

# Dr. Steve Weisberg

Executive Director

Administration

Southern California Coastal Water Research Project

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## Education

Ph.D., biology, University of Delaware, 1981

B.G.S., University of Michigan, 1974

## Professional Experience

Executive Director, Southern California Coastal Water Research Project Authority. Costa Mesa, CA. 1996-present

Manager, Monitoring and Field Operations, Versar, Inc. Columbia, MD. 1987-1996

Scientist, Martin Marietta Environmental Systems. Baltimore, MD. 1981-1987

Visiting Assistant Professor, West Chester State University. West Chester, PA. 1980

Research Assistant, University of Delaware. Newark, DE. 1978-1981

Teaching Assistant, University of Delaware. Newark, DE. 1976-1977

Hydrologic Field Assistant, US Geological Survey. Doraville, GA. 1975

Tour Guide, University of Michigan Museum of Natural History. Ann Arbor, MI. 1973-1974

## Honors and Awards

US Environmental Protection Agency Level II Scientific and Technological Achievement Award, 2013

US Department of the Interior Partners in Conservation Award, 2012 University of Delaware

Distinguished Alumnus Award 2006  
Tibor T. Polgar Award for Research Excellence 1990  
Delaware Sea Grant Award for Outstanding Doctoral Research 1981  
Best Student Paper Award - Atlantic Estuarine Research Society 1981  
Dean's List, University of Michigan 1972, 1973  
Sigma Xi  
Who's Who Among High School Students

## Professional Appointments

NOAA Science Advisory Board (2021-Present)  
US EPA Board of Scientific Counselors Safe and Sustainable Water Resources Committee (2018-Present)  
Water Research Foundation's Microplastics in Water Advisory Committee (2020-Present)  
University of Delaware College of Earth, Ocean and Environment Dean's Advisory Council (2020-Present)  
NOAA Pacific Marine Environmental Laboratory Scientific Review Panel (2020)  
California Ocean Acidification Task Force (Chair 2018-Present)  
California Ocean Protection Council Scientific Advisory Team (2008-Present; