Kenneth (Kenny) Broad

curriculum vitae

Contact info: kbroad@miami.edu / (305) 528-6319

Current Position:

Professor, Department of Environmental Science and Policy, Rosenstiel School of Marine, Earth, and Atmospheric Science (RSMAS), University of Miami (2011-present)

Director, Leonard and Jayne Abess Center for Ecosystem Science and Policy, University of Miami (2009-present)

Secondary or Joint Appointments:

Co-director, Center for Research on Environmental Decisions, Columbia University Adjunct Research Scientist, Lamont Doherty Earth Observatory of Columbia University Affiliated Faculty, Department of Anthropology, University of Miami

Citizenship: USA

Education:

Columbia University, New York	Ph.D.	1999	(anthropology)
Thesis: Climate, Culture, and Values:	El Niño	1997-98	and Peruvian Fisheries
University of Miami	M.A.	1992	(marine affairs)
University of California, Santa Barbara	B.A.	1989	(literature–College of Creative Studies)

Academic Experience:

University of Miami	Professor, Environmental Science & Policy (form	nerly MES) 6/2011-present
University of Miami	Chair, Marine Ecosystems and Society(MES)	6/2013-6/2016
University of Miami	Associate Professor w/tenure	6/2008-5/2011
University of Miami	Assistant Professor	7/2004-5/2008
University of Miami	Research Assistant Professor	2001-6/2004
Columbia University	Adjunct Research Scientist	7/2008-present
Columbia University	Adjunct Associate Research Scientist	2001-6/2008
Columbia University	Associate Research Scientist	2000-2001
Columbia University	Post-Doctoral Research Scientist	1999-2000
Columbia University	Senior Staff Associate	1997-1999

Honors & Awards:

University of California at Santa Barbara, College of Creative Studies - Graduation Commencement Speaker, 2019

University of California at Santa Barbara, College of Creative Studies 50th Anniversary Honorary Council, 2017-2018

Distinguished Visiting Fellow, University of California at Santa Barbara, January 2017

National Geographic Society / Rolex Explorer of the Year, 2011 (with the late Wes Skiles)

The Explorers Club, Fellow National, 2008-present

Florida Trend Magazine, Trendsetters: Today and Beyond Award, 2008

National Geographic Society, Emerging Explorer Award, 2006

Ransom Everglades, Distinguished Alumni Award, 2006

Mexican Academy of Sciences, Distinguished Professor Visitors Program, 2004-2005.

Teachers College, Columbia University Gardner Cowles Fellow in Applied Anthropology, 1996-1997

Columbia University, Global Systems Initiative Training Grant, 1995-1996

Columbia University, Teachers College General Scholarship, 1993-1995

Our World-Underwater Associate Scholar Award, 1992-93

National Speleological Society Abe Davis Safe Cave Diving Award, 1992

National Association for Cave Diving Bronze Wakulla Award, 1992

Admirals of the Fleet of Florida Scholarship, 1991

Certification/Licensure:

United States Coast Guard 25-ton Licensed Captain (200-ton inactive status)

Certified --U.S. / FAA Helicopter Pilot: Commercial & Instrument Ratings: R22, R44, R66, Airbus H125 (AS B3e)

Certified--State of Florida Emergency Medical Technician (inactive status)

Certified--National Board of Diving and Hyperbaric Technology - Diver Medical Technician

Certified--National Speleological Society/Cave Diving Section (NSS/CDS)

Certified--NSS/CDS Recovery Specialist

Certified--National Association for Cave Divers

Certified--Confederation Mondiale des Activites Subaquatiques Commission Speleologie (2 Star Speleology Diver)

Certified--NOAA Working Diver

Certified-IANTD Closed Circuit Rebreather Diver (Cis-Lunar, Megalodon, K.I.S.S. Sidekick & Sidewinder)

Certified--International Association of Nitrox Divers (IAND) TRIMIX Diver

Certified—PADI Master Freediver

Instructor--IAND Technical Nitrox Instructor (inactive)

Instructor--American Nitrox Divers (inactive)

Instructor--Professional Association of Dive Instructors (inactive)

Professional Activities (selected list, not including conference presentations):

Mentor, The Explorers Club, 2024-present

Board of Trustees, Miami Waterkeepers, 2015-present

Selection Committee, Pew Foundation Fellows Program in Marine Conservation, 2016-2018

Member, Stanford University Center for Ocean Solutions Working Group on Socioecological Resilience in Small Scale Fisheries, 2013-2016

Chief Science Officer, Bahamas Cave Research Foundation, 2015-present

Member, Miami Science Barge Advisory Committee, 2015-2017

Member, Frost Museum of Science, Science and Education Advisory Board, 2014-2016

Member, HighWaterLine Advisory Committee, 2013-2016

Member, National Geographic Society Expedition Council Advisory Board, 2012-2015

Member, Miami Consortium for Latin American and Caribbean Studies Advisory Board, 2011-2014.

Science Advisor, COMPASS (Communication Partnership for Science and the Sea), 2009-2011.

Member, NOAA Science Advisory Board - Climate and Global Change Working Group, 2003-2008.

Advisory Committee, Cape Eleuthera Institute, 2007-2018.

Advisory Committee, Harmony Institute, 2008-2012

Member, National Center for Ecological Analysis and Synthesis (NCEAS) Working Group "A synthetic approach to the science of ecosystem-based management" 2005-2007.

Special Advisor, Eastern China Normal University "First Undergraduate Conference on Climate, Weather, Water and Society (2008)" Shanghai, China.

Steering Committee, COMPASS Ecosystem Based Management Strategy Planning Workshop, 2006-07

Mentor, NSF Dissertation Initiative for the Advancement of Climate Change Research, 2007

Steering Committee, University of Florida Symposium "Climate, Agriculture, and Natural Resources Management" with a subtitle "Addressing Research, Teaching, and Extension Needs of Tomorrow", 2006-07

Member, American Meteorological Society - Committee on Societal Impacts, 2003-present. International Steering Committee, GLOBEC FOCUS 4 (Human Dimensions of Global Change), 2002-present.

Co-chair, CLIOTOP (Climate Impact on Oceanic Top Predators) Working Group 6 (socioeconomic group), 2003-2004.

International Steering Committee, "Forum de Debates Relações Natureza e Sociedade no Semi-Árido" (Forum to discuss the relationship between nature and society in the Brazilian semi-arid), IRI-FUNCEME, August 20-25, 2002.

International Steering Committee, Ecuadorian Climate Outlook Forum, 2002.

Member, Columbia University Planning Committee for M.S. Climate and Society Program, 2001 - 2002.

International Steering Committee, "Climate, Ecosystems, and Fisheries of the Pacific: Seeking Fresh Approaches to Key Research Issues", IRI, IPCC, Honolulu, HI, 2001.

Selection committee, University of Florida Agricultural Extension Faculty Specialist, 2003 Selection committee, UCAR IRI post doctoral fellow, 2000, 2001, 2002.

Panelist, Florida Board of Education, Higher Education Funding Advisory Council, June 11, 2002. Selection committee, IRI Associate Research Science for Climate Monitoring Division, 2001.

Editorial Responsibilities:

Associate Editor & Member of Editorial Board of Weather, Climate, and Society (Journal of the American Meteorological Society), 2010-2012

Editorial Advisory Board, *Media+Environment*, UC Press, 2018-present Editorial Board, *Journal of Environmental Media*, 2020-present

Journal & Proposal Reviews: Nature, Science, American Anthropologist, American Ethnologist, American Fisheries Society, Biological Conservation, Bulletin of the American Meteorological Society, Cultural Anthropology, Conservation and Society, Climatic Change, Climate Research, Current Anthropology, Environment and Development Economics, Fisheries Oceanography, Global Environmental Change, Journal of Applied Meteorology, Journal of Coastal Zone Management, Human Organization, Oceanography, Policy Science, Technology and Human Values, EPA, NSF, NOAA, NASA.

