

**DR. RAPHAEL DAVID SAGARIN**

Program Director for Oceans, Biosphere 2

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**EDUCATION**

- 9/95-1/01 **University of California, Santa Barbara.** Ph.D. Ecology, Evolution, and Marine Biology. “Evaluating the effects of climate change on biological communities: Integrating historical science with biogeography and physiology” Advisor: Dr. Steven Gaines
- 4/96-6/96 **University of Washington, Friday Harbor Laboratories.** Comparative Invertebrate Embryology. Dr. Richard Strathmann.
- 9/90-6/94 **Stanford University** B.S. Earth Systems Biology. Advisor: Dr. Joan Roughgarden.
- 4/93-6/93 **Hopkins Marine Station** Stanford University, Pacific Grove, CA. Original research on intertidal marine invertebrate populations in Monterey Bay. Advisor: Charles Baxter.

**PREVIOUS POSITIONS**

- 9/06-8/09 **Duke University** Nicholas Institute for Environmental Policy Solutions. Associate Director.
- 9/06-8/09 **Duke University** Nicholas School of the Environment. Assistant Research Professor.
- 1/05-9/06 **University of California Los Angeles** Institute of the Environment. Assistant Research Biologist II.
- 9/03-12/04 **University of California Los Angeles** Department of Environmental Health Sciences. Post-doctoral researcher with Professor Richard Ambrose
- 9/02-8/03 **Geological Society of America/U.S. Geological Survey** Congressional Science Fellow, office of Congresswoman Hilda L. Solis. Washington, D.C.
- 2/02-12/04 **University of California Santa Barbara** Assistant Research Biologist I.
- 2/01 – 2/02 **Stanford University** Post-doctoral researcher with Professor Fiorenza Micheli

**FELLOWSHIPS**

- John Simon Guggenheim Memorial Foundation Fellow (Class of 2011)
- AAAS Science and Technology Policy Fellow (Class of 2002-3)
- Robert and Patricia Switzer Foundation Environmental Fellow (Class of 2000)

**PUBLICATIONS**

**Books**

- 2012 Sagarin, R. Learning from the Octopus: How Secrets from Nature That Can Help Us Fight Terrorist Attacks, Natural Disasters and Disease. **Basic Books**
- 2012 Sagarin, R and A. Pauchard. Observation and Ecology: Broadening the Scope of Science to Understand a Complex World. **Island Press**
- 2008 Sagarin, R. and T. Taylor, editors. Natural Security: A Darwinian Approach to a Dangerous World. **University of California Press.**

**Journal Articles & Book Chapters**

- Submitted* Sagarin, R., Adams, J., Blanchette, C., Brusca, R., Chorover, J., Cole, J., Lubchenco, J., Micheli, F., Munguia-Vega, A., Rochman, C., Troch, P., van Haren, J. Between Control and Complexity: Opportunities and Challenges for Marine Mesocosms. **Frontiers in Ecology and the Environment**
- In press* Sagarin, R. Learning from the Octopus: What Nature Can Tell Us About Adapting to a Changing World. *in* Chester Crocker, Fen Osler Hampson, Pamela Aall, editors. Conflict Management in a World Adrift. **United States Institute of Peace.**

