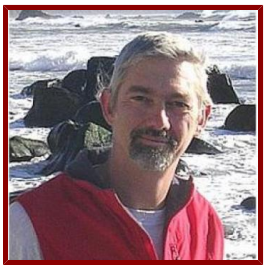
Stanford



# Stephen Palumbi

Jane and Marshall Steel Jr. Professor in Marine Sciences and Senior Fellow at the Woods Institute for the Environment

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 has identified populations more resilient to heat stress. Work at the Hopkins Marine Station focuses on how 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, Biology
- Member, Bio-X
- Affiliate, Stanford Woods Institute for the Environment

### LINKS

- My Lab Site: http://palumbi.stanford.edu/index.html

## 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

**2019-20**

- Scientific Writing: BIOHOPK 330H (Win, Spr)
- The Science of Extreme Life of the Sea: BIO 140 (Spr)

**2018-19**

- Conservation and Population Genomics: BIO 386 (Aut)
- Ecology of the Hawaiian Islands: BIO 116, EARTHSYS 116 (Aut)
- Molecular Ecology Lab: BIOHOPK 159H, BIOHOPK 259H (Spr)
- Scientific Writing: BIOHOPK 330H (Win)
- The Science of Extreme Life of the Sea: BIO 140 (Spr)

**2017-18**

- Conservation and Population Genomics: BIO 386 (Spr)
- Evolution: BIOHOPK 85 (Spr)
- Scientific Writing: BIOHOPK 330H (Win)
- The Science of the Extreme Life of the Sea: BIO 21 (Win)

**2016-17**

- Core Laboratory in Plant Biology, Ecology and Evolution: BIOHOPK 47 (Spr)
- Ecology of the Hawaiian Islands: BIO 116, EARTHSYS 116 (Aut)
- Plant Biology, Evolution, and Ecology: BIOHOPK 43 (Spr)
- Scientific Writing: BIOHOPK 330H (Win)

### STANFORD ADVISEES

**Doctoral Dissertation Reader (AC)**

Paul Bump, Richard Grewelle, Isabel Jones

**Postdoctoral Faculty Sponsor**

Brendan Cornwell

**Doctoral Dissertation Advisor (AC)**

Elora López, Nia Walker

**Doctoral (Program)**

Elora López, Nia Walker

### GRADUATE AND FELLOWSHIP PROGRAM AFFILIATIONS

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

## Publications

### PUBLICATIONS

- **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

- **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)
- **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., 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
- **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
- **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.
  2010; 23 (6): 1159-1169

- **COMPREHENSIVE PLANNING, DOMINANT-USE ZONES, AND USER RIGHTS: A NEW ERA IN OCEAN GOVERNANCE** *7th William R and Lenore Mote International Symposium in Fisheries Ecology*
  Sanchirico, J. N., Eagle, J., Palumbi, S., Thompson, B. H.
  ROSENSTIEL SCH MAR ATMOS SCI.2010: 273–85

- **Genetic Structure Among 50 Species of the Northeastern Pacific Rocky Intertidal Community** *PLOS ONE*
  Kelly, R. P., Palumbi, S. R.
  2010; 5 (1)

- **Restriction Site Tiling Analysis: accurate discovery and quantitative genotyping of genome-wide polymorphisms using nucleotide arrays** *GENOME BIOLOGY*
  Pespeni, M. H., Oliver, T. A., Manier, M. K., Palumbi, S. R.
  2010; 11 (4)

- **Whole-Genome Positive Selection and Habitat-Driven Evolution in a Shallow and a Deep-Sea Urchin** *GENOME BIOLOGY AND EVOLUTION*
  Oliver, T. A., Garfield, D. A., Manier, M. K., Haygood, R., Wray, G. A., Palumbi, S. R.
  2010; 2: 800-814

- **Are Antarctic minke whales unusually abundant because of 20th century whaling?** *MOLECULAR ECOLOGY*
  Ruegg, K. C., Anderson, E. C., Baker, C. S., Vant, M., Jackson, J. A., Palumbi, S. R.