University Committees (selected list, does not include all tenure/search committees):

UM Representative, Bahamas National Trust advisory board, 2025-present

Chair, UM Dive Control Board, 2023-present

Internal Advisory Committee, UM Climate Resilience Institute, 2024-present

Advisory Committee, UM Global Health Studies Program, 2023-present

Advisory Committee, University of Miami School of Law Center for Ethics and Public Service, 2015-present

Climate Resilience Academy, University Miami-Executive Director Search Committee member, 2022-2023

Chair, Faculty Search Committee for five tenure-track hires: Dept of Environmental Science and Policy, Rosenstiel School, 2022-23

Dept. Co-Representative, Rosenstiel School Council, 2022-2023

Aircraft Center for Earth Studies, University of Miami - Director, Search Committee member, 2021

University of Miami, RSMAS Advisory Board on Tenure and Promotion, 2021-present

University of Miami, RSMAS Dive Control Board, 2017-2023

Academic Advisory Committee, Global Health and Society Masters Program, 2019-present

Advisory Committee, University of Miami Institute for Advanced Study of the Americas, 2018-2021 Search Committee, RSMAS, Dive Safety Officer, 2020

Steering Committee, Miami Climate Symposium 2020: Predicting and Living with Extremes, 2020

RSMAS Advancement Committee, 2009-2014

RSMAS Re-organization Committee, 2009-2010

RSMAS Ship Operations Committee, 2008-2010

RSMAS Dean's Search Committee, 2008-2009

(Chair) RSMAS Ad-hoc Strategic Planning Group, 2005-2007

National Center for Coral Reef Research (NCORE), 2010-2012

UM "Communication Across the Curriculum" Quality Enhancement Program Implementation Committee, 2007

UM Center for Latin American Studies Executive Board, 2003-2012

UM Abess Center for Ecosystem Science and Policy Advisory Committee, 2003-2009

UM Knight Center for International Media, Endowed Chairs Search Committee 2007

CESP "Academics in the Environment" Steering Committee, 2005

Faculty Senate Committee on Women and Minorities, 2002-2004

University Research Council Selection Committee, 2001-2004

College of Arts and Sciences – RSMAS Joint Faculty Working Group, 2003-2004

RSMAS Faculty Marshal, Commencement Ceremony, 2005

RSMAS Post-doc Selection Committee, 2001

Publications (*indicates supervised graduate student or postdoc):

Books & monographs published:

Bakun, A. and <u>K. Broad</u> (Editors). (2002) **Climate and Fisheries: Interacting Scales, Paradigms and Policy Approaches**. New York: Columbia Earth Institute and International Research Institute for Climate Prediction, IRI Publication-IRI-CW/02/1, 70 pp.

Van Nguyen, C., B. Hong Long, <u>K. Broad</u>, A.R. Rasmussen. (2016) **Ran Bien Vietnam** (Sea Snakes of Vietnam). Nha Trang: Institute of Oceanography, Vietnam Academy of Science and Technology, 62 pp.

- Juried or refereed journal articles and book chapters (*indicates supervised graduate student or postdoc):
- *Berman, G., Owley, J., <u>Broad, K.</u> (2026). Using International Law to Protect Marine Biodiversity from Deep-Sea Mining. **New York University Journal of Environmental Law** <u>in press.</u>
- *Carbaugh-Rutland, A., <u>Broad, K.</u>, Owley, J. (2025). The Ironically Important Role that Incidental Take Authorizations Play in Whale Conservation. **Stanford Journal of Environmental Law**, (44) 167-222.
- *Carrère, A., <u>Broad, K.</u>, Lombard, J., Hector, D., & Mach, K. J. (2024). A typology of climatopias: Visualizations, motivations, and transformations. **Environmental Research: Climate**, **3** (2024) 045024.
- Bethel, N., <u>Broad, K.</u> Moore, A., A. Thomas, S. Wise. (2024) We are not OK: The Bahamian Plantationocene, Hurricane Dorian, and the limits of academic genre. **International Journal of Bahamian Studies**. Vol 30, pp. 59-80. doi: 10.15362/ijbs.v30i1.569
- *Carrère, A., <u>Broad, K.</u>, & Mach, K. J. (2024). Defining "Climatopia:" An evaluation framework to support transformational adaptation in climate-inspired utopic design. **One Earth**, Vol 7, Issue 10, 18 Oct, pp.1692-1704.
- Broos, H., *D. Goldwert, A.S. Dev, <u>K. Broad</u>, K.R. Timpano (2023) The Impact of Anxiety and Intolerance of Uncertainty on Climate Change Distress, Policy Support, and Pro-Environmental Behavior. **British Journal of Clinical Psychology**, 00, 1-15. https://doi.org/10.1111/bjc.12441
- Berger, L.R., T, Makhubela, K. Molopyane, A. Krüger, P. Randolph-Quinney, M. Elliott, B. Peixotto, A. Fuentes, P. Tafforeau, V. Beyrand, K. Dollman, Z. Jinnah, A.B. Gillham, K. Broad, J. Brophy, G. Chinamatira, P.H.M. Dirks, E. Feuerriegel, A. Gurtov, N. Hlophe, L. Hunter, R. Hunter, K. Jakata, C. Jaskolski, H. Morris, E. Pryor, M. Ramaphela, E. Roberts, J.S. Smilg, M. Tsikoane, S. Tucker, D. van Rooyen, K. Warren, C.D. Wren, M. Kissel, P. Spikins, J. Hawks (2023) Evidence for deliberate burial of the dead by Homo naledi. eLife;12:RP89106. DOI: https://doi.org/10.7554/eLife.89106
- Wester, J., <u>K. Broad</u>, K.H. Backe, K. Callwood, R. Fielding, J. Jacquet, C. Macdonald, A. Moore (2023) Culture and historic value as ways of understanding complex human health-ocean linkages. In: **Oceans and Human Health: Opportunities and Impacts** (second edition), Edited by L.E. Fleming, L.B. Alcantara Creencia, W.H. Gerwick, H.C. Goh, M.O. Gribble, B. Maycock, H. Solo-Gabriele, (eds.) New York: Elsevier Science Publishers, pp. 39-70.
- Peros, M.C., S. Collins, J.G. Martínez-López, L.W. Viñola López, M.A. Pereira Sosa, L.F. Brisson, F. Hardy, M. Lamothe, P. J. van Hengstum, B. Phillips, <u>K. Broad</u>, J. Heinerth, E.B.Cabrera, Z. Masson, G. Deole, F. Oliva, C. Jaskolski, F.E. Amador (2023) Multi-proxy paleohydrological and paleoecological reconstruction of a subaquatic cave in western Cuba. **Palaeogeography**, **Palaeoclimatology**, **Palaeoecology**, Vol 627, 1 Oct, 111725, ISSN 0031-0182

- Millet, B., S. Majumdar, A. Cairo, B.D. McNoldy, S.D. Evans, <u>K. Broad</u> (2022) Exploring the Impact of Visualization Design on Non-Expert Interpretation of Hurricane Forecast Path. **International Journal of Human-Computer Interaction**, 1–16. DOI: 10.1080/10447318.2022.2121036
- Evans, S.D., <u>K. Broad</u>, A. Cairo, S. Majumdar, B.D. McNoldy, B. Millet, L. Rauk (2022) An Interdisciplinary Approach to Evaluate Public Comprehension of the "Cone of Uncertainty" Graphic, **Bull. Amer. Meteor. Soc.**, 103(10), E2214–E2221. https://doi.org/10.1175/BAMS-D-21-0250.1
- Ballou, L., T.M. Iliffe, B. Kakuk, B.C. Gonzalez, K.J. Osborn, K. Worsaae, K. Meland, <u>K. Broad</u>, H. Bracken-Grissom, J. Olesen. Monsters of the Dark: Systematics and biogeography of the stygobitic genus *Godzillius* (Crustacea: Remipedia) from the Lucayan Archipelago. (2021) **European Journal of Taxonomy**, vol. 751:115-139
- Miner, K. R., P.A. Mayewski, Hubbard, M., <u>K. Broad</u>, H. Clifford, A.P. Gajurel, C. Jaskolski, W. Li, I. Napper, M. Potocki, J. Priscu. (2021) A perspective of the cumulative risks from climate change on Mt. Everest: findings from the 2019 expedition. **International Journal of Environmental Research and Public Health**, Feb:18(4) doi: 10.3390/ijerph18041928
- Miner, K. R., P.A. Mayewski, S.K. Baidya, <u>K. Broad</u>, H. Clifford, A.P. Gajurel, B. Giri, M. Hubbard, C. Jaskolski, H. Koldewey, W. Li, T. Matthews, I. Napper, Imogen, B. Perry, M. Potocki, J.C. Priscu, A. Tait, Alex, R. Thompson, S. Tuladhar, Subash. (2020) Emergent risks in the Mt. Everest region in the time of anthropogenic climate change. **One Earth**, doi:10.5281/zenodo.3972343
- *Wester, J., <u>K. Broad</u>. (2020) Direct Potable Water Recycling in Texas: Case Studies and policy implications. **Journal of Environmental Policy & Planning**, doi.org/10.1080/1523908X.2020.1798749
- Millet, B., *Carter, A., <u>Broad, K.</u>, Cairo, A., Evans, S. (2020) Hurricane Risk Communication: Visualization and Behavioral Science Concepts. **Weather, Climate, & Society**, 12(2), 193–211. https://doi.org/10.1175/WCAS-D-19-0011.1
- Arienzo, M.M., S. Mehterian, P.K. Swart, <u>K. Broad</u>, B. Kakuk. (2019) Dripwater and calcite geochemistry variations in a monitored Bahamas cave. **Geochemistry**, **Geophysics**, **Geosystems**, Vol. 20, https://doi.org/10.1029/2019GC008339
- *Frawley, T.H., L. Crowder, <u>K. Broad</u>. (2019) Heterogenous perceptions of socio-ecological change among small-scale fishermen in the Central Gulf of California: implications for adaptive response. **Frontiers in Marine Science**, 14 March https://doi.org/10.3389/fmars.2019.00078
- *Aguilera, S., <u>K. Broad</u>, C. Pomeroy. Adaptive Capacity of the Monterey Bay Wetfish Fisheries: Proactive Responses to the 2015-16 El Niño Event. (2018) **Society & Natural Resources**. 31(12):1338-1357.