**Journal Articles & Book Chapters (continued)**

- In press* Sagarin, R. The Ecology and Evolution of Personal Security: Adaptive Interdependence of the Individual and the Collective. *In* Patrick Carroll, Robert Arkin, and Aaron Wichman, editors. *The Handbook of Personal Security*. **Taylor and Francis**.
- In press* Sagarin, R. Those who remain: tales from the margins. Book review of: *The Edge of Extinction* by Jules Pretty. **Ecology**
- In press* Sagarin, R. Book Review of: *Animal Weapons: The Evolution of Battle* by Douglas J Emlen. **Reports of the National Center for Science Education**
- 2014 Sagarin, R. Marine Historical Ecology and the Renewed Power of Observation. *in* John N. Kittinger, Loren McClenachan, Keryn B. Gedan, and Louise K. Blight, editors. *Marine Historical Ecology: Applying the Past to Manage for the Future*. **University of California Press**.
- 2014 Sagarin, R. Ed Ricketts. **Oxford Bibliographies in Ecology**. online.
- 2013 Klinger, D., Turnipseed, M., Anderson, J., Asche, F., Crowder, L., Guttormsen, A., Halpern, B., O'Connor, M., Sagarin, R., Selkoe, K., Shester, G., Smith, M., Tyedmers, P. Moving beyond the fished or farmed dichotomy. **Marine Policy**. 38: 369–374.
- 2013 Sagarin, R. A static manual for a dynamic planet. Book review of *Earth: A Tenant's Manual* by Frank Rhodes. **Ecology** 94(3):769-770.
- 2012 Sagarin, R. and Turnipseed, M. The Public Trust Doctrine: Where Ecology Meets Natural Resources. **Annual Reviews of Environment and Resources**. 37:473-496
- 2012 Sagarin, R. and Taylor, T. Natural Security: How Biological Systems Use Information to Adapt in an Unpredictable World. **Security Informatics**. 1(1):14 pp.
- 2010 Sagarin, R. Natural security for a variable and risk-filled world. **Homeland Security Affairs** 6(3): <http://www.hsaj.org/?article=6.3.4>.
- 2010 Turnipseed, M., R. Sagarin, P. Barnes, M. C. Blumm, P. Parenteau, and P. H. Sand. Reinvigorating the Public Trust Doctrine: Expert Opinion on the Potential of a Public Trust Mandate in U.S. and International Environmental Law. **Environment** 52(5): 6-14.
- 2010 Sagarin, R., C. Alcorta, S. Atran, D. Blumstein, G. Dietl, M. Hochberg, D. Johnson, S. Levin, E. Madin, J. Madin, E. Prescott, R. Sosis, T. Taylor, J. Tooby, G. Vermeij. Decentralize, adapt, and cooperate. **Nature**. 465: 292-293.
- 2010 Sagarin, R. Book review of *Global Environmental Change and Human Security*. **The Quarterly Review of Biology** 85(3): 358-359.
- 2010 Sagarin, R. and Pauchard, A. Observational approaches in ecology open new ground in a changing world. **Frontiers in Ecology and the Environment** 8: 379–386.
- 2010 Dorsey, J., P. M. Carter, S. Bergquist, R. Sagarin. Reduction of fecal indicator bacteria (FIB) in the Ballona Wetlands saltwater marsh (Los Angeles County, California, USA) with implications for restoration actions. **Water Research**. 44(15): 4630-42.

