Stanford



Stephen Palumbi

Jane and Marshall Steel Jr. Professor of Marine Sciences, Professor of Oceans and of Biology

Bio

BIO

Steve has long been fascinated by how quickly the world around us changes. Work on the genomics of marine organisms tries to focus on basic evolutionary questions but also on practical solutions to questions about how to preserve and protect the diverse life in the sea. Steve has lectured extensively on human-induced evolutionary change, has used genetic detective work to identify whales, seahorses, rockfish and sharks for sale in retail markets, and is developing genomic methods to help find ocean species resistant to climate change. Work on corals in American Samoa and Palau has identified corals more resilient to heat stress. Work at the Hopkins Marine Station focuses on how kelp, sea urchins, abalone and mussels respond to short term environmental changes and to environmental shifts over small spatial scales.

Steve’s latest book for non-scientists is about the amazing species in the sea, written with Steve’s son and novelist Anthony. The Extreme Life of the Sea tells about the fastest species in the sea, and hottest, coldest, oldest etc. Steve's previous book, The Death and Life of Monterey Bay: A Story of Revival, written with Carolyn Sotka, brought to life the unusual environmental success story of the recovery of Monterey Bay. Steve's first science book for non-scientists The Evolution Explosion explored how human accelerate evolutionary change in the species around us. Steve helped write, research and also appears in the BBC series The Future is Wild and the History Channel's World Without People. Other recent films appearances include The End of the Line, and the Canadian Broadcasting series One Ocean. Major work continues on the microdocumentary project, the Short Attention Span Science Theater. Steve's band Sustainable Soul has several songs out, including Crab Love and The Last Fish Left.

ACADEMIC APPOINTMENTS

- Professor, Oceans
- Professor, Biology
- Member, Bio-X
- Affiliate, Stanford Woods Institute for the Environment

PROGRAM AFFILIATIONS

- Public Policy

LINKS

- My Lab Site: https://palumbilab.stanford.edu

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

Stephen R. Palumbi received his Ph.D. from University of Washington in marine ecology. His research group studies the genetics, evolution, conservation, population biology and systematics of a diverse array of marine organisms.

Professor Palumbi's own research interests are similarly widespread, and he has published on the genetics and evolution of sea urchins, whales, cone snails, corals, sharks, spiders, shrimps, bryozoans, and butterflyfishes. A primary focus is the use of molecular genetic techniques in conservation, including the identification of whale and dolphin products available in commercial markets.

Current conservation work centers on the genetics of marine reserves designed for conservation and fisheries enhancement, with projects in the Philippines, Bahamas and western U.S. coast. In addition, basic work on the molecular evolution of reproductive isolation and its influence on patterns of speciation uses marine model systems such as sea urchins. This work is expanding our view of the evolution of gamete morphology and the genes involved.

Steve is based at Stanford University's Hopkins Marine Station, where he is now the Director. Steve is a Pew Fellow in Marine Conservation, senior fellow at the Woods Institute for the Environment, married to physician Mary Roberts, father of two grown children, and founding member of the band Sustainable Sole.

Teaching

COURSES

2026-27

- Biology PhD Lab Rotation: BIO 299 (Aut, Win, Spr)
- Coral Reef Ecosystems: OSPAUSTL 10 (Aut)

2025-26

- Coral Reef Ecosystems: OSPAUSTL 10 (Aut)
- Planet Ocean: BIO 71, ESS 71, OCEANS 71 (Win)
- The Science of Extreme Life of the Sea: BIO 140, OCEANS 141H (Spr)

2024-25

- Coral Reef Ecosystems: OSPAUSTL 10 (Aut)
- Planet Ocean: BIO 71, ESS 71, OCEANS 71 (Win)
- Scientific Communications: An Introduction: OCEANS 305 (Spr)
- The Science of Extreme Life of the Sea: BIO 140, OCEANS 141H (Spr)

2023-24

- Get to Know Your Oceans: OCEANS 300A (Aut)
- Planet Ocean: BIO 71, ESS 71, OCEANS 71 (Win)

STANFORD ADVISEES

Doctoral Dissertation Reader (AC)