2010; 19 (2): 281-291

- **Big and Slow: Phylogenetic Estimates of Molecular Evolution in Baleen Whales (Suborder Mysticeti)** *MOLECULAR BIOLOGY AND EVOLUTION*
  Jackson, J. A., Baker, C. S., Vant, M., Steel, D. J., Medrano-Gonzalez, L., Palumbi, S. R.
  2009; 26 (11): 2427-2440

- **Rebuilding Global Fisheries** *SCIENCE*
  Worm, B., Hilborn, R., Baum, J. K., Branch, T. A., Collie, J. S., Costello, C., Fogarty, M. J., Fulton, E. A., Hutchings, J. A., Jennings, S., Jensen, O. P., Lotze, H. K., Mace, et al
  2009; 325 (5940): 578-585

- **Managing for ocean biodiversity to sustain marine ecosystem services** *FRONTIERS IN ECOLOGY AND THE ENVIRONMENT*
  Palumbi, S. R., Sandifer, P. A., Allan, J. D., Beck, M. W., Fautin, D. G., Fogarty, M. J., Halpern, B. S., Incze, L. S., Leong, J., Norse, E., Stachowicz, J. J., Wall, D. H.
  2009; 7 (4): 204-211

- **Comparing Evolutionary Patterns and Variability in the Mitochondrial Control Region and Cytochrome b in Three Species of Baleen Whales** *JOURNAL OF MOLECULAR EVOLUTION*
  Alter, S. E., Palumbi, S. R.
  2009; 68 (1): 97-111

- **General-use polymerase chain reaction primers for amplification and direct sequencing of enolase, a single-copy nuclear gene, from different animal phyla** *MOLECULAR ECOLOGY RESOURCES*
  Kelly, R. P., Palumbi, S. R.
  2009; 9 (1): 144-147

- **Speciation and the evolution of gamete recognition genes: pattern and process** *HEREDITY*
  Palumbi, S. R.
  2009; 102 (1): 66-76

- **Mitochondrial and Nuclear Genetic Variation across Calving Lagoons in Eastern North Pacific Gray Whales (Eschrichtius robustus)** *JOURNAL OF HEREDITY*
  Alter, S. E., Ramirez, S. F., Nigenda, S., Ramirez, J. U., Bracho, L. R., Palumbi, S. R.
  2009; 100 (1): 34-46

- **Distributions of stress-resistant coral symbionts match environmental patterns at local but not regional scales** *MARINE ECOLOGY PROGRESS SERIES*
  Oliver, T. A., Palumbi, S. R.
  2009; 378: 93-103

- **Better Evolution Through Chemistry: Rapid Evolution Driven by Human Changes to the Chemical Environment** *Symposium on Chemical Evolution II held at the 235th ACS National Meeting*
  Palumbi, S. R.
  AMER CHEMICAL SOC.2009: 333–343

- **Intraspecific divergence in sperm morphology of the green sea urchin, Strongylocentrotus droebachiensis: implications for selection in broadcast spawners** *BMC EVOLUTIONARY BIOLOGY*
  Manier, M. K., Palumbi, S. R.
  2008; 8

- **An impediment to consumer choice: Overfished species are sold as Pacific red snapper** *BIOLOGICAL CONSERVATION*
  Logan, C. A., Alter, S. E., Haupt, A. J., Tomalty, K., Palumbi, S. R.
  2008; 141 (6): 1591-1599

- **The tip of the tail: molecular identification of seahorses for sale in apothecary shops and curio stores in California** *CONSERVATION GENETICS*
  Sanders, J. G., Cribbs, J. E., Fienberg, H. G., Hulburd, G. C., Katz, L. S., Palumbi, S. R.
  2008; 9 (1): 65-71