**Journal Articles & Book Chapters (continued)**

- 2010 Goyert, W., Sagarin, R., Annala, J. The promise and pitfalls of Marine Stewardship Council certification: Maine lobster as a case study. **Marine Policy**. 34: 1103-1109.
- 2010 Smith, M., C. Roheim, L. Crowder, B. Halpern, M. Turnipseed, J. Anderson, F. Asche, L. Bourillon, A. Guttormsen, A. Khan, L. Liguori, A. McNevin, M. O'Connor, D. Squires, P. Tyedmers, C. Brownstein, K. Carden, D. Klinger, R. Sagarin, K. Selkoe. Sustainability and Global Seafood. **Science** 327: 784-786
- 2009 Turnipseed, M., Crowder, L., Sagarin, R., Roady, S. Public Trust Doctrine: Response. **Science** 326: 45-46.
- 2009 Turnipseed, M., Roady, S., Sagarin, R., Crowder, L. Legal Bedrock for Rebuilding America's Ocean Ecosystems. **Science** 324:183-184
- 2009 Turnipseed, M., Roady, S., Sagarin, R., Crowder, L. The Silver Anniversary of the United States' Exclusive Economic Zone: Twenty-Five Years of Ocean Use and Abuse, and the Possibility of a Blue Water Public Trust Doctrine. **Ecology Law Quarterly** 36(1):1-70.
- 2009 Sagarin R, Carlsson J, Duval M, Freshwater W, Godfrey MH, et al. Bringing molecular tools into environmental resource management: Untangling the molecules to policy pathway. **PLoS Biology** 7(3): e1000069.
- 2009 Sagarin, R. and Crowder, R. Breaking through the crisis in marine conservation and management: insights from the philosophies of Ed Ricketts. **Conservation Biology** 23(1): 24-30
- 2009 Gaines, S. D., S. E. Lester, G. L. Eckert, B. P. Kinlan, R. D. Sagarin and B. Gaylord. Dispersal and geographic ranges in the sea. In: Witman, J. and K. Roy (eds.) *Marine Macroecology*. **U. Chicago Press**
- 2008 Sagarin, R. Return to natural history. Book review of: *Return to Warden's Grove: Science, Desire and the Lives of Sparrows*, by Christopher Norment. **Science**. 320:180.
- 2008 Sagarin, R. The origins of natural security. In Sagarin, R. and T. Taylor, editors. *Natural Security: A Darwinian Approach to a Dangerous World*. **University of California Press**.
- 2008 Sagarin, R. A holistic view of natural security. In Sagarin, R. and T. Taylor, editors. *Natural Security: A Darwinian Approach to a Dangerous World*. **University of California Press**.
- 2008 Sagarin, R, W. Gilly, C. Baxter, N. Burnett, J. Christensen. Remembering the Gulf: Changes to the marine ecology of the Sea of Cortez since the Steinbeck and Ricketts expedition of 1940 **Frontiers in Ecology and the Environment** 6(7): 372-379
- 2007 Sagarin, R. Climate change. In *Encyclopedia of Tidepools*. Edited by Steven Gaines and Mark Denny. **University of California Press**
- 2007 Raimondi, P., R. Sagarin, R. Ambrose, M. George, S. Lee, D. Lohse, C. M. Miner, S. Murray, C. Roe. Consistent frequency of color morphs in the sea star *Pisaster ochraceus*. **Pacific Science** 61(2):201-210
- 2007 Sagarin, R., R. Ambrose, B. Becker, J. Engle, J. Kido, S. Lee, C. M. Miner, S. Murray, P. Raimondi, D. Richards, C. Roe. Ecological impacts on the limpet *Lottia gigantea* populations: human pressure over a broad scale on island and mainland intertidal zones. **Marine Biology** 150(3):399-413.