Ceyenna Tillman

Doctoral Dissertation Advisor (AC)

Kaikuliumaikalani kaholoaa

GRADUATE AND FELLOWSHIP PROGRAM AFFILIATIONS

- Biology (School of Humanities and Sciences) (PhD Program)

Publications

PUBLICATIONS

- **Footprints of local adaptation span hundreds of linked genes in the Atlantic silverside genome.** *Evolution letters*
  Wilder, A. P., Palumbi, S. R., Conover, D. O., Therkildsen, N. O.
  2020; 4 (5): 430-443

- **Footprints of local adaptation span hundreds of linked genes in the Atlantic silverside genome** *EVOLUTION LETTERS*
  Wilder, A. P., Palumbi, S. R., Conover, D. O., Therkildsen, N.
  2020

- **Ocean acidification causes variable trait shifts in a coral species.** *Global change biology*
  Teixidó, N. n., Caroselli, E. n., Alliouane, S. n., Ceccarelli, C. n., Comeau, S. n., Gattuso, J. P., Fici, P. n., Micheli, F. n., Mirasole, A. n., Monismith, S. G., Munari, M. n., Palumbi, S. R., Sheets, et al
  2020

- **Somatic mutations and genome stability maintenance in clonal coral colonies.** *Molecular biology and evolution*
  Lopez, E. H., Palumbi, S. R.
  2019

- **PLANNING FOR CHANGE Assessing the Potential Role of Marine Protected Areas and Fisheries Management Approaches for Resilience Management in a Changing Ocean** *OCEANOGRAPHY*
  Kroeker, K. J., Carr, M. H., Raimondi, P. T., Caselle, J. E., Washburn, L., Palumbi, S. R., Barth, J. A., Chan, F., Menge, B. A., Milligan, K., Novak, M., White, J.
  2019; 32 (3): 116–25

- **PRESENT AND FUTURE ADAPTATION OF MARINE SPECIES ASSEMBLAGES DNA-Based Insights into Climate Change from Studies of Physiology, Genomics, and Evolution** *OCEANOGRAPHY*
  Palumbi, S. R., Evans, T. G., Pespeni, M. H., Somero, G. N.
  2019; 32 (3): 82–93

- **Connectivity, Dispersal, and Recruitment CONNECTING BENTHIC COMMUNITIES AND THE COASTAL OCEAN** *OCEANOGRAPHY*
  White, J., Carr, M. H., Caselle, J. E., Washburn, L., Woodson, C., Palumbi, S. R., Carlson, P. M., Warner, R. R., Menge, B. A., Barth, J. A., Blanchette, C. A., Raimondi, P. T., Milligan, et al
  2019; 32 (3): 50–59

- **SIDEBAR. Empirical Approaches to Measure Connectivity** *OCEANOGRAPHY*
  White, J., Carr, M. H., Caselle, J. E., Palumbi, S. R., Warner, R. R., Menge, B. A., Milligan, K.
  2019; 32 (3): 60–61

- **Cobble community DNA as a tool to monitor patterns of biodiversity within kelp forest ecosystems.** *Molecular ecology resources*
  Shum, P., Barney, B. T., O'Leary, J. K., Palumbi, S. R.
  2019

- **Management for network diversity speeds evolutionary adaptation to climate change** *NATURE CLIMATE CHANGE*
  Walsworth, T. E., Schindler, D. E., Colton, M. A., Webster, M. S., Palumbi, S. R., Mumby, P. J., Essington, T. E., Pinsky, M. L.
  2019; 9 (8): 632-+

- **Sub-weekly coral linear extension measurements in a coral reef** *JOURNAL OF EXPERIMENTAL MARINE BIOLOGY AND ECOLOGY*
  Ruiz-Jones, L. J., Palumbi, S. R.
  2019; 516: 114–22