- Velez, M.A., A. Pfaff, <u>K. Broad</u>, A. Hamoudi, R. Taddei. Contracts versus Trust for Ecosystems Services: equity and efficiency in resource allocation and environmental provision. (2018) **Water Resources & Economics.** 12 April. https://doi.org/10.1016/j.wre.2018.04.001
- Milch, K., <u>K. Broad</u>, B., Orlove, R. Meyer. (2018) Decision Science Perspectives on Hurricane Vulnerability: Evidence from the 2010-2012 Atlantic Hurricane Seasons. **Atmosphere**. Vol. 9 (32) doi:10.3390/atmos9010032
- Marlon, J., S. Van der Linden, P.D. Howe, A. Leiserowitz, S.H. Lucia Woo, <u>K. Broad</u>. (2018) Detecting Local Environmental Change: The role of experience in shaping risk judgments about global warming. **Journal of Risk Research**. DOI: 10.1080/13669877.2018.1430051
- *Brett, A. and <u>K. Broad.</u> (2018) The Litigation of Exploration. **Villanova Law Review**. Vol 63(2), pp. 241-268.
- Jacques, P.J., K. Broad, W. Butler, C. Emrich, S. Galindo, C. Knox, K.W. Rizzardi, K. Ziewitz. (2018) Human Dimensions and Communication of Florida's Climate. In **Florida's Climate:** Changes, Variations, and Impacts. (Eds.) Chassignet, E.P., J.W. Jones, Misra V., Obeysekera, J. Gainesville, FL: Florida Climate Institute. https://doi.org/10.17125/fci2017
- *Treuer, G., <u>K. Broad</u>, R. Meyer. (2018) Using simulations to forecast homeowner response to sea level rise in South Florida: Will they stay or will they go? **Global Environmental Change**. (48)108-118.
- *Arienzo, M.A., P. K. Swart, <u>K. Broad</u>, A. Clement, A. Pourmand, A., B. Kakuk. (2017) Multi-proxy evidence of millennial scale climate variability from multiple Bahamian speleothems. **Quaternary Studies Review.** Vol. 161, pp. 18-29.
- Mumby, P., J. Sanchirico, <u>K. Broad</u>, M. Beck, P. Tyedmers, T. Okey, L. Crowder, E. Fulton, D. Kelso, J. Kleypas, M. Morikawa, S. Munch, P. Glynn, K. Matthews, J. Lubchenco. (2017) Avoiding a crisis of motivation for ocean management under global environmental change. **Global Change Biology**. (23), pp. 4483–4496.
- *Wester, J., Timpano, K.R., Çek, D., & <u>Broad, K.</u> (2016) The Psychology of Recycled Water: Factors Predicting Disgust and Willingness to Use. **Water Resources Research**. (52), pp. 3212-3226.
- *Arienzo, M.A., P. K. Swart, Pourmand, A., <u>Broad, K.</u>, Clement A., Murphy L.N., Vonhof, H.B., Kakuk, B. Bahamian speleothem reveals temperature decrease associated with Heinrich stadials. (2015) **Earth and Planetary Science Letters**. Vol. 430, 15 Nov., pp. 377-386.
- *Aguilera, S.E., Cole, J., Finkbeiner, E.M., Le Cornu, E., Ban, N.C., Carr, M.H., Cinner, J.E., Crowder, L.B., Gelcich, S., Hicks, C.C., Kittinger, J.N., Martone, R., Malone, D., Pomeroy, C., Starr, R.M., Seram, S., Zuercher, R., <u>K. Broad</u>. (2015) Managing small-scale commercial fisheries for adaptive capacity: Insights from dynamic social-ecological drivers of change in Monterey Bay. **PLOS ONE**, 10(3): e0118992. doi:10.1371/journal.pone.0118992.

- *Wester, J., K.R. Timpano, D. Cek, Lieberman, D., Fieldstone, S.C., <u>K. Broad</u>. 2015. Psychological and Social Factors Associated with Wastewater Reuse Emotional Discomfort. **Journal of Environmental Psychology**. Vol. 42, June, pp. 16-23.
- Nguyen, C., T. Nguyen, A. Moore, A. Montoya, A. Rasmussen, <u>K. Broad</u>, V. Harold, Z. Takacs. 2014. Hidden Catch: Sea Snake Exploitation in the Gulf of Thailand. **Conservation Biology**. Vol. 28, pp. 1677-1687.
- Micheli, F. P.J. Mumby, D.R. Brumbraugh, <u>K. Broad</u>, C. P. Dahlgren, Harborne, A.R., K. E. Holmes, C.V. Kappel, S. Litvin, J. N. Sanchirico. 2014. High Vulnerability of ecosystem function and services to diversity loss in Caribbean coral reefs. **Biological Conservation**. Vol. 171, March, pp. 186-194.
- Meyer, R., E.J. Baker, <u>K. Broad</u>, B. Orlove, J. Czajkowski. 2014. The Dynamics of Hurricane Risk Perception: Real-Time Evidence from the 2012 Atlantic Hurricane Season. **Bulletin of the American Meteorological Society**. Vol. 95, pp. 1389-1404.
- Kittinger, J., E. Finkbeiner, N. Ban, <u>K. Broad</u>, M.H. Carr, J. Cinner, S., Gelcich, M. Cornwell, Z. Koehn, X. Basurto, R. Fujita, M.R. Caldwell, L.B. Crowder. 2013. Emerging frontiers in social-ecological systems research for sustainability of small-scale fisheries. **Current Opinion in Environmental Sustainability**. Vol. 5, Issues 3-4, pp. 352-357.
- Reed MS, Kenter J, Bonn, A, <u>Broad K</u>, Burt TP, Fazey IR, Fraser EDG, Hubacek K, Nainggolan D, Quinn CH, Stringer LC, Ravera F. 2013. Participatory scenario development for environmental management: a methodological framework illustrated with experience from UK uplands. **Journal of Environmental Management**. Vol.128, pp. 345-362.
- *Bolson, J. and <u>K. Broad</u>. 2013. Early adoption of climate information: lessons learned from South Florida water resource management. **Weather, Climate, and Society**. Vol. 5(3), pp. 266-281.
- Meyer, R., <u>K. Broad</u>, B. Orlove, *N. Petrovic. 2013. Dynamic Simulation as an Approach to Understanding Hurricane Risk Response: Insights from the Stormview Lab. **Risk Analysis**. Vol. (33) pp. 1532-1552.
- Pfaff, A., *M.A. Velez, R. Taddei, <u>K. Broad</u>. 2013. Unequal Information, Unequal Allocation: Bargaining Field Experiments in NE Brazil. **Environmental Science & Policy**, Vol. 26, pp. 90-101.
- Roncoli C., Breuer N, Zierden D, <u>K. Broad</u>. Hoogenboom G. 2012. The Art of the Science: Climate Forecasts for Wildfire Management in the United States. **Climate Change Letters**, Vol. 113, Issue 3 (2012), Page 1113-1121.
- Orlove B., G. Podesta, R. Taddei, <u>K. Broad</u>. 2011. Environmental Citizenship in Latin America: Climate, Intermediate Organizations, and Political Subjects. **Latin America Research Review**. Special Issue: 115-140.

- *Peterson, N, B., <u>K. Broad</u>, Orlove, C. Roncoli, R. Taddei, M.A. Velez. 2010. Participatory processes and climate forecast use: sociocultural context, discussion, and consensus. **Climate and Development**. Vol. 2: 14-29.
- A. Crane, T.A., C. Roncoli, J. Paz, N. Breuer, <u>K. Broad</u>, K.T. Ingram, G. Hoogenboom. 2010. Forecast skill and farmers' skills: Seasonal climate forecasts and agricultural risk management in the southeastern United States. **Weather, Climate, & Society**. Vol. 2: pp. 44-59.
- Broad, K. and J. Sanchirico. Local Perspectives on Marine Reserve Creation in the Bahamas. 2008. **Ocean and Coastal Management**. Vol. 51(11) pp. 763-771.
- Broad, K., *Bolson, J., Clement, A., Balstad, R., Marx, S., Peterson, N., Ramirez, I. 2008. Climate and Human Health: Physics, Policy and Possibilities. In: **Oceans and Human Health: Risks and Remedies from the Sea**, Edited by Walsh, P.J., S.L. Smith, L.E. Fleming, H. Solo-Gabriele, W.H. Gerwick (eds.) New York: Elsevier Science Publishers, pp. 35-58.
- *Vedwan, N., S. Ahmad, F. Miralles-Wilhelm, <u>K. Broad</u>, D. Letson, G. Podesta. Institutional evolution in Lake Okeechobee Management in Florida: Characteristics, Impacts, and Limitations. 2008. **Water Resources Management**. Vol. 22(6) pp.699-718.
- Harborne, A.R., P.J. Mumby, C.V. Kappel, C. P. Dahlgren, F. Micheli, K. E. Holmes, J. N. Sanchirico, <u>K. Broad</u>, I.A. Elliott, D.R. Brumbaugh. 2008. Reserve Effects Versus Natural Variation in Coral Reef Communities. **Journal of Applied Ecology**. Vol. 45 pp.1010-1018.
- Breuer, N.E., VE Cabrera, KT Ingram, <u>K. Broad</u>, PE Hildebrandt. AgClimate: A case study in participatory decision support system development. 2008. **Climatic Change**. 87: 385-403.
- Mumby PJ, <u>K. Broad</u>, DR Brumbaugh, CP Dahlgren, AR Harborne, A Hastings, KE Holmes, CV Kappel, F Micheli, JN Sanchirico. 2008. Coral reef habitats as surrogates of species, ecological functions and ecosystem services. **Conservation Biology**. Vol. 22(4) pp. 941-951.
- *Peterson, N. and <u>Broad, K.</u> Climate and Weather Discourse in Anthropology: From Determinism to Uncertain Futures. 2008. In **Anthropology and Climate Change: From Encounters to Actions**. Edited by S. Crate and M. Nuttall. Left Coast Press: Walnut Creek, CA., pp.70-86.
- Steadman, DW, R Franz, GS Morgan, NA Albury, B Kakuk, <u>K Broad</u>, SE Franz, K Tinker, MP Pateman, TA Lott, DM Jarzen, DL Dilcher. 2007. Exceptionally Well Preserved Late Quaternary Plant and Vertebrate Fossils from a blue hole on Abaco, The Bahamas.