**Journal Articles & Book Chapters (continued)**

- 2006 Sagarin, R., S. Gaines. Recent studies improve understanding of population dynamics across species ranges. **Oikos**. 115(2):386-388.
- 2006 Sagarin, R., S. Gaines, B. Gaylord. Moving beyond assumptions to understand abundance distributions across the ranges of species. **Trends in Ecology and Evolution** 21(9): 524-530
- 2006 Sagarin, R., G. Somero. Complex patterns of heat-shock protein 70 expression across the southern biogeographic ranges of the intertidal mussel *Mytilus californianus* and snail *Nucella ostrina* **Journal of Biogeography** 33(4):622-630
- 2005 Parmesan, C, S Gaines, L Gonzalez, DM Kaufman, J Kingsolver, AT Peterson & R Sagarin. Empirical perspectives on species' borders: from traditional biogeography to global change. **Oikos** 108: 58-75.
- 2003 Sagarin, R. Adapt or die: what Charles Darwin can teach Tom Ridge about homeland security. **Foreign Policy**. September/October, 2003, pp. 68-9
- 2002 Sagarin, R., and S. Gaines. Geographical abundance distributions of coastal invertebrates: using 1-dimensional ranges to test biogeographic hypotheses. **Journal of Biogeography**. 29 (8): 985-998.
- 2002 Sagarin R. and S. Gaines. The “abundant centre” distribution: to what extent is it a biogeographic rule? **Ecology Letters**. 5: 137-147
- 2002 Sagarin, R. A checklist for historical studies of species’ responses to climate change. in *Managing For Healthy Ecosystems*. Edited by Rapport DJ, WL Lasley, DE Rolston, NO Nielsen, CO Qualset, and AB Damania. **Lewis Publishers**, Boca Raton, USA.
- 2001 Sagarin, R. Historical studies of species’ responses to climate change: promise and pitfalls. Pp. 127-163 in *Wildlife Responses to Climate Change*. Stephen Schneider & Terry Root, *Eds.* **Island Press**. Washington, D.C.
- 2001 Sagarin, R. False estimates of the advance of spring. **Nature** 414: 600.
- 2001 Sagarin R. and F. Micheli. Climate change in nontraditional data sets. **Science** 294: 811
- 1999 Sagarin, R., J. Barry, S. Gilman, and C. Baxter. Climate related changes in an intertidal community over short and long time scales. **Ecological Monographs** 69: 465-490.
- 1995 Barry J., C. Baxter, R. Sagarin, S. Gilman. Climate-related, long-term faunal changes in a California rocky intertidal. **Science**, 267: 672-675.

**Edited Essays & Correspondence**

- 2014 Sagarin, R. Customer Service Needs to Be Either More or Less Robotic **Harvard Business Review Blog**. November 24.
- 2014 Sagarin, R. Citizen Science: Convergent Evolution Across the Sciences. **American Physical Society Forum on Physics and Society**. April 2014
- 2013 Sagarin, R. Biohacking: Tapping Life’s Code to Deal with Unpredictable Risk. **IEEE Security & Privacy**. July/August
- 2013 Sagarin, R. To Become More Adaptable, Take a Lesson from Biology **Harvard Business Review Blog**. March 5.
- 2013 Sagarin, R. To Overcome Your Company's Limits, Look to Symbiosis **Harvard Business Review Blog**. June 25.
- 2013 Sagarin, R. Defeat Hackers with Biomimicry. **Harvard Business Review Blog**. June 7.
- 2013 Sagarin, R. Nature & Adaptability: Solutions for an Uncertain World. **LiveBetter**. January.
- 2012 Sagarin, R. Defense department on front lines of climate issue. Op-Ed. **The Arizona Republic** April 22.
- 2012 Sagarin, R. When catastrophe strikes, emulate the octopus. **Wired**. April 2012.
- 2012 Sagarin, R. and Boyer, P. The Intercultural Center for the Study of Deserts and Oceans (CEDO). **Bulletin of the Ecological Society of America**. 93:394–398.
- 2012 Sagarin, R. Tidepools and terrorism: a tale of adaptation. **Frontiers in Ecology and the Environment**. 10(7):390-391
- 2010 Sagarin, R. Science communication: more than words. **Frontiers in Ecology and the Environment**. 9(8): 458
- 2010 Sagarin, R. and M. Turnipseed. The Gulf oil disaster and the Public Trust Doctrine. **McClatchy**. June 11.
- 2010 Sagarin, R. Nature’s lessons for adapting to the terrorist threat. Op-Ed. **McClatchy**. January 8.
- 2009 Sagarin, R. Barefoot in the desert. **Tucson Green Times**. November.
- 2009 Sagarin, R. A natural security briefing: five key security lessons from nature. **Washington Technology**. April
- 2009 Sagarin, R. Using nature’s clock to measure phenology. **Frontiers in Ecology and the Environment**. 7(6): 296.
- 2009 North Carolina Ocean Policy Steering Committee (one of 15 members). Developing a Management Strategy for North Carolina’s Coastal Ocean. Report to the North Carolina Coastal Resources Commission.
- 2008 Sagarin, R. Swimming outside the box. **Worth Magazine**. August/September
- 2008 Sagarin, R. and Taylor, T. Adaptation is key to national security. Op-Ed. **The Philadelphia Inquirer**. September 9, 2008.