- **Transcriptomic resilience, symbiont shuffling, and vulnerability to recurrent bleaching in reef-building corals.** *Molecular ecology*
  Thomas, L., Lopez, E. H., Morikawa, M. K., Palumbi, S. R.
  2019
- **Empowering conservation practice with efficient and economical genotyping from poor quality samples** *METHODS IN ECOLOGY AND EVOLUTION*
  Natesh, M., Taylor, R. W., Truelove, N. K., Hadly, E. A., Palumbi, S. R., Petrov, D. A., Ramakrishnan, U.
  2019; 10 (6): 853–59
- **Empowering conservation practice with efficient and economical genotyping from poor quality samples.** *Methods in ecology and evolution*
  Natesh, M., Taylor, R. W., Truelove, N. K., Hadly, E. A., Palumbi, S. R., Petrov, D. A., Ramakrishnan, U.
  2019; 10 (6): 853-859
- **Using naturally occurring climate resilient corals to construct bleaching-resistant nurseries** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
  Morikawa, M. K., Palumbi, S. R.
  2019; 116 (21): 10586–91
- **Using naturally occurring climate resilient corals to construct bleaching-resistant nurseries.** *Proceedings of the National Academy of Sciences of the United States of America*
  Morikawa, M. K., Palumbi, S. R.
  2019
- **Contrasting genomic shifts underlie parallel phenotypic evolution in response to fishing.** *Science (New York, N.Y.)*
  Therkildsen, N. O., Wilder, A. P., Conover, D. O., Munch, S. B., Baumann, H. n., Palumbi, S. R.
  2019; 365 (6452): 487–90
- **Risk-sensitive planning for conserving coral reefs under rapid climate change** *CONSERVATION LETTERS*
  Beyer, H. L., Kennedy, E., Beger, M., Chen, C., Cinner, J. E., Darling, E. S., Eakin, C., Gates, R. D., Heron, S. F., Knowlton, N., Obura, D. O., Palumbi, S. R., Possingham, et al
  2018; 11 (6)
- **Accurate population genetic measurements require cryptic species identification in corals** *CORAL REEFS*
  Sheets, E. A., Warner, P. A., Palumbi, S. R.
  2018; 37 (2): 549–63
- **Long-term growth rates and effects of bleaching in Acropora hyacinthus** *CORAL REEFS*
  Gold, Z., Palumbi, S. R.
  2018; 37 (1): 267–77
- **Polygenic evolution drives species divergence and climate adaptation in corals** *EVOLUTION*
  Rose, N. H., Bay, R. A., Morikawa, M. K., Palumbi, S. R.
  2018; 72 (1): 82–94
- **Genomic models predict successful coral adaptation if future ocean warming rates are reduced.** *Science advances*
  Bay, R. A., Rose, N. H., Logan, C. A., Palumbi, S. R.
  2017; 3 (11): e1701413
- **The genomics of recovery from coral bleaching.** *Proceedings. Biological sciences*
  Thomas, L., Palumbi, S. R.
  2017; 284 (1865)
- **Calcifying algae maintain settlement cues to larval abalone following algal exposure to extreme ocean acidification.** *Scientific reports*
  O'Leary, J. K., Barry, J. P., Gabrielson, P. W., Rogers-Bennett, L., Potts, D. C., Palumbi, S. R., Micheli, F.
  2017; 7 (1): 5774
- **Robert Treat Paine III (1933-2016).** *Proceedings of the National Academy of Sciences of the United States of America*
  Palumbi, S. R., Estes, J. A., Kareiva, P., Levin, S. A., Lubchenco, J., Power, M. E.
  2017; 114 (27): 6881-6882

- **Transcriptome predictors of coral survival and growth in a highly variable environment.** *Ecology and evolution*
  Bay, R. A., Palumbi, S. R.
  2017; 7 (13): 4794-4803

- **Coral reefs in the Anthropocene** *NATURE*
  Hughes, T. P., Barnes, M. L., Bellwood, D. R., Cinner, J. E., Cumming, G. S., Jackson, J. B. C., Kleypas, J., van de Leemput, I. A., Lough, J. M., Morrison, T. H., Palumbi, S. R., van Nes, E. H., Scheffer, et al
  2017; 546 (7656): 82–90

- **Highly localized divergence within supergenes in Atlantic cod (Gadus morhua) within the Gulf of Maine** *BMC GENOMICS*
  Barney, B. T., Munkholm, C., Walt, D. R., Palumbi, S. R.
  2017; 18

- **The cell specificity of gene expression in the response to heat stress in corals.** *journal of experimental biology*
  Traylor-Knowles, N., ROSE, N. H., Palumbi, S. R.
  2017

- **Practical low-coverage genomewide sequencing of hundreds of individually barcoded samples for population and evolutionary genomics in nonmodel species.** *Molecular ecology resources*
  Therkildsen, N. O., Palumbi, S. R.
  2017; 17 (2): 194-208

- **Tidal heat pulses on a reef trigger a fine-tuned transcriptional response in corals to maintain homeostasis.** *Science advances*
  Ruiz-Jones, L. J., Palumbi, S. R.
  2017; 3 (3)

- **Bacterial community dynamics are linked to patterns of coral heat tolerance** *NATURE COMMUNICATIONS*
  Ziegler, M., Seneca, F. O., Yum, L. K., Palumbi, S. R., Voolstra, C. R.
  2017; 8

- **Transcriptomic responses to seawater acidification among sea urchin populations inhabiting a natural pH mosaic.** *Molecular ecology*
  Evans, T. G., Pespeni, M. H., Hofmann, G. E., Palumbi, S. R., Sanford, E.
  2017

- **A keystone ecologist: Robert Treat Paine, 1933-2016.** *Ecology*
  Estes, J. A., Dayton, P. K., Kareiva, P., Levin, S. A., Lubchenco, J., Menge, B. A., Palumbi, S. R., Power, M. E., Terborgh, J.
  2016; 97 (11): 2905-2909

- **What are we missing about marine invasions? Filling in the gaps with evolutionary genomics** *MARINE BIOLOGY*
  Sherman, C. D., Lotterhos, K. E., Richardson, M. F., Tepolt, C. K., Rollins, L. A., Palumbi, S. R., Miller, A. D.
  2016; 163 (10)

- **Gene Networks in the Wild: Identifying Transcriptional Modules that Mediate Coral Resistance to Experimental Heat Stress** *GENOME BIOLOGY AND EVOLUTION*
  Rose, N. H., Seneca, F. O., Palumbi, S. R.
  2016; 8 (1): 243-252

- **Transcriptome sequencing reveals both neutral and adaptive genome dynamics in a marine invader** *MOLECULAR ECOLOGY*
  Tepolt, C. K., Palumbi, S. R.
  2015; 24 (16): 4145-4158

- **Ocean acidification research in the 'post-genomic' era: Roadmaps from the purple sea urchin Strongylocentrotus purpuratus** *COMPARATIVE BIOCHEMISTRY AND PHYSIOLOGY A-MOLECULAR & INTEGRATIVE PHYSIOLOGY*
  Evans, T. G., Padilla-Gamino, J. L., Kelly, M. W., Pespeni, M. H., Chan, F., Menge, B. A., Gaylord, B., Hill, T. M., Russell, A. D., Palumbi, S. R., Sanford, E., Hofmann, G. E.
  2015; 185: 33-42

- **Transcriptome-wide Changes in Coral Gene Expression at Noon and Midnight Under Field Conditions** *BIOLOGICAL BULLETIN*
  Ruiz-Jones, L. J., Palumbi, S. R.
  2015; 228 (3): 227-241

- **Marine biology. Uncovering hidden worlds of ocean biodiversity.** *Science*
  Armbrust, E. V., Palumbi, S. R.
  2015; 348 (6237): 865-867
- **SNP genotyping and population genomics from expressed sequences - current advances and future possibilities** *MOLECULAR ECOLOGY*
  De Wit, P., Pespeni, M. H., Palumbi, S. R.
  2015; 24 (10): 2310-2323
- **The role of transcriptome resilience in resistance of corals to bleaching** *MOLECULAR ECOLOGY*
  Seneca, F. O., Palumbi, S. R.
  2015; 24 (7): 1467-1484
- **Marine defaunation: animal loss in the global ocean.** *Science*
  McCauley, D. J., Pinsky, M. L., Palumbi, S. R., Estes, J. A., Joyce, F. H., Warner, R. R.
  2015; 347 (6219)
- **Rapid Acclimation Ability Mediated by Transcriptome Changes in Reef-Building Corals.** *Genome biology and evolution*
  Bay, R. A., Palumbi, S. R.
  2015; 7 (6): 1602-1612
- **Gene Networks in the Wild: Identifying Transcriptional Modules that Mediate Coral Resistance to Experimental Heat Stress.** *Genome biology and evolution*
  Rose, N. H., Seneca, F. O., Palumbi, S. R.
  2015; 8 (1): 243-252
- **Marine Spatial Planning 2.0: genes and satellites to conserve seascape dynamics** *AQUATIC CONSERVATION-MARINE AND FRESHWATER ECOSYSTEMS*
  Mendez, M., Kershaw, F., Palumbi, S., Pinsky, M., Ray, C., Rosenbaum, H., Subramaniam, A.
  2014; 24 (6): 742-744
- **Multilocus Adaptation Associated with Heat Resistance in Reef-Building Corals** *CURRENT BIOLOGY*
  Bay, R. A., Palumbi, S. R.
  2014; 24 (24)
- **Lineage-Specific Transcriptional Profiles of Symbiodinium spp. Unaltered by Heat Stress in a Coral Host.** *Molecular biology and evolution*
  Barshis, D. J., Ladner, J. T., Oliver, T. A., Palumbi, S. R.
  2014; 31 (6): 1343-1352
- **Mechanisms of reef coral resistance to future climate change.** *Science*
  Palumbi, S. R., Barshis, D. J., Traylor-Knowles, N., Bay, R. A.
  2014; 344 (6186): 895-898
- **Translational environmental biology: cell biology informing conservation.** *Trends in cell biology*
  Traylor-Knowles, N., Palumbi, S. R.
  2014; 24 (5): 265-267
- **For the Underwater Record ... A RANGE OF MARINE SPECIES LIVE SURPRISINGLY LONG LIVES.** *NATURAL HISTORY*
  Palumbi, S. R., Palumbi, A. R.
  2014; 122 (3): 34-39
- **Meta-analysis reveals lower genetic diversity in overfished populations** *MOLECULAR ECOLOGY*
  Pinsky, M. L., Palumbi, S. R.
  2014; 23 (1): 29-39
- **Forensic genomics as a novel tool for identifying the causes of mass mortality events.** *Nature communications*
  De Wit, P., Rogers-Bennett, L., Kudela, R. M., Palumbi, S. R.
  2014; 5: 3652-?
- **Signs of Adaptation to Local pH Conditions across an Environmental Mosaic in the California Current Ecosystem.** *Integrative and comparative biology*

