

**DR. RAPHAEL DAVID SAGARIN**

Institute of the Environment, University of California, Los Angeles, CA 90095-1496

Office: 310-794-4904 • Cell: 310-739-6136 • E-mail: [sagarin@ucla.edu](mailto:sagarin@ucla.edu) • Web: [www.bol.ucla.edu/~sagarin](http://www.bol.ucla.edu/~sagarin)**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.

**POST-DOCTORAL POSITIONS:**

- 1/05-12/05 **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** AAAS 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

**GRANTS and FELLOWSHIPS:****Principal Investigator:**

- Submitted* Switzer Foundation Leadership Grant (\$30,000)
- Submitted* USC SeaGrant Urban Ocean Program (\$70,000)
- 2005 California Coastal Conservancy Wetlands Recovery Project (\$30,000)
- 2004 Switzer Foundation Leadership Grant (\$30,000)
- 2004 Santa Monica Bay Restoration Commission (\$65,000)
- 2004 National Center for Ecological Analysis and Synthesis: Working Group (\$37,770)
- 2000 Switzer Foundation Environmental Fellowship (\$13,000)
- 2000 Sigma Xi Grants in Aid of Research (\$1000)
- 2000 Lerner Gray Fund for Marine Research (\$1500)
- 2000 UCSB Affiliates Fellowship (\$3000)
- 2000 UCSB Science and Engineering Fellowship (\$7000)
- 2000 UCSB Graduate Division Fellowship (\$2000)
- 9/95-9/98 NASA Global Change Research Fellowship (\$22,000 per year)
- 1998 National Wildlife Federation Climate Change Fellowship (\$5000)
- 1996 & 1997 Myers Oceanographic and Marine Biology Trust (\$1000)
- 1996 Lerner-Gray Fund for Marine Research (\$600)

**Co-PI/Participant/Senior Personnel:**

- Submitted* National Science Foundation: Partnerships for Innovation (\$592,885)
- 2002-present 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)

**PUBLICATIONS:**

- Submitted* Sagarin, R., S. Gaines, B. Gaylord. Abundance distributions and species' ranges: moving beyond the assumptions. **Trends in Ecology and Evolution** (*by invitation*)
- Submitted* Sagarin, R., R. Ambrose, B. Becker, J. Engle, J. Kido, S. Lee, C. M. Miner, S. Murray, P. Raimondi, D. Richards, C. Roe. Population size structures of the exploited limpet *Lottia gigantea* across a wide latitudinal range. **Marine Biology**
- Submitted* Raimondi, P., Sagarin, R., R. Ambrose, M. George, S. Lee, D. Lohse, C. M. Miner, S. Murray, C. Roe. Conspicuous color patterns in the sea star *Pisaster ochraceus*. **Biological Bulletin**
- Submitted* Sagarin, R., S. Gaines. Recent studies improve understanding of population dynamics across species ranges. **Oikos**
- In press* 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**
- 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
- 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.

**Book Chapters/Edited Volumes:**

- Submitted* Sagarin, R. and T. Taylor, editors. Natural Defense: Darwinian Perspectives on Security in an Uncertain World. Proposal to **University of California Press**.
- Submitted* Sagarin, R. Climate change. *In* Encyclopedia of Tidepools. Edited by Steven Gaines and Mark Denny. **University of California Press**
- Invited* Gaines, S, B. Gaylord, B. Kinlan, S. Lester, R. Sagarin, E. Weiters. The impacts of dispersal on marine macroecology. *In* upcoming volume on Marine Macroecology. Edited by Kaustov Roy and Jon Witman. **University of Chicago Press**

- 2003 Sagarin, R. Homeland and climatic security at the crossroads of science and policy. **GSA Today** Vol. 13, No. 6, pp. 58–9.
- 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. Pages 127-163 *in Wildlife Responses to Climate Change*. Edited by Stephen Schneider & Terry Root. **Island Press**. Washington, D.C.