**Edited Essays and Correspondence (Continued)**

- 2008 Sagarin, R. Fiddler crabs and dirty bombs: a multidisciplinary look at “Natural Security”. **The Bear Deluxe Magazine**. 27: 18-22.
- 2007 Sagarin, R. In support of observational studies. **Frontiers in Ecology and the Environment** 5(6): 294
- 2005 Sagarin, R., J. Smith, J. Augello. Assessment of the Information Need for Protection of the Bay’s Living Resources and Habitats. Report for the **Santa Monica Bay Restoration Commission**
- 2003 Sagarin, R. Homeland and climatic security at the crossroads of science and policy. **GSA Today** Vol. 13, No. 6, pp. 58–9.

**SELECTED INVITED PRESENTATIONS (of approximately 150)**

- 2/15 **Desert Skies Symposium** Keynote Address, Tucson, AZ
- 2/15 **US Institute of Peace** Keynote Address, Washington, DC
- 2/15 **Center for Homeland Defense and Security**. Executive Leaders Program, Monterey, CA
- 9/14 **Southwest Leadership Program** Keynote Workshop, Tucson, AZ
- 6/14 **AZ Human Resources Executive Forum** Keynote Speaker, Phoenix, AZ
- 6/14 **Nuclear Energy Institute** Emergency Preparedness Forum Keynote Address, Savannah, GA
- 5/14 **United States Peace Corps** Washington, DC
- 5/14 **Department of Homeland Security** Office of Health Affairs, Washington, DC
- 4/14 **UA College of Science** Science Café, Tucson, AZ
- 4/14 **UCLA Marschak Seminar**, Los Angeles, CA
- 2/14 **Oceans and Deserts Conference** University of Arizona, Tucson, AZ
- 2/14 **CultureSync, Inc.** Tribal Leadership Intensive. Featured Speaker. Webinar
- 1/14 **Center for Homeland Defense and Security** Radiologic Emergency Program, Monterey, CA
- 11/13 **University of Stellenbosch** Keynote Address, Stellenbosch, South Africa
- 10/13 **Montana State University** Bozeman, MT
- 10/13 **University of Montana** Presidential Lecture, Missoula, MT
- 10/13 **Coca-Cola Marketing Summit** Keynote Address, Los Angeles, CA
- 10/13 **SACNAS 2013 Annual Meeting**, San Antonio, TX
- 9/13 **Idea Festival** Featured Speaker, Louisville, KY
- 7/13 **UA New Start Conference for Incoming Students** Keynote Address, Tucson, AZ
- 7/13 **Pacific Grove Museum of Natural History** Pacific Grove, CA
- 6/13 **National Defense University** Africa Center, Washington, DC
- 4/13 **New England Aquarium** Boston, MA
- 4/13 **Alliance for Peacebuilding** Washington, DC
- 3/13 **Smithsonian Tropical Research Institute** Panama City, Panama
- 1/13 **Center for International Governance Innovation** Waterloo, Canada
- 12/12 **American Association for the Advancement of Science** San Francisco, CA
- 12/12 **Stanford University** Hopkins Marine Station. Pacific Grove, CA
- 11/12 **Marketing Science Institute** Annual Board Meeting, Phoenix, AZ
- 10/12 **International Association of Emergency Managers**, Annual Meeting, Orlando, FL
- 10/12 **American Red Cross** Keynote Address, Annual Meeting, Oakland, CA
- 8/12 **Powell’s Bookstore** Portland, OR
- 6/12 **Center for Global Development** Washington, DC
- 6/12 **Rocky Mountain Biological Lab** Gothic, CO
- 5/12 **Stanford University** Earth Systems Program, Stanford, CA
- 5/12 **Google, Inc.** San Francisco, CA
- 5/12 **Commonwealth Club** San Francisco, CA
- 4/12 **National Defense University** Washington, DC