- **Sources of invasions of a northeastern Pacific acorn barnacle, Balanus glandula, in Japan and Argentina** *MARINE ECOLOGY PROGRESS SERIES*
  Geller, J., Sotka, E. E., Kado, R., Palumbi, S. R., Schwindt, E.
  2008; 358: 211-218

- **Ecosystems in action: Lessons from marine ecology about recovery, resistance, and reversibility** *BIOSCIENCE*
  Palumbi, S. R., McLeod, K. L., Grunbaum, D.
  2008; 58 (1): 33-42

- **DNA evidence for historic population size and past ecosystem impacts of gray whales** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
  Alter, S. E., Rynes, E., Palumbi, S. R.
  2007; 104 (38): 15162-15167

- **Response to comments on "Impacts of biodiversity loss on ocean ecosystem services"** *SCIENCE*
  Worm, B., Barbier, E. B., Beaumont, N., Duffy, J. E., Folke, C., Halpern, B. S., Jackson, J. B., Lotze, H. K., Micheli, F., Palumbi, S. R., Sala, E., Selkoe, K. A., Stachowicz, et al
  2007; 316 (5829): 1285-1286

- **Economic ecology - In the market for minke whales** *NATURE*
  Palumbi, S. R.
  2007; 447 (7142): 267-?

- **Restricted gene flow in the Caribbean staghorn coral Acropora cervicomis: Implications for the recovery of endangered reefs** *JOURNAL OF HEREDITY*
  Vollmer, S. V., Palumbi, S. R.
  2007; 98 (1): 40-50

- **Impacts of biodiversity loss on ocean ecosystem services** *SCIENCE*
  Worm, B., Barbier, E. B., Beaumont, N., Duffy, J. E., Folke, C., Halpern, B. S., Jackson, J. B., Lotze, H. K., Micheli, F., Palumbi, S. R., Sala, E., Selkoe, K. A., Stachowicz, et al
  2006; 314 (5800): 787-790

- **Comparative phylogeography of three codistributed stomatopods: Origins and timing of regional lineage diversification in the coral triangle** *EVOLUTION*
  Barber, P. H., Erdmann, M. V., Palumbi, S. R.
  2006; 60 (9): 1825-1839

- **Seascape genetics: A coupled oceanographic-genetic model predicts population structure of Caribbean corals** *CURRENT BIOLOGY*
  Galindo, H. M., Olson, D. B., Palumbi, S. R.
  2006; 16 (16): 1622-1626

- **The use of genetic clines to estimate dispersal distances of marine larvae** *ECOLOGY*
  Sotka, E. E., Palumbi, S. R.
  2006; 87 (5): 1094-1103

- **Coral gardens: Paternity and drug testing on the reef** *CURRENT BIOLOGY*
  Palumbi, S. R.
  2005; 15 (14): R544-R545

- **Evolutionary animation: How do molecular phylogenies compare to Mayr"s reconstruction of speciation patterns in the sea?** *Colloquium on Systematics and the Origin of Species*
  Palumbi, S. R., Lessios, H. A.
  NATL ACAD SCIENCES.2005: 6566–6572

- **Environmental science - Germ theory for ailing corals** *NATURE*
  Palumbi, S. R.
  2005; 434 (7034): 713-715

- **Ecological science and sustainability for the 21st century** *FRONTIERS IN ECOLOGY AND THE ENVIRONMENT*
  Palmer, M. A., Bernhardt, E. S., Chornesky, E. A., Collins, S. L., Dobson, A. P., Duke, C. S., Gold, B. D., Jacobson, R. B., Kingsland, S. E., Kranz, R. H., Mappin, M. J., Martinez, M. L., Micheli, et al
  2005; 3 (1): 4-11

- **Conspecific sperm precedence in two species of tropical sea urchins** *EVOLUTION*
  Geyer, L. B., Palumbi, S. R.
  2005; 59 (1): 97-105

- **Testing the utility of internally transcribed spacer sequences in coral phylogenetics** *MOLECULAR ECOLOGY*
  Vollmer, S. V., Palumbi, S. R.
  2004; 13 (9): 2763-2772