 Proceedings of the National Academy of Science. Vol 104 (50). pp. 19897 19902.
- Broad, K., A. Pfaff, R. Taddei, S. Arumugam, U. Lall, F. Assis de Souza Filho. 2007. Climate, Stream Flow Prediction and Water Management in Northeast Brazil: societal trends and forecast value. Climatic Change. Vol. 84:217-239.
- <u>Broad, K.</u>, T. Leiserowitz, *J. Weinkle, *M. Steketee. 2007. Misinterpretations of the "cone of uncertainty" in Florida during the 2004 hurricane season. **Bulletin of the American Meteorological Society**. Vol 88, Issue 5 (May 2007) pp. 651-667.

- Broad, K. and B. Orlove. 2007. Channeling Globality: The 1997-98 El Niño Climate Event in Peru. American Ethnologist. Vol 34 (2). pp. 285-302.
- Fleming, L.E., <u>K. Broad</u>, A. Clement, E. Dewailly, S. Elmir, A. Knap, S.A. Pomponi, S. Smith, H. Solo Gabriele. Emerging Public Health Risks Sourced in the Marine Environment. 2006. **Bulletin of Marine Pollution**. Vol. 53. pp. 545-560.
- Mumby, P. J., C. P. Dahlgren, A. R. Harborne, C. V. Kappel, F. Micheli, D. R. Brumbaugh, K. E. Holmes, J. M. Mendes, <u>K. Broad</u>, J. N. Sanchirico, K. Buch, S. Box, R. W. Stoffle, A. B. Gill. 2006. Fishing, trophic cascades, and the process of grazing on coral reefs. **Science**, 311: 99-101.
- Miralles-Wilhelm, F., P.J. Trimble, D. Letson and <u>K. Broad</u>. 2005. Climate-Based Estimation of Hydrologic Inflow to Lake Okeechobee, Florida. **Journal of Water Resources Planning and Management**, Sept/Oct, pp. 394-401.
- Orlove, B, <u>K. Broad</u> and A. Petty. 2004. Factors that Influence the Use of Climate Forecasts: Evidence from the 1997-98 El Niño Event in Peru. **Bulletin of the American Meteorological Society** 85(11), pp. 1735–1743.
- Pulwarty, R., <u>K. Broad</u>, and T. Finan. 2004. Science, Vulnerability and the search for equity: El Niño events, forecasts and decision-making in Peru and Brazil, in **Vulnerability: Disasters, Development and People**. Edited by G. Bankoff, G. Frerks and D. Hilhorst. London: Earthscan Publications, pp. 83-98.
- Bakun, A. and <u>K. Broad</u>. 2003. Environmental 'loopholes' and fish population dynamics: comparative pattern recognition with focus on El Niño effects in the Pacific. **Fisheries Oceanography**, **12**(4/5):458-473.
- Broad, K. 2003. Biological and Societal Impacts of Climate Variability: An example from Peruvian Fisheries. In **Handbook of Weather, Climate and Water: Atmospheric Chemistry, Hydrology, and Societal Impacts**. Edited by T. Potter and B. Coleman. New York: John Wiley & Sons, pp. 817-832.
- Broad, K., A.P. Pfaff, and M.H. Glantz. 2002. Effective & Equitable Dissemination of Seasonal-to-Interannual Climate Forecasts: Policy Implications from the Peruvian fishery during El Niño 1997-98. Climatic Change 54(4):415-438.
- Broad, K. 2002. Producing & Using Climate Forecasts: Bridging the Supply and Demand Gap in Climate Forecast Production and Use. In **La Niña and Its Impacts: Facts and Speculation**, edited by M. H. Glantz. Tokyo: Public Affairs Section, United Nations University Press, pp. 246-252.
- Agrawala, S. and <u>K. Broad</u>. 2002. Technology transfer perspective on climate forecast applications. In **Research in Science and Technology Studies: Knowledge and Technology Transfer**, edited by Marianne De Laet, Knowledge and Society series, vol. **13**: 45-69.

- Velasco-Zapata, A., and <u>K. Broad</u>. 2001. Peru country case study: Impacts and responses to the 1997-98 El Niño event. In **Once burned, twice shy? Lessons learned from the 1997-98 El Niño**, edited by Michael H Glantz, Tokyo: United Nations University Press, pp. 186-199.
- Agrawala, S., <u>K. Broad</u>, and D.H. Guston, 2001. Integrating Climate Forecasts and Societal Decision Making: Challenges to an Emergent Boundary Organization. **Science, Technology, and Human Values**, **26**(4), 454-477.
- Broad, K., and S. Agrawala, 2000. Policy Forum: The Ethiopia Food Crisis: Uses and Limits of Climate Forecasts. **Science**, **289**, 1693-1694.
- Broad, K., 2000. El Niño and the Anthropological Opportunity. **Practicing Anthropology**, **22**, No. 4:20-23.
- Carr, M. E., and <u>K. Broad</u>, 2000. Satellites, society, and the Peruvian fisheries during the 1997-98 El Niño, in **Satellites, Oceanography and Society**, edited by D. Halpern. New York: Elsevier Science, B.V. 171-191.
- Pfaff, A., <u>K. Broad</u>, and M.G. Glantz, 1999. Who benefits from Climate Forecasts? **Nature**, **397**:645-646.
- Fairbanks, R.G., M.N. Evans, J.L. Rubenstone, R.A. Mortlock, <u>K. Broad</u>, and M. D. Moore, 1997. Evaluating climate indices and their geochemical proxies measured in corals. **Coral Reefs**, **16**:S93-S100.
- Meltzoff, S.K., and <u>K. Broad</u>, 1996. The Rise of Women in Fisheries Management: The Marisquadoras of Illa de Arousa, Galicia. In **Fisheries Resource Utilization and Policy. Proceedings of the World Fisheries Congress**, Theme 2, New Delhi, 349-360.
- Broad, K., and B. Feinberg, 1995. Perceptions of Ganja and Cocaine in Urban Jamaica. **Journal of Psychoactive Drugs**, **27**:261-277.

Other works & publications:

- Raineault, N.A, and J. Flanders, eds. (2019). New frontiers in ocean exploration: The E/V Nautilus, NOAA Ship Okeanos Explorer, and R/V Falkor 2018 field season. **Oceanography** 32(1), supplement, 150 pp., https://doi.org/10.5670/oceanog.2019.supplement.01.
- Broad, K. (2010). Lose Your Mind, Lose Your Body. In **Complete Survivor Manual.** Edited by Michael S. Sweeney. Washington, D.C.: National Geographic Books.
- Leiserowitz, A. and K. Broad (2008). Florida: Public opinion on climate change. A Yale University / University of Miami / Columbia University Poll. New Haven, CT: **Yale Project on Climate**Change. http://environment.yale.edu/uploads/FloridaGlobalWarmingOpinion.pdf
- Crane, T., C. Roncoli, N. Breuer, K. Broad, J. Paz, C. Fraisse, K. Ingram, D. Zierden, G. Hoogenboom, J. O'Brien. 2008. Collaborative Approaches to the Development of Climate-

- Based Decision Support Systems: What Role for Social Sciences? **Proceedings of the 88th American Meteorological Society Annual Meetings**, New Orleans, LA, January 20-24, 2008.
- Roncoli, C., Paz, J., Breuer, N., Ingram, K., Hoogenboom, G., Broad, K. 2006. Understanding Farming Decisions and Potential Applications of Climate Forecasts in South Georgia. Southeast Climate Consortium Staff Paper SECC-06-006. Gainesville, FL.
- Vedwan, N., Broad, K., Letson, D., Ingram, K.T., Podestá, G., Breuer, N.E., Jones, J.W., and O'Brien, J.J. 2005. Assessment of Climate Information Dissemination Efforts by the Florida Consortium. SECC Technical Report Series: SECC-05-001, Gainesville, FL.
- Roncoli, C., Breuer, N., Bellow, J., Zierden, D., Ingram, KT., and Broad, K. 2006. Potential Applications of Keetch-Byram Index Forecasts for Fire Management in Georgia and Florida. SECC Technical Report Series: SECC-06-003, Gainesville, FL.
- Mumby, P. J., F. Micheli, C. P. Dahgren, S. Y. Litvin, A. B. Gill, D. R. Brumbaugh, K. Broad, J. N. Sanchirico, C. V. Kappel, A. R. Harborne, K. E. Holmes. 2006. Marine Parks Need Sharks? response. **Science**, 312: 527.
- Vedwan, N., Broad, K., Letson, D., Ingram, K.T., Podestá, G., Breuer, N.E., Jones, J.W., and O'Brien, J.J. 2005. Assessment of Climate Information Dissemination Efforts by the Florida Consortium. **Southeast Climate Consortium Technical Report Series**: SECC-05-001, Gainesville, FL.
- Broad, K. and J.N. Sanchirico. Community Perspectives on Marine Reserves. **Bahamas Biocomplexity Project In Brief Newsletter**, Nov. 2005.
- Broad, K. 2005. Book review of <u>The International Handbook of Social Impact Assessment:</u>
 <u>Conceptual and Methodological Advances</u>. H.A. Becker and F. Vanclay (eds.). Edward Elgar: Cheltenham, 2005, **Agricultural Systems**, Vol. 83, Issue 1, pp. 104-105.
- Taddei, R., K. Broad, and A. Pfaff, 2004. Integrating climate and water management in Ceará: historical background, social and legal structures, and implications. In U. Lall and F. A. Souza Filho, editors. Gerenciamento Integrado dos Recursos Hídricos com Incorporação da Previsão Climática: da Informação e Previsão Climática à Redução das Vulnerabilidades às Secas no Semi-Árido Cearense, Volume 5. IRI/FUNCEME, Palisades, New York, USA and Fortaleza, Brazil.
- Sanchirico, James N., Richard Stoffle, K. Broad and Liana McManus. 2003. Modeling Marine Protected Areas, **Science** (Letter to the Editor), **31**(4):47-48.
- Broad, K. Book review of <u>Currents of Change: Impacts of El Niño and La Niña on Climate and Society</u>, Michael Glantz, **Bulletin of the American Meteorological Society** (in press).
- Vedwan, N and K. Broad. 2003. Book review of El Niño in History: Storming through the Ages, by Caviedes, César N., Univ. of Florida Press: Gainesville, **American Anthropologist**, **105**(2):396.

- Lutz, S., K. Broad, L Talaue-Mcmanus, J. Sanchirico, R. Stoffle. 2002. Human Dimensions of Marine Reserve Policy: Applications in Bimini. **Bahamas Journal of Science**, 5(2):50-57.
- Bakun, A. and K. Broad 2002. The IRI-IPRC Pacific Climate-Fisheries Workshop. **Fisheries Oceanography 11**(3), 189-190.
- Broad, K. 2002. Book review of El Niño 1997-98: The Climate Event of the Century, Stanley Changnon (ed.), Climatic Change, 53(4): 523-527, June.
- Broad, K. 2002. (En)gendering Climate. InterCoast, 41(Winter):22-23.
- Broad, K., 2000. Practical and Conceptual Challenges to Climate Forecast Applications. In **Proceedings from the International Forum on Climate Prediction, Agriculture and Development**, Palisades, NY, April 26-28.
- Zapata Velasco, A. and K. Broad, 2000. Peru Country Report for UNEP Project: Reducing the Impact of environmental emergencies through early warning and preparedness: the case of 1997-98 El Niño, Michael Glantz (Ed.), Boulder: NCAR.
- Ropelewski, C.F., N. Graham, A. Moura, Y. Tourre, S. Zebiak, B. Blumenthal, K. Broad, L. Goddard and S. Mason, 1999. In The Great 1997/98 Warm Episode: Lessons Learned. **Proceedings of the 23rd Annual Climate Diagnostics and Prediction Workshop**, p 8.
- Broad, K., and A. Pfaff, 1997. Prediction, Profit-Motive and Policy in the Peruvian Fishery, The Columbia Earth Institute: **EARTHmatters**, pp. 11-back cover.
- Meltzoff, D. S. K., K. Broad, and D. C. M. Farias, 1997. ENSO and Chilean Fisheries: A Case Study in Social Complexity, **The ENSO Signal**, 2-4.
- Flint, E.N., F.C. Depkin, M.J. Rauzon, and K. Broad., 1996. Remote Island Refuge Complex Report Jarvis Island 19-23 March 1996, with notes from Palmyra and Kanton. Administrative Report, U.S. Fish and Wildlife Service.
- Broad, K., 1995. On the Edge of Beyond, **Back In Time for Tea and Medals: Memorial Tribute to Ian Rolland**, Edited by M. Wallace, 107-111, Hampshire: Studio 6.
- Dreher, M., and K. Broad., 1994. Drug Consumption and Distribution in a North Coast "Drug Corridor" Community. U.S. State Department International Narcotics Matters and Jamaican National Council on Drug Abuse.
- Broad, K., 1993. Nitrox: A Personal Choice. **International Association of NITROX and Technical Divers Journal**, 3-93:7-13.
- Dreher, M., K. Broad, L. Charlton, M. Miller, and M. Kenny. 1994. **Drug Consumption and Distribution in Jamaica: A National Ethnographic Study**. U.S. State Department International Narcotics Matters and Jamaican National Council on Drug Abuse.

Broad, K., and W. Stone, 1994. San Agustín Expedition Accident Analysis. **Underwater Speleology**, 22:15-25.

Funded Research Performed (as PI or Co-PI):

- NSF Coastlines and People (CoPe). Reducing Climate Risks with Equitable Nature-based Solutions: Engaging Communities on Reef-Lined Coasts. **Co-PI**, [\$20,000,000, Project PI: Maya Trotz, USF. UM PI: Landolf Rhode Barbarigos] 09/22-08/27.
- NOAA Weather Program Office. Dynamic communication of weather risk: a user-centered design approach. **Co-PI**, [\$394,602, PI S, Majumdar, Co-PI: B. Millet, A. Cairo, S. Evans, B. McNoldy, R. Morss] 08/21-07/23.
- The National Geographic Society Meridian Project. MiDAR UV Marine plastic and coral reef bleaching sensor. 06/01/2022 09/30/22, **Co-PI**, [\$25,000, PI Dr. Ved Chiriyath, Co-PIs: Allison Fundis, Sam Purkis. NGS-92858T-21]
- The National Geographic Society Meridian Project. Climate Migration at the Extremes: Linguistic and Ethnobotanical Adaptations of Kapingamarangi Islanders, Micronesia. 08/01/2022 10/30/22, **Co-PI**, [\$30,000, PI Dr. Maria Fadiman, Co-PIs:, David Harris, Howard Howartson NGS-92282E-21]
- The National Geographic Society, Expeditions Council. Submerged Sea Caves of the Southern California Continental Borderland. 12/01/2016 12/31/2018, **Co-PI**, [\$50,000, PI Dr. Robert Ballard, Co-PIs: Larry Mayer, Beth Shapiro, Nicole Raineult NGS-353T-18]
- NSF RAPID. Reformulating Networks of Security, Sustainability, and Survival: the emergence of an Atlantic storm society. **Co-PI**, [\$28,867, PI A. Moore, Co-PI S. Wise] 09/30/19-12/31/20.
- The National Geographic Society, Expeditions Council. Submerged Sea Caves of the Southern California Continental Borderland. 12/01/2016 12/31/2018, **Co-PI**, [\$50,000, PI Dr. Robert Ballard, Co-PIs: Larry Mayer, Beth Shapiro, Nicole Raineult NGS-353T-18]
- University of Miami Institute for the Advanced Study of the Americas. 01-12/18. Caves, Culture, and Sunken Ships: Underwater Archaeology of the Bahamas. [\$1500, Co-PIs Hanselmann, F., Pestle, W., Shriver-Rice, M.]
- The National Geographic Society, Expeditions Council. Exploration, Mapping, and Outreach in The Bahamas Blue Holes National Park. 12/01/2016 12/31/2016, **PI**, [\$37,610, Co-PIs Albury, N., Jaskolski, C., Fadiman, M., Kakuk, B. EC0787-16]
- The National Geographic Society, Expeditions Council. A Baseline Characterization of Biscayne National Park's Submerged Cultural Resources Utilizing Aerial Geomagnetic Survey and

- Underwater 3-D Imaging. 01/01/2011 12/31/2011, **Co-PI**, [\$38,150.00 Frederick Hanselmann (PI)]
- NSF Urban Water Innovation Network (U-WIN): Transitioning Toward Sustainable Urban Water Systems. **Co-PI**, 9/15/15-1/15/20 [\$12,000,000, PI Mazdak Arabi (PI)]
- NSF ADVANCE SEEDS Workshop (Scientists and Engineers Expanding Diversity and Success) Taking Environmental Science Beyond the Academy. **PI**, [\$2,500, Co-PIs Alguilera, S., Treuer, G., Wester, J. C.] University of Miami, Coral Gables, FL., Feb. 13, 2015.
- The National Geographic Society, Expeditions Council. Enhancing Exploration and Imagery of Cuba's Flooded Cave Systems. 2/15, **PI** (Co-PIs: Corey Jaskolski, Jill Heinerth, \$20,000).
- NSF ADVANCE SEEDS Workshop (Scientists and Engineers Expanding Diversity and Success) **PI**, [\$2,500, Co-PIs Alguilera, S., Treuer, G., Wester, J. C.] Taking Environmental Science Beyond the Academy. University of Miami, Coral Gables, FL., Feb. 13, 2015.
- NSF. Water, Sustainability and Climate Program. Robust Decision-Making For South Florida Resources By Ecosystem Service Valuation, Hydro-Economic Optimization, And Conflict Resolution Modeling. 09/01/12-08/31/16. **Co-PI/UM PI**, [\$5,000,000, Mike Sukop (PI), Jerry Ault, Dave Letson, Richard Weiskoff, Robert Meyer, et al. UM portion \$1,108,665.00]
- NSF ADVANCE SEEDS Workshop (Scientists and Engineers Expanding Diversity and Success) **PI**, [\$2,500, Co-PIs Augustin, C., Crosley, K.] Advancing careers in interdisciplinary research. University of Miami, Coral Gables, FL., Feb. 13, 2013.
- NSF. High Resolution Records of Rapid Climate change in Speleothem Records from The Bahamas. 06/01/2011-05/31/2014, **Co-PI**, [\$827,865, Peter Swart (PI), Amy Clement, Ali Pourmand]
- The National Geographic Society, Expeditions Council. Venomous Cultures A Biomedical and Anthropological Exploration of Myanmar and Vietnam. 01/01/2011 12/31/2011, **Co-PI**, [\$39,000, Zoltan Takacs (PI)]
- NSF. Center for the Study of Individual and Group Decision Making under Climate Uncertainty, Center for Research on Environmental Decisions, 07/01/2010-06/30/2015, **Co-PI**, [\$6,498,984, Dave Krantz (PI), Elke Weber, Benjamin Orlove, UM portion \$1,037,397]
- NSF. Emerging Frontiers in Research and Innovation SEED Design for Independent Net Zero Water Buildings, 08/15/2010-09/30/2014, **Co-PI**, [\$2,000,000, James Englehardt (PI), Miroslav Kubat, Elizabeth Plater-Zyberk, Kamal Premaratne]
- NOAA. SECC-RISA Science & Partnership for Adaptation and Resilience to Climate Change and Climate Variability. **Co-PI**, [\$875,000 Dave Letson (PI), Jim Jones, Jim O'brien, Gerrit Hoggenboom]
- NSF & NOAA. Collaborative Research: Understanding Dynamic Responses to Hurricane Warnings Implications for Communication and Research. 01/01/09-12/31/10, **PI** [\$399,461, Co-PIs, Robert Meyer, Shuyi Chen, Benjamin Orlove]

- The National Geographic Society, Expeditions Council. Exploring Bahamas Underground: Blue holes and biodiversity conservation. 07/01/2008 –12/31/2009, **PI** [\$130,860, Co-PIs, Nancy Albury, Tom Illiffe, Brian Kakuk, Dave Steadman, Wes Skiles, Peter Swart, Keith Tinker]
- NSF Biocomplexity in the Environment. Collaborative Research: Interactions between changing climate and technological innovations in agricultural decision-making: implications for land use and sustainability of product, 09/01/2007 08/31/2010, **Co-PI** [\$1,256,974, PI Guillermo Podesta, Co-PIs, Richard Katz, Dave Letson, Don Olson, Balaji Rajagopalan, Elke Weber]
- NSF Decision, Risk and Management Sciences Program. The Role of Experience in Climate Change Detection, Risk Perception and Behavior, 8/2006-1/2008, **Co-PI** [\$238,000, PI Anthony Leiserowitz, UM portion \$69,920]
- NOAA Office of Global Programs, Using Climate Information for Sustainable Management of Water Resources in South Florida: A Dynamic Decision Support Framework, 01/01/2006 12/31/2007, Co-PI [\$150,344, PI Sajjad Ahmad, Co-PIs Dave Letson, Guillermo Podesta]
- Tinker Foundation. Water Allocation, Efficiency and Vulnerability in N.E. Brazil: Mechanisms Based on Groups' Behaviors, Perceptions and Recommendations, 1/2006-12/08, **Co-PI** [\$150,344, PI Alex Pfaff, Co-PIs Renzo Taddei, Maria Carmen Lemos, Valerie Mueller, Miguel Fonseca, Assis de Filho, Harounan Kazianga]
- EPA Science to Achieve Results (STAR) Program. Effects of Climate Change on Ecosystem Services Provided by Coral Reefs and Tidal Marshes, 11/04-9/07, **Co-PI** [\$749,049 PI Jim Sanchirico, Co-PIs Alan Hastings, Fiorenza Micheli, Peter Mumby, Dan Brumbaugh, UM portion \$141,026]
- NSF Decision Making Under Uncertainty Program. Center for the Study of Individual and Group Decision Making Under Climate Uncertainty, 9/2004-8/2009, **Co-PI** [\$5,906,024 PI Elke Weber, Co-PIs Dave Krantz, Roberta Miller, UM portion \$720,418]
- NSF Biocomplexity in the Environment. Understanding and Modeling the Scope for Adaptive Management in Agroecosystems in the Pampas in Response to Interannual and Decadal Climate Variability and Other Risk Factors, 06/01/2004 05/31/2007, **Co-PI** [\$1,830,926 PI Guillermo Podesta, Co-PIs Elke Weber, Balaji Rajagopalan, William Easterling and Richard Katz]
- NOAA Office of Global Programs. Building Capacity to Use Climate Information and Forecasts to Enhance Decision-Making in Agriculture: An Application to the Argentine Pampas. 01/01/2004 12/31/2004, **Co-PI** [PI Guillermo Podesta, Co-PIs Dave Letson, Elke Weber]
- NOAA Office of Global Programs. Impacts of Water Resource Management Choices in Ceará, Brazil: Roles of Streamflow Forecasts, Rainfall Forecasts and Participatory Decisionmaking. 07/2004-06/2007, **PI**, [\$448,346 Co-PIs Alexander Pfaff, Upmanu Lall]

- Government of Panama. Development of an Integrated Coastal Management Plan for the Gulf of San Miguel and Adjacent Zones within the Framework of the Program of Sustainable Development for Darien Region, Panama, 4/2002-9/2003, **Co-PI** [\$251,757, PI Daniel Suman]
- NOAA Office of Global Programs. Climate Information Systems for Agriculture and Water Resource Management in the SE USA. 7/2002-6/2007, **Co-PI**, [\$1,248,449 (UM Portion), UM PI Guillermo Podesta, Co-PI Dave Letson]
- NSF Biocomplexity in the Environment. Coupled natural and human dynamics in coral reef ecosystems: the effect of marine reserve network design and implementation, 10/2001-9/2006, **Co-PI**, [\$742,106 (UM portion), UM PI Don Olson, Co-PIs Liana Talaue-McManus, John McManus, Phil Kramer]
- Columbia University. Advancing Integrated Climate Forecast Applications Research, 3/2001 6/2003, **PI**, [\$189,447]
- NOAA Office of Global Programs. Assessing Climate Applications and Implementation Projects, 7/2002-6/2003, **PI**, [\$85,823, Co-PI Shardul Agrawala]
- NSF Biocomplexity in the Environment Incubation Activity. Climate information and forecasts in agricultural production systems of the Argentine Pampas: Planning for their effective use in decision-making, 9/2001-2/2003, **Co-PI**, [\$65,000, PI Guillermo Podesta, Co-PI Dave Letson]
- USDA. Reducing uncertainty and risk in Florida agriculture using forecasts of climate variability, 2000-2002, **Co-PI**, [\$134,895, PI, Dave Letson, Co-PI, Guillermo Podesta]
- NOAA. The Consolidation Phase of the International Research Institute for Climate Prediction, 7/2001-6/2005, **Co-PI**, [\$34,608,547, PI Antonio Divino Moura, Co-PIs Mutter et al.]
- NSF Biocomplexity in the Environment Incubation Activity. Development of an integrated research plan for analyzing the viability of a marine reserve network in the Bahamas, 2000-2001, **Co-PI**, [\$100,000, PI Daniel Brumbaugh]
- NOAA Office of Global Programs, Economics & Human Dimensions Program. Effects of ENSO events on Peruvian Social Economics and Legal Systems, 1999-2001, **Co-PI**, [\$224,679, PI Sarah Meltzoff, Co-PI Daniel Suman]
- Research Institute for the Study of Man-RISM Landes Research Project Grant. Studying Indonesia forest-fire situations for identifying potential uses of seasonal-to-interannual climate forecasts, 2000, **PI**, [\$4000]
- NOAA Office of Global Programs. Studying Indonesia forest-fire situations for identifying potential uses of seasonal-to-interannual climate forecasts, 2000, **Co-PI**, [\$80,000, PI Andrew Pete Vayda]
- Republic of Peru. Mejoramiento de la Capacidad de Pronostico y Evaluacion del Fenomeno El Niño para la Prevencion y Mitigacion de Desastres en el Peru, 2000, **Co-PI**, [\$30,000, PI Steve Zebiak]

USAID Office of Foreign Disaster Aid. Capacity Building in Regional Climate Prediction and Applications for the Greater Horn of Africa, 1999-2001, **Co-PI**, [\$499,365, PI Steve Zebiak]

United Nations Environment Program (Peru country study). Reducing the impact of environmental emergencies through early warning & preparedness: the case of the 97-98 El Niño, 1999-2000, **Co-PI**, [\$4,000, PI Michael Glantz, Co-PI Antonio Zapata Velasco]

American Academy of Education: NSEP Graduate International Fellowship, 1997.