Pespeni, M. H., Chan, F., Menge, B. A., Palumbi, S. R.
2013; 53 (5): 857-870

- **Coral bleaching independent of photosynthetic activity.** *Current biology*
  Tolleter, D., Seneca, F. O., DeNofrio, J. C., Krediet, C. J., Palumbi, S. R., Pringle, J. R., Grossman, A. R.
  2013; 23 (18): 1782-1786
- **Signals of selection in outlier loci in a widely dispersing species across an environmental mosaic.** *Molecular ecology*
  Pespeni, M. H., Palumbi, S. R.
  2013; 22 (13): 3580-3597
- **DIFFERENCES IN THE REGULATION OF GROWTH AND BIOMINERALIZATION GENES REVEALED THROUGH LONG-TERM COMMON-GARDEN ACCLIMATION AND EXPERIMENTAL GENOMICS IN THE PURPLE SEA URCHIN** *EVOLUTION*
  Pespeni, M. H., Barney, B. T., Palumbi, S. R.
  2013; 67 (7): 1901-1914
- **The Ecology of Microbial Communities Associated with Macrocystis pyrifera.** *PloS one*
  Michelou, V. K., Caporaso, J. G., Knight, R., Palumbi, S. R.
  2013; 8 (6): e67480
- **The Ecology of Microbial Communities Associated with Macrocystis pyrifera** *PLOS ONE*
  Michelou, V. K., Caporaso, J. G., Knight, R., Palumbi, S. R.
  2013; 8 (6)
- **Transcriptome-wide polymorphisms of red abalone (Haliotis rufescens) reveal patterns of gene flow and local adaptation.** *Molecular ecology*
  De Wit, P., Palumbi, S. R.
  2013; 22 (11): 2884-2897
- **Microevolution in time and space: SNP analysis of historical DNA reveals dynamic signatures of selection in Atlantic cod** *MOLECULAR ECOLOGY*
  Therkildsen, N. O., Hemmer-Hansen, J., Als, T. D., Swain, D. P., Morgan, M. J., Trippel, E. A., Palumbi, S. R., Meldrup, D., Nielsen, E. E.
  2013; 22 (9): 2424-2440
- **Dispersal at a Snail's Pace: Historical Processes Affect Contemporary Genetic Structure in the Exploited Wavy Top Snail (Megastraea undosa)** *JOURNAL OF HEREDITY*
  Haupt, A. J., Michel, F., Palumbi, S. R.
  2013; 104 (3): 327-340
- **Dispersal at a snail's pace: historical processes affect contemporary genetic structure in the exploited wavy top snail (Megastraea undosa).** *journal of heredity*
  Haupt, A. J., Micheli, F., Palumbi, S. R.
  2013; 104 (3): 327-340
- **Evolutionary change during experimental ocean acidification.** *Proceedings of the National Academy of Sciences of the United States of America*
  Pespeni, M. H., Sanford, E., Gaylord, B., Hill, T. M., Hosfelt, J. D., Jaris, H. K., Lavigne, M., Lenz, E. A., Russell, A. D., Young, M. K., Palumbi, S. R.
  2013; 110 (17): 6937-6942
- **Long-term population size of the North Atlantic humpback whale within the context of worldwide population structure** *CONSERVATION GENETICS*
  Ruegg, K., Rosenbaum, H. C., Anderson, E. C., Engel, M., Rothschild, A., Baker, C. S., Palumbi, S. R.
  2013; 14 (1): 103-114
- **Genomic basis for coral resilience to climate change** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
  Barshis, D. J., Ladner, J. T., Oliver, T. A., Seneca, F. O., Traylor-Knowles, N., Palumbi, S. R.
  2013; 110 (4): 1387-1392
- **Protein evolution in two co-occurring types of Symbiodinium: an exploration into the genetic basis of thermal tolerance in Symbiodinium clade D** *BMC EVOLUTIONARY BIOLOGY*
  Ladner, J. T., Barshis, D. J., Palumbi, S. R.