**SELECTED INVITED PRESENTATIONS:**

- 10/05 **MARINe Annual Workshop** Keynote Speaker. Santa Cruz, CA
- 8/05 **Ecological Society of America** Annual Meeting. Montreal, Canada
- 2/05 **University of California, Los Angeles** Environmental Science & Engineering
- 12/04 **University of Southern Maine** Environmental Science Seminar. Gorham, ME
- 12/04 **Occidental College** Biology Seminar. Los Angeles, CA
- 9/04 **City of Santa Monica** Sustainable City Plan Anniversary Celebration. Santa Monica, CA
- 9/04 **California State University Fullerton**. Biology Seminar. Fullerton, CA
- 5/04 **CEA-CREST** Annual Environmental Science Conference. Pasadena, CA
- 3/04 **University of California, Santa Cruz** Environmental Studies seminar. Santa Cruz, CA
- 1/04 **Scripps Institute of Oceanography** Science Policy Seminar. La Jolla, CA
- 1/04 **Scripps Institute of Oceanography** Marine Biology Seminar Series. La Jolla, CA
- 11/03 **Geological Society of America** Annual Meeting. Seattle, WA
- 4/03 **Brown University** Ecology & Evolutionary Biology Seminar. Providence, RI
- 3/03 **Geological Society of Washington** Members meeting. Washington, DC
- 3/03 **University of California, Berkeley** Integrative Biology Seminar. Berkeley, CA
- 12/02 **Sonoma State University** Biology Seminar. Rohnert Park, CA
- 9/02 **University of North Carolina, Wilmington** Biology Seminar. Wilmington, NC
- 12/01 **Lawrence Berkeley National Laboratories** Seminar Series. Berkeley, CA
- 11/01 **Friends of Moss Landing Marine Lab** Seminar Series. Moss Landing, CA
- 9/01 **Stanford University** Sophomore College marine science program, Monterey, CA
- 7/01 **Stanford University Alumni Association** Alumni College in Monterey, CA
- 7/01 **Bodega Marine Lab** Seminar Series. Bodega Bay, CA
- 2/01 **Hopkins Marine Station of Stanford University**. Biology Seminar. Pacific Grove, CA
- 9/99 **Royal Society for the Protection of Birds** Climate Change Workshop. Norwich, England.
- 8/99 **International Congress on Ecosystem Health** Sacramento, CA
- 8/99 **Ecological Society of America** Annual Meeting Spokane, WA
- 6/99 **California State Energy Commission Workshop on Climate Change** Sacramento, CA.
- 2/99 **WWF Workshop on Marine Responses to Climate Change** Washington, D.C.
- 10/98 **EPA Conference on Impacts of Climate Change on Flora and Fauna** Washington, D. C.
- 12/97 **Western Society of Naturalists** 78th Annual Meeting. Monterey, CA
- 9/97 **BirdLife International/WWF Workshop on Impacts of Climate Change on Flora and Fauna**  
National Center for Atmospheric Research. Boulder, CO.
- 9/96 **Spatial Ecology Training Grant Retreat** Santa Barbara, CA.
- 8/96 **American Cetacean Society Meeting** Monterey, CA.
- 3/95 **School of Earth Sciences, Stanford University** An Evening with Earth Sciences Students.

**SELECTED CONTRIBUTED PRESENTATIONS:**

- 1996-2005 **Western Society of Naturalists** Annual Meetings
- 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  
7/97           **4th International Temperate Reef Symposium** Santiago, Chile.

**RESEARCH:**

Intertidal community ecology. Community responses to climate change. Biogeographic patterns of species' ranges. Historical ecology and phenology. Restoration ecology. Small scale marine fisheries. Comparative adaptational physiology. Evolutionary approaches to homeland security.

**SYNERGISTIC ACTIVITIES:**

Principal Investigator: NCEAS Working Group: *Ecological and evolutionary models for homeland security strategy*

Guest Instructor: Beam Reach Science and Sustainability Field School, Friday Harbor, WA

Reviewer: Intergovernmental Panel on Climate Change

Natural Sciences and Engineering Research Council of Canada

Swiss National Science Foundation

National Geographic Society

*Ecology Letters, Journal of Biogeography, Bulletin of Marine Science, Journal of Sea Research*

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

**TEACHING EXPERIENCE:**

4/05           **Lecturer** University of California, Los Angeles. Department of Ecology and Evolutionary Biology. Upper division ecology.  
1/02-5/02   **Lecturer/Course Development** California State University Monterey Bay. Hired to design and teach 2 courses in Earth Systems Science and Policy on global environmental problems.  
7/99 & 6/01 **Lecturer** Stanford University Alumni Association. Summer Seminar in Oceanography.  
3/99-6/99   **Teaching Assistant** Hopkins Marine Station. Undergraduate Research Course.  
4/97-6/97   **Lab Instructor** University of California, Santa Barbara. Department of Ecology, Evolution, and Marine Biology. Comparative Organismal Biology..  
9/96-12/96 **Teaching Assistant** University of California, Santa Barbara. Department of Ecology, Evolution, and Marine Biology. Principles of Ecology.

**AWARDS:**

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.

**PERSONAL:** Conversational Spanish; completed six marathons; political cartoonist; father; cancer survivor