodynamics of a swash bar. *American Association of Geographers 97<sup>th</sup> Annual Meeting*, New York City, February 27- March 3, 2001.
96. **Houser, C.** (2000) The importance of event sequencing in nearshore morphodynamics. *Annual General Meeting of the Canadian Association of Geographers*, Brock University, St. Catharines, Ontario, May 31 – June 3, 2000.
97. **Houser, C.** (2000) The emission of PM<sub>10</sub> from a clay-crust surface, and the use of shear velocity in emission models. *American Association of Geographers 96<sup>th</sup> Annual Meeting*, Pittsburgh, Pennsylvania, April 4-8, 2000.
98. **Houser, C.** (1999) Limitations on using shear velocity in dust emission research. *Canadian Association of Geographers Ontario Chapter*, Hamilton, Ontario, October 16, 1999.

### **Book Reviews**

1. **Houser, C.** (2005) *The Coastal Zone: Papers in Honor of H. Jesse Walker. Southeastern Geographer.*

### **Non-refereed Contributions**

1. **Houser, C.**, (2020) The Scars of Lost Instruments and Parasites. *Journal of Coastal Research Special Issue*, No 101.
2. **Houser, C.**, (2017) Creating sustainable and scalable high impact experiences: Don't forget the faculty. *University Affairs.*
3. Bishop, M.P., and **Houser, C.** (2016) Geomorphological Mapping and Geospatial Technology. *Encyclopedia of Geography.*
4. **Houser, C.**, and Ellis, J. (2013) ESEX Commentary: A Tribute to the Influence of Dr. Robin Davidson-Arnott in Coastal and Aeolian Geomorphology. *Earth Surface Processes and Landforms.*
5. **Houser, C.** (2013) *Alongshore variation in nest and false crawl distribution of Loggerhead turtles along St. Joseph Peninsula, Florida.* Report to the University of Florida, 19 pp.

6. Hill, P R; Butler, R W; Elner, R W; **Houser, C**; Kirwan, M L; Lambert, A; Lintern, D G; Mazzotti, S; Shaw, A; Sutherland, T; Levings, C; Morrison, S; Petersen, S; Solomon, S (2013). Geological Survey of Canada, Open File 7259, 71 pages, doi:10.4095/292672.
7. **Houser, C.** (2012) *Impacts of Oversand Vehicles at Assateague Island National Seashore*. Report to the National Park Services, 163 pp.
8. **Houser, C.** (2011) *Geologic framework assessment for Gulf Islands National Seashore*. Report to the National Park Services, 451 pp.
9. Meyer-Arendt, K.J., **Houser, C.**, and McKinney, N., (2010) *Direct and indirect mortality associated with tropical cyclones*. Report to NOAA, 25 pages.
10. **Houser, C.**, (2009) *Bathymetric Controls on Rip Currents along Perdido Key*. Report to Escambia County, 29 pages.
11. **Houser, C.**, (2009) Barrier Islands. *Encyclopedia of Geography*.
12. **Houser, C.**, (2008) *Role of Cargo Vessels in Salt Marsh Erosion at Fort Pulaski National Monument*. Report to Fort Pulaski National Monument, National Park Service, 38 pages.
13. **Houser, C.**, (2005) *Statistical verification of trends in water quality for selected British Columbia rivers*. Water, Air and Climate Change Branch, Ministry of Water, Land and Air Protection, 51 pages.
14. **Houser, C.**, (2003) *Statistical verification of trends in water quality for selected British Columbia rivers*. Water, Air and Climate Change Branch, Ministry of Water, Land and Air Protection, 57 pages.
15. Nickling, W.G., and **Houser, C.** (1999) *A methodology for the Estimation of vertical PM<sub>10</sub> fluxes from dust emission factors for different fugitive dust sources*. EPA contract 68-D70067 WA2-01, 25 pages.
16. **Houser, C.**, and Mason, S. (1995) *Lake Simcoe littoral zone study*. Lake Simcoe Fisheries Assessment Unit, Ontario Ministry of Natural Resources, 1995-3, 67 pages.

## PROFESSIONAL SERVICE

### Editor-in-Chief

*Physical Geography*, Taylor & Francis  
January 2020- present

### Associate Editor

*Earth Surface Processes and Landforms*  
December 2013-December 2018

### Special Editor

*Earth Surface Processes and Landforms* special issue on Coastal and Aeolian  
Geomorphology in recognition of the career of Dr. Robin Davidson-Arnott

### Manuscript Reviews (Since 2007)

Reviewed >100 articles for 35 different journals since 2007 not including articles reviewed for ESPL as associate editor or *Physical Geography* as Editor-in-Chief. *Marine Geology*, *Geomorphology*, *Journal of Geophysical Research- Atmospheres*, *Journal of Geophysical Research- Earth Surface*, *Journal of Geophysical Research- Oceans*, *Geophysical Research Letters*, *Treatise in Geomorphology*, *Geologica Acta*, *Journal of Waterway, Port, Coastal and Ocean Engineering*, *Water Resources Research*, *Earth Surface Processes and Landforms- now Associate Editor*, *Aeolian Research*, *Journal of Coastal Research*, *Marine Systems*, *Southeastern*

