

Kenneth Broad
Curriculum Vitae (UM format)

1. Date: August 2009

PERSONAL

2. Name: **Kenneth Broad**
3. Home Phone: (305) 285 - 0793
4. Office Phone: (305) 421 - 4851
5. Home Address: 1766 Opechee Dr., Miami, Florida 33133
6. Current Academic Rank: Associate Professor (tenured)
7. Primary Department: Marine Affairs and Policy
8. Secondary or Joint Appointments:
 Director, Abess Center for Ecosystem Science and Policy, University of Miami
 Co-director, Center for Research on Environmental Decisions, Columbia University
 Adjunct Research Scientist, Lamont Doherty Earth Observatory of Columbia University
9. Citizenship: USA
10. Visa Type: n/a

HIGHER EDUCATION

11. Institutional:

Columbia University, New York	Ph.D. 1999	(anthropology)
University of Miami, Miami	M.A. 1992	(marine affairs)
University of California, Santa Barbara	B.A. 1989	(literature)

12. Non-institutional: None

13. Certification, licensure:

United States Coast Guard 25-ton Licensed Captain
Certified--State of Florida Emergency Medical Technician
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 (Megalodon)
Certified--International Association of Nitrox Divers (IAND) TRIMIX Diver
Instructor--IAND Technical Nitrox Instructor
Instructor--American Nitrox Divers
Instructor--Professional Association of Dive Instructors

EXPERIENCE

14. Academic:

University of Miami	Associate Professor w/tenure	6/2008-present
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

15. Non-Academic (limited to environmental/ethnographic related work – does NOT include film work):

1/2003-present Expedition Leader/Member: multiple underwater cave exploration projects (mapping, biological, geological and archaeological) in Bahamas in collaboration with Government of Bahamas and National Geographic Society.

1-6/97 Consultant: 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 Consultant: 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, Sapwuhfik, 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 Preceptor: 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 Expedition Member/Diver: "Huatla Project - San Agustín Expedition" National Geographic Society/ U.S. Deep Caving Team. Oaxaca, Mexico, led by Dr. Bill Stone.

12/93 Marine Coordinator: Dead Man's Tale "Shark Attack" documentary episode for Lifetime Productions, Cat Cay, Bahamas.

6-8/93 Ethnographer: "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 Expedition Member/Diver: "Cueva Infiernillo, Main Sump Exploration Project" U.S. Deep Caving Team, Tamaulipas, Mexico, led by Dr. Bill Stone.

4/93 Test Diver: U.S. Deep Caving Team, Cis-Lunar MK IV Rebreather, Jackson Blue Springs, Forty Fathom Grotto, Florida, led by Dr. Bill Stone.

1/93 Underwater Camera: "The New Explorers -- Dive Into Darkness" documentary for PBS, Grand Bahama Island, Bahamas, for Kurtis Productions.

- 10/92 Producer: "NOAA Variable Volume Drysuit Safety Video" for NOAA Diving Center, Seattle, WA.
- 10/92 Research Diver--"Nudibranch Geomagnetic Orientation Study" for Friday Harbor Laboratories, Vancouver Island, British Columbia, Dr. Dennis Willows, University of Washington.
- 8/92 Photo Assistant/Underwater Technician--"America Water Story" for National Geographic Magazine with David Doubilet and Wes Skiles.
- 4/92 Underwater Camera--"Nature and Danger" documentary, WMFE Television, Orlando, for PBS.
- 3/92 Dive Coordinator--"Beyond 2000" documentary segment on Cis-Lunar MK II Rebreather for Discovery Network.
- 1/92 Underwater Video--Little Salt Spring Paleo-Indian Underwater Archaeological Project, for Dr. John Gifford, University of Miami.
- 1/92 Underwater Camera/Photographer--Gilligan vs. The Citadel, cave diving accident documentation.
- 11/91 Diving Supervisor/Environmental Technician--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 Support Diver--National Speleological Society Woodville Karst Plain Exploration Project, Wakulla Springs, Florida.
- 10/91 Divemaster--NOAA/National Undersea Research Program Surface-Interval Oxygen Validation Study, Wakulla Springs, Florida.
- 9/91 Research Diver/Underwater Camera--Homosassa Spring Basin Hydrogeological Study and Sediment Removal Project, Homosassa Springs State Wildlife Park, Karst Environmental Services, Inc. for DNR.
- 6-7/91 Underwater Camera & Lighting/Diving Supervisor--"Florida--Window to a Hidden World" documentary, Beyond International Group for Discovery Network.