2012; 12

- **The simple fool's guide to population genomics via RNA-Seq: an introduction to high-throughput sequencing data analysis** *MOLECULAR ECOLOGY RESOURCES*
  De Wit, P., Pespeni, M. H., Ladner, J. T., Barshis, D. J., Seneca, F., Jaris, H., Therkildsen, N. O., Morikawa, M., Palumbi, S. R.
  2012; 12 (6): 1058-1067
- **Open and closed seascapes: Where does habitat patchiness create populations with high fractions of self-recruitment?** *ECOLOGICAL APPLICATIONS*
  Pinsky, M. L., Palumbi, S. R., Andrefouet, S., Purkis, S. J.
  2012; 22 (4): 1257-1267
- **Pre-Whaling Genetic Diversity and Population Ecology in Eastern Pacific Gray Whales: Insights from Ancient DNA and Stable Isotopes** *PLOS ONE*
  Alter, S. E., Newsome, S. D., Palumbi, S. R.
  2012; 7 (5)
- **Extensive sympatry, cryptic diversity and introgression throughout the geographic distribution of two coral species complexes** *MOLECULAR ECOLOGY*
  Ladner, J. T., Palumbi, S. R.
  2012; 21 (9): 2224-2238
- **OCEANOGRAPHY Ultra marine** *NATURE*
  Palumbi, S. R.
  2012; 484 (7395): 445-446
- **Genome-wide polymorphisms show unexpected targets of natural selection** *PROCEEDINGS OF THE ROYAL SOCIETY B-BIOLOGICAL SCIENCES*
  Pespeni, M. H., Garfield, D. A., Manier, M. K., Palumbi, S. R.
  2012; 279 (1732): 1412-1420
- **The role of genes in understanding the evolutionary ecology of reef building corals** *EVOLUTIONARY ECOLOGY*
  Palumbi, S. R., Vollmer, S., Romano, S., Oliver, T., Ladner, J.
  2012; 26 (2): 317-335
- **Coastal fronts set recruitment and connectivity patterns across multiple taxa** *LIMNOLOGY AND OCEANOGRAPHY*
  Woodson, C. B., McManus, M. A., Tyburczy, J. A., Barth, J. A., Washburn, L., Caselle, J. E., Carr, M. H., Malone, D. P., Raimondi, P. T., Menge, B. A., Palumbi, S. R.
  2012; 57 (2): 582-596
- **Do fluctuating temperature environments elevate coral thermal tolerance?** *CORAL REEFS*
  Oliver, T. A., Palumbi, S. R.
  2011; 30 (2): 429-440
- **Populations of Symbiodinium muscatinei Show Strong Biogeographic Structuring in the Intertidal Anemone Anthopleura elegantissima** *BIOLOGICAL BULLETIN*
  Sanders, J. G., Palumbi, S. R.
  2011; 220 (3): 199-208
- **Unexpected patterns of fisheries collapse in the world's oceans** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
  Pinsky, M. L., Jensen, O. P., Ricard, D., Palumbi, S. R.
  2011; 108 (20): 8317-8322
- **Many corals host thermally resistant symbionts in high-temperature habitat** *CORAL REEFS*
  Oliver, T. A., Palumbi, S. R.
  2011; 30 (1): 241-250
- **Coastal upwelling is linked to temporal genetic variability in the acorn barnacle Balanus glandula** *MARINE ECOLOGY PROGRESS SERIES*
  Barshis, D. J., Sotka, E. E., Kelly, R. P., Sivasundar, A., Menge, B. A., Barth, J. A., Palumbi, S. R.
  2011; 439: 139-150

- **Designing marine reserve networks for both conservation and fisheries management** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
  Gaines, S. D., White, C., Carr, M. H., Palumbi, S. R.
  2010; 107 (43): 18286-18293
- **Guiding ecological principles for marine spatial planning** *MARINE POLICY*
  Foley, M. M., Halpern, B. S., Micheli, F., Armsby, M. H., Caldwell, M. R., Crain, C. M., Prahler, E., Rohr, N., Sivas, D., Beck, M. W., Carr, M. H., Crowder, L. B., Duffy, et al
  2010; 34 (5): 955-966
- **USING ISOLATION BY DISTANCE AND EFFECTIVE DENSITY TO ESTIMATE DISPERSAL SCALES IN ANEMONEFISH** *EVOLUTION*
  Pinsky, M. L., Montes, H. R., Palumbi, S. R.
  2010; 64 (9): 2688-2700
- **Seascape genetics along a steep cline: using genetic patterns to test predictions of marine larval dispersal** *MOLECULAR ECOLOGY*
  Galindo, H. M., Pfeiffer-Herbert, A. S., McManus, M. A., Chao, Y., Chai, F., Palumbi, S. R.
  2010; 19 (17): 3692-3707
- **A Method for Detecting Population Genetic Structure in Diverse, High Gene-Flow Species** *JOURNAL OF HEREDITY*
  Kelly, R. P., Oliver, T. A., Sivasundar, A., Palumbi, S. R.
  2010; 101 (4): 423-436
- **Life history, ecology and the biogeography of strong genetic breaks among 15 species of Pacific rockfish, Sebastes** *MARINE BIOLOGY*
  Sivasundar, A., Palumbi, S. R.
  2010; 157 (7): 1433-1452
- **Parallel amino acid replacements in the rhodopsins of the rockfishes (Sebastes spp.) associated with shifts in habitat depth** *JOURNAL OF EVOLUTIONARY BIOLOGY*
  Sivasundar, A., Palumbi, S. R.
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