Ph.D. Dissertation & Thesis Committees:

Neeraj Vedwan, University of Georgia, Ecological Anthropology, 2001(Ph.D.) Michelle Rice, Columbia University, Anthropology, March 2002 (Ph.D.) Audrey Charlton, Columbia University, Anthropology 2005 (Ph.D.) Marie Lowe, Columbia University, Anthropology 2005 (Ph.D.) Renzo Taddei, Columbia University, Anthropology, 2006 (Ph.D.) Amy Diedrich, University of Rhode Island, Marine Affairs 2006 (Ph.D.) Amelia Moore, University of California, Berkeley, Anthropology 2010 (Ph.D.) Jessica Bolson, University of Miami, Envt. Science and Policy, 2010 (Ph.D.) Chair Sarah Wise, Rutgers University, Anthropology, 2012 (Ph.D.) Monica Arienzo, University of Miami, Marine Geology and Geophysics, 2014 (Ph.D.) Katie Crosley, University of Miami, Envt. Science and Policy, 2014 (Ph.D.) Chair Aaron Welch, University of Miami, Envt. Science and Policy, 2015 (Ph.D.) Co-Chair Julia Wester, University of Miami, Envt. Science and Policy, 2016 (Ph.D.) Chair Karlisa Callwood, University of Miami, Envt. Science and Policy, 2016 (Ph.D.) Chair Caitlin Augustin, University of Miami, Envt. Science and Policy, 2017 (Ph.D.) Co-Chair Catherine McDonald, University of Miami, Envt. Science and Policy, (2017) (Ph.D.) Chair Stacy Aguilera, University of Miami, Envt. Science and Policy, 2017 (Ph.D.) Co-Chair Andrew Carter, University of Miami, Envt. Science and Policy, 2017 (Ph.D.) Chair Annie Brett, University of Miami, Envt. Science and Policy / J.D., 2018 (Ph.D.) Chair Timothy Frawley, Stanford University, Biology, 2019 (Ph.D.) Jillian Drabik, University of Miami, Envt. Science and Policy, 2019, (Ph.D.) Shireen Rahimi, University of Miami, Envt. Science and Policy, 2020 (Ph.D.) Chair Mariam Abazeri, University of Miami, Envt. Science and Policy, (2023) (Ph.D.) Chair Jeneva Wright, University of Miami, Envt. Science and Policy, (2024) (Ph.D.) Chair Alize Carrere, University of Miami, Envt. Science and Policy, (2024) (Ph.D.) Co-Chair Edward Wintergalen, University of Miami, Envt. Science and Policy, (2024) (Ph.D.) Jeffrey Blackwaters, University of Miami, Envt. Science and Policy (2024) (Ph.D.) Vanessa Forbes-Pateman, University of Miami, Envt. Science and Policy, (in progress) (Ph.D.) Co-Chair

Gabriella Berman, University of Miami, Envt. Science and Policy / J.D., (in progress) (Ph.D.) Co-Chair

Adam Radpour, University of Miami, Envt. Science and Policy, (in progress) (Ph.D.) Co-Chair Alexander Carbaugh-Rutland, University of Miami, Envt. Science and Policy, (in progress) (Ph.D.)

Co-Chair

Jalyse Cuff, University of Miami, Envt. Science and Policy (in progress) (Ph.D.) Ayushi Jain, University of Miami, Envt. Science and Policy (in progress) (Ph.D.)

Ethan Prall, University of Miami, Envt. Science and Policy (in progress) (Ph.D.)

Carmen Chavez, University of Miami, Envt. Science and Policy, (in progress) (Ph.D.)

Miah Arial Jones, University of Miami, Climate and Society (in progress) (MS)

Jeremy Simms, UM, Exploration Science (MPS), (in progress) Chair

Olivia Flynn, UM, School of Communication, (MFA), (in progress)

Reese Yount, UM, Exploration Science (MPS), 2024, Chair

Ben Giraldo, UM Underwater Archaeology, (2024) (MPS) Chair

Theresia Phoa, UM, Climate and Society (2023) (MPS)

Stephanie Wright, UM Exploration Science, (MPS), (2022) Chair

Daniel Kleinman, UM, Exploration Science, (MPS) 2021, Chair

Rachael Rhodes, UM, Exploration Science, (MPS) 2021

Morgan Brooks, UM, Environment, Culture, and Media, (MPS -ECM) 2020

Rumya Sundaram, University of Miami, Envt. Science and Policy, 2021 (M.A.) Co-Chair

Evan Karge, UM-RSMAS, Marine Ecosystems and Society, (MPS) 2019

Jinguuan Lou, UM-RSMAS, Marine Ecosystems and Society, (MPS) 2018

Amanda Stolz, UM-RSMAS, Marine Ecosystems and Society, 2018 (M.S.)

Alexandra Puritz, UM-RSMAS, Marine Ecosystem and Society, 2017 (M.S.)

Estrella Malca, UM-RSMAS, Marine Affairs (2012) (M.S.) Co-chair

Nikita Shiel-Rolle, UM-RSMAS, Marine Affairs, (2010) (B.S.)

Stephanie Lavey, UM, Ecosystem Science and Policy, 2010 (B.S.)

Joseph Stieglitz, UM-RSMAS, Marine Affairs, 2010 (M.S.)

Karlissa Callwood, UM-RSMAS, Marine Affairs, (2010) (M.S.), Chair

Megan Porter, UM, Marine Affairs, 2010 (M.S.)

Aaron Welch, UM-RSMAS, Marine Affairs, (2010) (M.S.)

Jason Seuc, UM-RSMAS, Marine Affairs, 2008 (M.A.)

Jennifer Grimm, UM-RSMAS, Marine Affairs, 2008 (M.A.) Chair

Bill Foresee, UM-RSMAS, Marine Affairs, 2008 (M.S.)

Matt Kopkla, UM, Geography, 2007 (M.S.)

Angie Pendergrass, UM, Meteorology/Math, 2006 (Honors B.S.)

Marissa Steketee, UM-RSMASMarine Affairs, 2006 (M.A.) Chair

Sarah Heberling, UM-RSMAS, Marine Affairs, 2006 (M.A.)

Evan Wade-Fox, Stanford University, Earth Systems, 2005 (M.S.)

Jessica Weinkle, Columbia University, Climate and Society, 2005 (M.A.)

Kristen McLendon, UM-RSMAS, Marine Affairs, 2005 (M.A.)

Rebecca Greenberg, UM-RSMAS, Marine Affairs, 2004 (M.A.) Chair

Sarah Wise, Bard College, Environmental Studies, May 2004 (M.S.)

Saundra McLaughlin, UM-RSMAS, Marine Affairs, 2004 (M.A.)

Amit Hazra, UM-RSMAS, Marine Affairs, January 2003 (M.S.)

Ana Spalding, UM-RSMAS, Marine Affairs, May 2003 (M.A.)

Katrell King, UM, Ecosystem Science and Policy, (in progress), (Honors B.S.)

Michelle Liang, UM, Architecture, 2006 (Honors B.A.)

Danielle Goldwert, UM, Psychology, 2021 (Honors B.S.)

Alicia Cohn, Barnard College, Envt. Science, 1999 (Honors B.S.)