16. Military: None

PUBLICATIONS

17. Books & monographs published:

Bakun, A. and K. Broad (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, 70pp.

18. Juried or refereed journal articles and book chapters

Reed MS, Bonn, A, Broad K, Burgess P, Burt TB, Ravera F, Redpath S, Fazey IR, Hubacek K, Nainggolan D, Quinn CH, Roberts P, Stringer LC, Thorpe S, Walton DD. Participatory scenario development for environmental management: a methodological framework. *Journal of Environmental Management*. Vol. pp (in press).

Broad, K. and J. Sanchirico. Local Perspectives on Marine Reserve Creation in the Bahamas. 2008. *Ocean and Coastal Management*. (in press doi:10.1016/j.ocecoaman.2008.07.006)

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, K. Broad, 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, K. Broad, 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, K Broad, PE Hildebrandt. AgClimate: A case study in participatory decision support system development. 2008. *Climatic Change*. 87: 385-403.

Mumby PJ, K Broad, 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 Broad, K. 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, K Broad, 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.

- Broad, K., 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., K. Broad, 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, K. Broad, 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 K. Broad. 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, K. Broad 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., K. Broad, and T. Finan. 2004. Science, Vulnerability and the search for equity: El Nino 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 K. Broad. 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 K. Broad. 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 K. Broad. 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., K. Broad, 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. 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 K. Broad, 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., K. Broad, 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, K. Broad, and M. D. Moore, 1997. Evaluating climate indices and their geochemical proxies measured in corals. *Coral Reefs*, **16**:S93-S100.
- Meltzoff, S.K., and K. Broad, 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.

19. Other works & publications:

- Broad, K. (in press). Lose Your Mind, Lose Your Body. In *Complete Survivor Manual*. Edited by Michael S. Sweeney. Washington, D.C.: National Geographic Books.
- 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, K.T., 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. *BBP In Brief* Newsletter, Nov. 2005.
- Broad, K. 2005. Book review of The International Handbook of Social Impact Assessment: Conceptual and Methodological Advances. H.A. Becker and F. Vanclay (eds.). Edward Elgar: Cheltenham, 2005, *Agricultural Systems*, Vol. 83, Issue 1, pp. 104-105.
- 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 Currents of Change: Impacts of El Niño and La Niña on Climate and Society, 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 Caviades, 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.

20. Other works under review:

Micheli, F., P.J. Mumby, D.R. Brumbaugh, K. Broad, C. P. Dahlgren, Harborne, A.R., K. E. Holmes, C.V. Kappel, S. Litvin, J. N. Sanchirico, Low functional redundancy and positive relationship between diversity and function in Caribbean cora reef seascapes. *Conservation Biology*. Vol. pp (under review)

Broad, K., N. Peterson, B. Orlove, C. Roncoli, R. Taddei, M.A. Velez. *Participatory processes and climate forecast use: sociocultural context, discussion, and consensus*. *Climate and Development*. Vol. pp (under review)

Peterson, N. and K. Broad. Participatory Approaches to Sustainable Development. In: **Is Sustainable Development Feasible?** Edited by J. Sachs and P. Schlosser. New York: Columbia University Press (under review).