- **Fisheries science - Why mothers matter** *NATURE*
  Palumbi, S. R.
  2004; 430 (7000): 621-622

- **Strong genetic clines and geographical variation in gene flow in the rocky intertidal barnacle Balanus glandula** *MOLECULAR ECOLOGY*
  Sotka, E. E., Wares, J. P., Barth, J. A., Grosberg, R. K., Palumbi, S. R.
  2004; 13 (8): 2143-2156

- **Gene expression and feeding ecology: evolution of piscivory in the venomous gastropod genus Conus** *PROCEEDINGS OF THE ROYAL SOCIETY B-BIOLOGICAL SCIENCES*
  Duda, T. F., Palumbi, S. R.
  2004; 271 (1544): 1165-1174

- **Ecology for a crowded planet** *SCIENCE*
  Palmer, M., Bernhardt, E., Chornesky, E., Collins, S., Dobson, A., Duke, C., Gold, B., Jacobson, R., Kingsland, S., Kranz, R., Mappin, M., Martinez, M. L., Micheli, et al
  2004; 304 (5675): 1251-1252

- **Marine reserves and ocean neighborhoods: The spatial scale of marine populations and their management** *ANNUAL REVIEW OF ENVIRONMENT AND RESOURCES*
  Palumbi, S. R.
  2004; 29: 31-68

- **Marine reserves: the best option for our oceans?** *FRONTIERS IN ECOLOGY AND THE ENVIRONMENT*
  Norse, E. A., Grimes, C. B., Ralston, S., Hilborn, R., CASTILLA, J. C., Palumbi, S. R., Fraser, D., Kareiva, P.
  2003; 1 (9): 495-502

- **Ecological subsidies alter the structure of marine communities** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
  Palumbi, S. R.
  2003; 100 (21): 11927-11928

- **Recent speciation in the Indo-West Pacific: rapid evolution of gamete recognition and sperm morphology in cryptic species of sea urchin** *PROCEEDINGS OF THE ROYAL SOCIETY B-BIOLOGICAL SCIENCES*
  Landry, C., Geyer, L. B., Arakaki, Y., Uehara, T., Palumbi, S. R.
  2003; 270 (1526): 1839-1847

- **Climate change, human impacts, and the resilience of coral reefs** *SCIENCE*
  Hughes, T. P., Baird, A. H., Bellwood, D. R., Card, M., Connolly, S. R., Folke, C., Grosberg, R., Hoegh-Guldberg, O., Jackson, J. B., Kleypas, J., Lough, J. M., Marshall, P., Nystrom, et al
  2003; 301 (5635): 929-933

- **Genome size evolution in pufferfish: A comparative analysis of diodontid and tetraodontid pufferfish genomes** *GENOME RESEARCH*
  Neafsey, D. E., Palumbi, S. R.
  2003; 13 (5): 821-830

- **Reproductive character displacement and the genetics of gamete recognition in tropical sea urchins** *EVOLUTION*
  Geyer, L. B., Palumbi, S. R.
  2003; 57 (5): 1049-1060

- **New wave: high-tech tools to help marine reserve research** *FRONTIERS IN ECOLOGY AND THE ENVIRONMENT*
  Palumbi, S. R., Gaines, S. D., Leslie, H., Warner, R. R.
  2003; 1 (2): 73-79

- **Population genetics, demographic connectivity, and the design of marine reserves** *ECOLOGICAL APPLICATIONS*
  Palumbi, S. R.

2003; 13 (1): S146-S158

- **Why gobies are like hobbits** *SCIENCE*
  Palumbi, S. R., Warner, R. R.
  2003; 299 (5603): 51-52

- **Characterization of microsatellite loci for the Argentine ant, Linepithema humile, and their potential for analysis of colony structure in invading Hawaiian populations** *MOLECULAR ECOLOGY NOTES*
  Ingram, K. K., Palumbi, S. R.
  2002; 2 (2): 94-95