### SELECTED CONTRIBUTED PRESENTATIONS

- 2012 **Adaptation Futures** International Conference Tucson, AZ  
1996-2012 **Western Society of Naturalists** Fourteen Annual Meetings. Various locations.  
8/09 **Ecological Society of America** Annual Meeting. Albuquerque, NM  
7/07 **Society for Conservation Biology** Annual Meeting. Port Elizabeth, South Africa  
1/05 **Society for Integrative and Comparative Biology** Annual Meeting. San Diego, CA  
6/04 **Western Society of Malacologists** Annual Meeting. Ensenada, Mexico  
6/04 **Gulf of California Conference** Tucson, AZ

### SYNERGISTIC ACTIVITIES

- Film: *An Ocean Under Glass* (writer, narrator) Accepted to Beneath the Waves Film Festival 2015  
Editor: Environment Section, *Evolution: This View of Life* <http://thisviewoflife.com>  
Co-organizer: 2012 Ecological Society of America Annual Meeting Symposium: Observation and Life on Earth: the Changing Face of 21<sup>st</sup> Century Ecological Science  
Organizer: 2012 Symposium on Military and Climate Adaptation. Adaptation Futures Conference, Tucson, AZ  
Faculty Advisor: 2011 Arizona K-12 Center Tech Camp for teacher training in environmental science  
Co-organizer: 2009 Ecological Society of America Annual Meeting: Organized oral session on the Public Trust Doctrine. Albuquerque, NM  
Co-organizer: 2009 International Marine Conservation Congress Symposium: In Conservation We Trust: Reviving the Public Trust Doctrine to Conserve Oceans. Fairfax, VA  
Co-organizer: AAAS 2009 Annual Meeting Symposium: Natural Security – A Darwinian Approach to a Dangerous World. Chicago, IL  
Participant: (ongoing)NCEAS Working Group: Envisioning a Sustainable Global Seafood Market and Restored Marine Ecosystems. Santa Barbara, CA  
Participant: 2007-8 NCEAS Working Group: Market Based Mechanisms for by-catch Mitigation. Santa Barbara, CA  
Principal Investigator 2005-2007: NCEAS Working Group: *Ecological and evolutionary models for homeland security strategy*. Santa Barbara, CA  
Guest Instructor: Beam Reach Science and Sustainability Field School, Friday Harbor, WA  
Participant: 2005 Union of Concerned Scientists Science Education Day, Sacramento, CA  
Researcher: 2004 expedition to retrace the Steinbeck/Ricketts' Sea of Cortez expedition of 1940.  
Co-organizer: AAAS 2002 Annual Meeting Symposium: Community-Based Marine Resource Management

### ACADEMIC SERVICE

- 2011-15 Reviewer & Mentor, Carson Graduate Scholars Fellowships, University of Arizona  
2010-13 Chair of Judges, Annual Graduate Student Environmental Research Blitz, University of Arizona  
2009-15 Graduate Advisor, Prescott College, Prescott, AZ  
2007-2011 Student Advising, Duke University: 3 Ph.D.; 4 Master's in Environmental Management; 1 undergraduate  
2008-9 Provost's Undergraduate Team Teaching Initiative, Duke University  
2008 Faculty Search Committee, Biological Oceanography, Division of Marine Science and Conservation, Nicholas School of the Environment, Duke University *Resulted in hire of James Hench*  
2008 Faculty Search Committee, Social Science Conservation, Division of Marine Science and Conservation, Nicholas School of the Environment, Duke University *Resulted in hire of Xavier Basurto*  
2008-9 Undergraduate Initiative on Marine Science and Conservation, Duke University  
Reviewer: (Positions): AAAS Science and Technology Policy Fellows Program; GSA Congressional Fellows  
(Grants): California Sea Grant; National Estuarine Research Reserve System; National Geographic Society; NOAA Center for Sponsored Coastal Ocean Research; National Parks Service George Melendez Wright Climate Change Fellowships; Natural Sciences and Engineering Research Council of Canada; Romanian National Science Foundation; Swiss National Science Foundation; U.S. National Science Foundation