PROFESSIONAL

21. Funded Research Performed (as PI or Co-PI)

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** [\$55,860, 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 Nino, 1999-2000, **Co-PI**, [\$4,000, PI Michael Glantz, Co-PI Antonio Zapata Velasco]

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

22. Editorial Responsibilities:

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

23. Professional & Honorary Organizations:

2008-present The Explorers Club, Fellow National

2007-present Sigma Xi

1993-present American Anthropological Association, Society for Applied Anthropology
1988-2001 American Academy of Underwater Sciences
1991-2001 Do All Society-Explorer Member
1990-1995 Undersea and Hyperbaric Medical Society
1993-2001 United States Deep Caving Team

24. Honors & Awards:

The Explorers Club, Fellow National, 2008-present
Florida Trend Magazine, Trendsetters: Today and Beyond Award, 2008
National Geographic Society, Emerging Explorer Award, 2006
(<http://www.nationalgeographic.com/emerging/kbroad.html>)
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.

25. Post-Doctoral Fellowships:

Lamont-Doherty Earth Observatory of Columbia University, November 1999 - February 2000.

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

Editorial Responsibilities: Associate Editor & Editorial Board member for *Weather, Climate and Society* (journal of the American Meteorological Association), 2008.

Journal & Proposal Reviews: *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, Science, Technology and Human Values, EPA, NSF, NOAA, NASA.*

Professional Committee Activities (selected list):

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-present.
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.

TEACHING

27. Teaching Awards Received: None

28. 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)
 ESC 302/GEG545: Perspectives on Environmental Decisions (w/ Prof. Rinku Roy Chowdhury)
 MSC 371: Independent Study

29. Dissertation & Thesis Committees:

Neeraj Vedwan, University of Georgia, Ecological Anthropology, August 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.)
 Jessica Bolson, University of Miami, Interdepartmental Studies (in progress) (Ph.D.) Chair
 Amelia Moore, University of California, Berkeley, Anthropology (in progress) (Ph.D.)
 Sarah Wise, Rutgers University, Anthropology (in progress) (Ph.D.)
 Federico Rotman, UM-RSMAS, Marine Affairs, December 2002 (M.S.)
 Amit Hazra, UM-RSMAS, Marine Affairs, January 2003 (M.S.)
 Ana Spalding, UM-RSMAS, Marine Affairs, May 2003 (M.A.)
 Rebecca Greenberg, UM-RSMAS, Marine Affairs, 2004 (M.A.) Chair
 Sandra McLaughlin, UM-RSMAS, Marine Affairs, 2004 (M.A.)
 Sarah Wise, Bard College, Environmental Studies, May 2004 (M.S.)
 Kristen McLendon, UM-RSMAS, Marine Affairs, 2005 (M.A.)
 Evan Wade-Fox, Stanford University, Earth Systems, 2005 (M.S.)
 Jessica Weinkle, Columbia University, Climate and Society, 2005 (M.A.)
 Marissa Stekete, Marine Affairs, 2006 (M.A.) Chair
 Sarah Heberling, UM-RSMAS, Marine Affairs, 2006 (M.A.)
 Matt Kopkla, UM, Geography, 2007 (M.S.)
 Jason Seuc, UM-RSMAS, Marine Affairs, 2008 (M.A.)
 Bill Foresee, UM-RSMAS, Marine Affairs, 2008 (M.S.)

Jennifer Grimm, UM-RSMAS, Marine Affairs, 2008 (M.A.) Chair
Aaron Welch, UM-RSMAS, Marine Affairs, (in progress) (M.S.)
Joseph Stieglitz, UM-RSMAS, Marine Affairs, (in progress) (M.S.)
Nikita Shiel-Rolle, UM, Marine Affairs, (in progress) (M.S.)
Alicia Cohn, Barnard College, Environmental Science, 1999 (Honors B.S.)
Michelle Liang, UM, Architecture, 2006 (Honors B.A.)
Angie Pendergrass, UM, Meteorology/Math, 2006 (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

SERVICE

30. University Committee & Administrative Responsibilities:

RSMAS Ship Operations Committee, 2008-present
RSMAS Advancement Committee, 2009-present
RSMAS Dean's Search Committee, 2008-2009
(Chair) RSMAS Ad-hoc Strategic Planning Group, 2005-2007
UM "Communication Across the Curriculum" Quality Enhancement Program Implementation Committee, 2007
UM Abbes Center for Ecosystem Science and Policy Advisory Committee, 2003-present
UM Center for Latin American Studies Executive Board, 2003-present
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