Post-doctoral Supervision:

Neeraj Vedwan, 2001-2003

Norman Breuer, 2003-2005 Valerie Mueller, 2005- 2007 Miguel Fonseca, 2006-2007 Maria Alejandra Velez, 2007-2008 Nada Petrovic, 2012-2014

Professional & Honorary Organizations:

2008-present	The Explorers Club
2007-2015	Sigma Xi
1993-present	American Anthropological Association, Society for Applied Anthropology
1988-2001	American Academy of Underwater Sciences
1990-1995	Undersea and Hyperbaric Medical Society
1993-2001	United States Deep Caving Team

Teaching Specialization:

Human Ecology, Development Anthropology, Natural Resource Management, Climate Affairs RSM 571/520: Climate and Society: a multidisciplinary approach (w/ Prof. Amy Clement)

RSM 572: Carbon and Climate (w/ Prof. Will Drennan and others)

ECS 501: Interdisciplinary Theories of Environmental Science and Policy

ESC 302/GEG545: Perspectives on Environmental Decisions (w/ Prof. Rinku Roy Chowdhury)

ECS 403: Capstone Course (Climate Change Politics and Policy)

MSC 371: Independent Study

RSM 600+: From Gold to Glory: Perspectives on Exploration Science

Exploration Related Fieldwork (abbreviated list – does NOT include film work):

02/2023 Expedition Member/Lead Diver. Frasassi Alien Oceans 2023. Grotte di Frasassi. Genga, Italy National Geographic Magazine/Penn State University (PI: Jennifer Macalady).

05-06/2019 Expedition Member/Aerial Mapping & Survey: Life at the Extremes. Mt. Everest, Nepal. National Geographic Society. (PI: Paul Mayewski).

01/2019 Expedition Member/Co-PI: 3D Scanning and Ground Penetrating Radar of Rising Star Cave System. South Africa. National Geographic Society and National Geographic Partners. (PI: Lee Berger, Co-PIs, Corey Jaskolski, Marina Elliot).

08/2018 Expedition Member/Co-PI: 3D Scanning and Ground Penetrating Radar of Chichen Iza, Mexico. National Geographic Society and National Geographic Partners. (PI: Guillermo de Anda, Co-PIs, Corey Jaskolski).

06-07/2018 Expedition Member/Co-PI: Terrestrial and Aerial 3D Scanning and Photogrammetry of Petra, Jordan. Jordanian Government and Virtual Wonders, Inc.. (Co-PI: Corey Jaskolski, Mark Bauman).

- 07/2017 08/2019 <u>Expedition Member/Dive Team Lead</u>: Walking with the Ancients: The Great Migration of Humans Around the World During the Last Ice Maximum. Channel Islands, California, USA. NOAA, Ocean Exploration Trust, Office of Naval Research & National Geographic Society. (PI: Robert Ballard, Nicole Raineault, Larry Mayer)
- 07/2017 <u>Expedition Co-pilot & Diver</u>: A Baseline Characterization of Biscayne National Park's Submerged Cultural Resources Utilizing Aerial Geomagnetic Survey and Underwater 3-D Imaging. National Geographic Society (PI: Fritz Hanselman, Co-PIs: Roni Avissar, Corey Jaskolski, Bert Ho).
- 12/2016 <u>Expedition Leader</u>: Exploration, Mapping, and Outreach in the Bahamas Blue Holes National Park. National Geographic Society and The National Museum of the Bahamas. (Co-PI's: Nancy Albury, Jill Heinerth, Corey Jaskolski, Brian Kakuk).
- 02/2015 <u>Expedition Leader</u>: Enhancing Exploration and Imagery of Cuba's Flooded Cave Systems. National Geographic Society. (Co-PI's: Corey Jaskolski, Jill Heinerth).
- 02/2015 <u>Expedition Member</u>: Prehistoric extinct mammal and human remains from a subaquatic cave in Cuba: a pilot project linking archaeology, paleontology, and the ancient environment for National Geographic Society. (PI: Mathew Peros, Bishop's University).
- 7-8/2011 <u>Expedition Co-Leader/Co-PI</u>: study of toxinology and human interaction with venomous land and sea snakes in Vietnam for National Geographic Society. (PI Zoltan Takacs, University of Chicago, Co-PI Amelia Moore, University of Rhode Island).
- 1/2003-Present <u>Expedition Leader/Member</u>: multiple underwater cave exploration projects (mapping, biological, geological and archaeological) in Bahamas in collaboration with Government of Bahamas and National Geographic Society. See cover story of August 2010 National Geographic Magazine for details.
- 9/2009<u>Expedition Co-Leader/Diver</u>: Mapping, microbial and water sampling from deep sump in Frasassi Cave, Coldigioco, Italy. Funded by NASA, NSF, National Geographic Society. PI: Jenn Macalady (Penn State Univ.).
- 1-6/97 <u>Consultant</u>: National Center for Atmospheric Research--Environmental and Social Impacts Group. Comparative analysis of climate forecast use in Peru, Kenya, and Costa Rica. PI: Dr. Michael Glantz
- 6-10/97 <u>Consultant</u>: National Center for Atmospheric Research/NASA. Assessment of the Use of Remote Sensing and other Information Related to ENSO. PI: Dr. Michael Glantz.

- 8-10/1992, 6-9/94, 6/95, 3-4/96 Expedition Leader: Lamont-Doherty Earth Observatory of Columbia University, Division of Oceans, Climate and the Environment. Expedition coordinator for ENSO Bathymetric Survey, U/W Core Sampling, Global Ocean Chemistry Sampling and CTD deployment in Kapingamarangi, Nukuoro, Sapwuahfik, Pohnpei (FSM); Republic of Kiribati; Republic of Seychelles; Barbados, West Indies; Jarvis Island; and Palmyra Island for National Science Foundation, National Oceanic and Atmospheric Administration Consortium on the Ocean's Role in Climate (Paleoclimates Program). PI: Dr. Richard Fairbanks.
- 6/95-7/96 <u>Preceptor</u>: Columbia University, Teachers College. "Cultural and Social Bases for Education" (TF4010Y) & "Culture and Society in the Caribbean" (TF5012) Graduate Seminar for Dr. Lambros Comitas.
- 2-5/94 <u>Expedition Member/Diver</u>: "Huautla Project San Agustín Expedition" National Geographic Society/ U.S. Deep Caving Team. Oaxaca, Mexico, led by Dr. Bill Stone.
- 12/93 <u>Marine Coordinator</u>: Dead Man's Tale "Shark Attack" documentary episode for Lifetime Productions, Cat Cay, Bahamas.
- 6-8/93 <u>Ethnographer</u>: "National Survey of Drug Consumption and Distribution in Jamaica" -U.S. State Department/International Narcotics Matters, for Dr. Melanie Dreher, University of Massachusetts & Dr. Samuel Wray, University of West Indies, Jamaica.

 5/93 <u>Expedition Member/Diver</u>: "Cueva Infiernillo, Main Sump Exploration Project"
 U.S. Deep Caving Team, Tamaulipas, Mexico, led by Dr. Bill Stone.
- 4/93 <u>Test Diver:</u> U.S. Deep Caving Team, Cis-Lunar MK IV Rebreather, Jackson Blue Springs, Forty Fathom Grotto, Florida, led by Dr. Bill Stone.
- 1/93 <u>Underwater Camera</u>: "The New Explorers -- Dive Into Darkness" documentary for PBS, Grand Bahama Island, Bahamas, for Kurtis Productions.
- 10/92 <u>Producer</u>: "NOAA Variable Volume Drysuit Safety Video" for NOAA Diving Center, Seattle, WA.
- 10/92 <u>Research Diver</u>--"Nudibranch Geomagnetic Orientation Study" for Friday Harbor Laboratories, Vancouver Island, British Columbia, Dr. Dennis Willows, University of Washington.
- 8/92 <u>Photo Assistant/Underwater Technician</u>--"America Water Story" for National Geographic Magazine with David Doubilet and Wes Skiles.
- 4/92 <u>Underwater Camera</u>--"Nature and Danger" documentary, WMFE Television, Orlando, for PBS.
- 3/92 <u>Dive Coordinator</u>--"Beyond 2000" documentary segment on Cis-Lunar MK II Rebreather for Discovery Network.
- 1/92 <u>Underwater Video</u>--Little Salt Spring Paleo-Indian Underwater Archaeological Project, for Dr. John Gifford, University of Miami.

- 1/92 <u>Underwater Camera/Photographer</u>--Gilligan vs. The Citadel, cave diving accident documentation.
- 11/91 <u>Diving Supervisor/Environmental Technician</u>--Ichetucknee Springs Hydrogeological Study and Exploration, Ichetucknee Springs State Wildlife Park, Karst Environmental Services, Inc. for State of Florida Department of Natural Resources (DNR).
- 11/91 <u>Support Diver</u>--National Speleological Society Woodville Karst Plain Exploration Project, Wakulla Springs, Florida.
- 10/91 <u>Divemaster</u>--NOAA/National Undersea Research Program Surface-Interval Oxygen Validation Study, Wakulla Springs, Florida.
- 9/91 <u>Research Diver/Underwater Camera</u>--Homosassa Spring Basin Hydrogeological Study and Sediment Removal Project, Homosassa Springs State Wildlife Park, Karst Environmental Services, Inc. for DNR.
- 6-7/91 <u>Underwater Camera & Lighting/Diving Supervisor</u>--"Florida--Window to a Hidden World" documentary, Beyond International Group for Discovery Network.

List of film, stage, and conference participation are available upon request.