*Geographer, GeoJournal, Journal of Applied Geography, Journal of Maps, Marine Ecology Progress Series, Singapore Journal of Tropical Geography, Shore and Beach, Sedimentary Geology, Limnology and Oceanography, Natural Resource Modeling, Earth Science Review, Estuarine, Coastal and Shelf Science, Ocean and Coastal Management, Estuaries and Coasts, Journal of Geoscience Education, Landscape Ecology, Physical Geography, State of the Total Environment, Wetlands, Natural Hazards, Canadian Journal of Earth Science, Journal of Geography in Higher Education, Studies in Higher Education, Journal of Sedimentary Research, Journal of Coastal Conservation, Journal of Geography, Journal of Teaching in International Business, Journal of Pedagogy in Higher Education*

### **Book Proposal Review**

Chanson, *Tidal Bores*

### **Proposal Review**

*National Science Foundation*

*Natural Science and Engineering Research Council*

*Georgia National Science Foundation*

*Council for the Earth and Life sciences, The Netherlands*

*Exploratory Research Programs, Romania*

*Canada Foundation for Innovation*

*National Park Service*

### **NSF Panel Review**

*EAR REU Panel Review, November 2012*

*EAR REU Panel Review, December 2018*

### **Textbook Reviews**

Brooks/Cole *Essentials of Physical Geography*, 8e, Gabler/Petersen/Trapasso

Freeman Key *Concepts in Geomorphology*, Bierman and Montgomery

Camb. Univ. Press *Introduction to Coastal Process. and Geomorph.*, Davidson-Arnott

Oxford Press *Physical Geography*, Blij (2)

W.H. Freeman Press *Living Physical Geography*, Gervais (Chapter review)

W.H. Freeman Press *Living Physical Geography*, Gervais (Technical review)

### **Conference Organization**

2027 *Coastal Zone Canada Conference*

Coordinator of conference at the University of Waterloo

2023 *Coastal Zone Canada Conference*

Member of Organizing Committee

2019 *50<sup>th</sup> Binghamton Geomorphology Conference*

2013 *American Geophysical Union*

Co-Coordinator: *Effective Strategies for Undergraduate Research Experiences I and II*

2012 *American Geophysical Union*

Co-Coordinator: *Coastal Processes and Landforms*

2012 *Geological Society of America*

Co-Coordinator: *Beach-Dune Interaction*

2011 *American Association of Geographers*

Co-Coordinator: *Coastal Geomorphology Sessions in Honor of Robin*

- Davidson-Arnott (5 sessions with 20 speakers)*
- 2010 *American Association of Geographers*  
Co-Coordinator: *Coastal Geomorphology and Management Sessions*
- 2008 *Geological Society of America*  
Technical Session Coordinator: *Trends in Geomorphology*  
Technical Session Coordinator: *Coastal and Aeolian Geomorphology*  
*Kirk Bryan Memorial Field Trip Organizer and Lead*
- 2006 *International Conference on Aeolian Research*  
Technical Session Coordinator: *Coastal Aeolian Processes*
2001. *American Association of Geographers*  
Organizer and Chair: *Aeolian Processes and Landforms*

**External Reviewer for United States Army Corp of Engineers (through Battelle)**

February 2011-Present: Mississippi River-Gulf Outlet (MRGO) IEPR  
September 2011- March 2012: Barataria Basin (BBBS) IEPR

**Listserv Moderator**

*Geomorph-List moderator*, June 2009- present  
An email distribution list connecting over 2400 professional and academic geomorphologists around the world for the International Association of Geomorphologists

**Professional Memberships**

American Geophysical Union  
Geological Society of America  
Geomorphology and Quaternary Specialty Group  
American Association of Geographers  
Coastal and Marine Specialty Group of the AAG, Board Member (2008-2010)  
Coastal and Marine Specialty Group of the AAG, Treasurer (2010- 2011)  
Sigma Xi Research Society

**OUTREACH**

**National Rip Current Messaging Team**

National Oceanographic and Atmospheric Administration  
June 2015-June 2022

**PEI Rip Current Taskforce**

**Parks Canada**  
**June 2018-June 2022**

**Invited Keynote Talks**

Study abroad benefits the faculty, Association of Texas Graduate Schools Banquet, September 24, 2015.