(Journal Articles): *Bulletin of Marine Science; Climate Research; Conservation Biology; Ecological Applications; Ecological Indicators; Ecology; Ecology Letters; Environmental Management; Frontiers in Ecology and the Environment; Functional Ecology; Global Ecology and Biogeography; Journal of Biogeography; Journal of Ecology; Journal of Experimental Marine Biology and Ecology; Journal of Integrated Coastal Zone Management; Journal of Sea Research; Marine Biology; Marine Ecology Progress Series; Molecular Ecology; Oikos; PLoS One; Science; Stanford Journal of Law, Science and Policy; Sustainability*

(Books): Quarterly Review of Biology; University of Iowa Press; University of Oxford Press; *Ecology; Science; Reports of the National Center for Science Education*

## **PUBLIC SERVICE**

Board Vice President: CEDO Intercultural, Tucson, AZ and Puerto Penasco, Mexico  
 Member: Marine Science Panel, Multi-Agency Rocky Intertidal Network  
 Mentor: Arizona Assurance Scholars, University of Arizona  
 Member: North Carolina Ocean Policy Steering Committee  
 Legislative Advisor: Joint Ocean Commissions Initiative  
 Member: Albemarle-Pamlico National Estuarine Program Science and Technical Advisory Committee

## **TEACHING EXPERIENCE**

2012, 2015 University of Arizona, School of Natural Resources & the Environment and Honors College Graduate and Undergraduate Seminar, *The Desert Sea: Exploring the Social Ecological Nexus in the Gulf of California*

2011 University of Arizona, School of Natural Resources & the Environment. Graduate Seminar *Observational Life Sciences in a Dynamic World*

2009 Duke University. Nicholas School of the Environment. Undergraduate capstone course: *Marine Conservation Science and Policy*

2008, 2009 Duke University. Nicholas School of the Environment. Graduate course: *Marine Ecosystem Based Management*

2008 Duke University. Biology Department. California Coastal Ecosystems. Field Course.

2007 Duke University. Nicholas School of the Environment. Graduate seminar: *Marine Ecosystem Based Management: Hype or Hope?*

2005, 2006 University of California, Los Angeles. Department of Ecology and Evolutionary Biology and Institute of the Environment. Freshman seminar on climate change and biological systems and upper division ecology.

2002 California State University Monterey Bay. Hired to design and teach 2 courses in Earth Systems Science and Policy on global environmental problems.

9/96-6/01 Teaching Assistant and Lab Instructor for undergraduate biology courses at Stanford University and University of California Santa Barbara

## **GRANTS and FELLOWSHIPS**

### **Principal Investigator**

*Submitted* National Science Foundation *Dimensions of Biodiversity* (\$1.5 M)

*Submitted* Institute of the Environment Faculty Seed Grant (\$10,000)

2014 UA-CONACYT Arid Lands International Cooperation Grant (\$25,000)

2013 Faculty Seed Grant, University of Arizona (\$10,000)

2012 Department of Defense Climate Change Adaptation (\$1.2 M)

2009 American Philosophical Society Franklin Grants in Aid of Research (\$5,000)

2008 Mia Tegner Award for Historical Ecology Research (\$2,800)

2005 Switzer Foundation Leadership Grant (\$20,000)

2005 California Coastal Conservancy Wetlands Recovery Project (\$30,000)

2004 Santa Monica Bay Restoration Commission (\$65,000)



### Co-PI/Participant/Senior Personnel

2010 University of Arizona AHSS Faculty Grants (\$20,000)  
 2002-2007 NSF Biocomplexity in the Environment (\$1.3 million)  
 9/98-2/01 Partnership for Interdisciplinary Studies of the Coastal Oceans (PISCO) (varying amounts)  
 9/98-12/00 NSF Research Training Grant in Spatial Ecology (\$25,000 per year)

### AWARDS

2011 **Johnson Award** Conchologists of America  
 2003 **2003 Bradley Prize for Best Paper** Geological Society of Washington  
 2000 **The San Jose Mercury News Silver Pen Award** for editorial letters  
 1997 **Nejat B. Ezal Fellowship Essay Contest** Winning essay.  
 1997 **Monterey Bay Independent Booksellers Short Story Contest.** 2nd prize.  
 1996 **Edwin and Jean Corle Memorial Book Collection Contest.** UCSB. 2nd prize.

### RECENT MEDIA COVERAGE of RESEARCH

2014 National Geographic News. “Why Are Scientists Building an ‘Ocean’ in the Middle of the Desert?” Jane J. Lee. July 19  
 2014 Arizona Illustrated. “Biosphere 2 Plans to Build a Small Replica of the Gulf of California.” April 15  
 2014 Stolte, Daniel. “A New Ocean for the Desert” UA News. March 31.  
 2013 Amandolare, Sarah. “Will Biomimicry Offer a Way Forward, Post-Sandy?” New York Times Green Blog. January 4.  
 2012 Extensive print, web, and radio coverage of “Learning from the Octopus”  
 2012 Stolte, Daniel “Back to the Future: A New Science for a Changing Planet.” UA News, August 31.  
 2011 Doster, Stephanie “Observing Nature to Help Make Sense of a Complex World.” UA News, April 8.  
 2010 Hankins, Lamar. “The BP Oil Disaster Demonstrates Need for Ending Offshore Drilling.” San Marcos Mercury. June 13.  
 2010 Beal, Tom. “UA Biologist: Cues from Nature Useful in Keeping Humans Safe.” Arizona Daily Star. June 1.  
 2010 Anonymous. “Public Trust Doctrine Could Aid Management of U.S. Ocean Waters.” ScienceDaily. April 13.  
 2009 Beal, Tom. “UA Researchers Retrace Journeys of Yore.” Arizona Daily Star. November 29.  
 2009 Dowd, Alan. “Not Doing What Comes Naturally.” TCS Daily. June 29.  
 2009 Schneidmiller, Chris. 2009. “Evolution Offers Natural Security Lessons, Scientists Say.” Global Security Newswire. gsn.nti.org. March 23.  
 2009 Bates, Karl Leif. “Ecologist Preaches ‘Natural’ Security.” Duke Research. January 12.  
 2008 Whitfield, John. “Interview: Using Nature to Tackle Terrorism.” NewScientist. February 9.  
 2008 Gewin, Virginia. “Natural Security.” Frontiers in Ecology and the Environment. May.  
 2008 Nijhuis, Michelle. “A Biologist Explains What Security Experts Can Learn from Nature.” Grist. April  
 2008 Yousef, Sameer. “Peacocks and Security.” Science Progress. April 11.  
 2007 Gordon, Dick. “Reading the Sea of Cortez”. The Story, National Public Radio. August 3.  
 2007 Lucas, Tim. “An Irreconcilable Conflict? Marine Ecologist Rafe Sagarin Bridges the Gap Between Scientific Fact and Advocacy.” Dukenvironment. Fall.

### WEBSITES

<a href="http://www.rafesagarin.com">www.rafesagarin.com</a>	Personal and professional activities
<a href="http://www.adaptablesolutions.org">www.adaptablesolutions.org</a>	Research, writing, and videos on applied adaptability
<a href="http://www.observationandecology.com">www.observationandecology.com</a>	Writing on new trends in life science
<a href="http://www.linozoic.com">www.linozoic.com</a>	Biologically and culturally inspired artwork

**PERSONAL** Proficient in Spanish; completed seven marathons; political cartoonist; artist; cancer survivor; father