Outreach and Engagement in Research, Student Research Week, Texas A&M University  
April 4, 2016

Authentic Outreach and Engagement, Graduate Studies and Research Recognition Banquet, Texas A&M University- Central Texas, April 29, 2016

**Invited Lectures/Presentations**

Water Safety and Drowning Prevention Webinar, UNA, June 2020

Fuzzy Boundaries: The Beach-dune interface, Arizona State University, Jan 2020



Rip current hazard in PEI, June 2019  
 Rip current hazard in the Maritimes, Various Locations in NB, PEI, June 2018  
 Authentic Engagement and Outreach, University of Windsor, April 2016  
 Pathways to the Geosciences, University of North Carolina System, Jan. 2016  
 Importance of Framework Geology to the Texas Coast, Baylor University, Jan. 2016  
 Impacts of Driving on the Beach, Texas Beach and Dune Forum, September 2015  
 Scales of barrier island resiliency, North Carolina Dune Forum, October 2015  
 Barrier island recovery, University of West of Florida, September 2014  
 Study abroad and research opportunities in the College of Geosciences, Jan. 2013  
 Study abroad and research opportunities in the College of Geosciences, Nov. 2013  
 Competing initiatives at the Soltis Center, Landscape Architecture, February 2014  
 Nearshore, beach and dune interaction, University of Puerto Rico, November 2013  
 Barrier Island Management, TAMU ABS IGERT, April 2013  
 Beach-Dune Recovery, TAMU Civil Engineering, March 2013  
 Ecohydrology of a Cloud Forest, Geology, University of Costa Rica, July 2012  
 Rip Current Hazard in Northwest Florida, TAMU Geography, September 2010  
 Rip Currents at Pensacola Beach, University of West Florida, March 2010  
 Barrier Island Response and Recovery, TAMU Geology, January 2010  
 Bed elevation changes in the swash zone, TAMU Oceanography, October 2008  
 Boat versus wind waves in bank erosion, Georgia Ports Authority, September 2008  
 Hurricane Impact and Recovery, Leisure Learning Society, November 2006  
 Geologic Controls on Road Damage, National Park Service, October 2006  
 Geologic Controls on Island Geomorphology, National Park Service, September 2006  
 Response and Recovery of Santa Rosa Island, Florida State University, June 2006  
 Dune response and recovery to hurricanes, AWMA, May 2006  
 Impact of Hurricane Ivan on Santa Rosa Island, Democratic Women Voters, April 2006

### **Local Environmental Issues**

Dredging and spoil placement: Pensacola Pass, National Park Service, September 2006  
 Post-hurricane designs for County Road 399, National Park Service, October 2006  
 Gulf Islands National Seashore Scoping Summary, National Park Service, Ongoing

### **Media Presentations**

The National: CBC  
     National Park visitors to take photos to track climate change (December 2021)  
     Impacts of Hurricane Fiona along the north shore of PEI (October 2022)  
 The National: CTV  
     Impacts of Hurricane Fiona along the north shore of PEI (October 2022)  
 CTV Morning  
     Impacts of Hurricane Fiona along the north shore of PEI (October 2022)  
 The Atlantic  
     Beach Currents don't have to be this deadly (June 2022)  
 CBC Radio  
     Impacts of Hurricane Fiona along the north shore of PEI (October 2022)-multiple  
     Beach hazards in a time of COVID-19 (July 2020)  
     Shoreline erosion along Lake Erie (May 2020)  
     Rip Current Hazard in the Great Lakes and in the Maritimes (June 2018, 2019)  
     Multiple shows about programs in Faculty of Science

Weather Channel

Rip Currents, Driving on the Beach, Diving (August 2014)

National Public Radio

Post-Sandy dune recovery (December 2012)

Scientific American

The Science behind Superstorm Sandy's Crippling Storm Surge (November 2012)

<http://www.scientificamerican.com/article.cfm?id=how-to-protect-new-york-city-from-storm-surges>

University Affairs

How to get students to commit to high-impact learning (June 2018)

Study abroad experiences are not just for students (June 2017)

The Conversation

Why your tourist brain may try to drown you (March 2019)

How self-isolation fatigue may lead to more beach drownings (July 2020)

Texas Sea Grant Monthly

Description of the rip current perception study

Science and the Sea

2 radio programs on rip currents related to rip current research

Pensacola News Journal

Fort Pickens Road: Crossroads, January 2007 (Lead Story)

Lonely Road to Recovery, November 2006

Erosion will get Worse, March 2006 (Lead Story)

WEAR-TV

Coastal erosion on Santa Rosa Island, March 2006

WUWF, National Public Radio

Cold front erosion versus Hurricane erosion, March 2006

WUWF-TV

Tsunamis and potential for the Gulf of Mexico, Inside UWF, January 2005

Coastal erosion along Santa Rosa Island, Being Green, January 2006

Project Greenshores, Inside UWF, January 2007

Impact of roads on dune recovery, Being Green, February 2007

### **University and College Media**

Division of Marketing & Communications

High Impact Learning Experiences Abroad, September 2011

Texas A&M University, Foundation of Former Students

Pura Vida and Gig Em', November 2014.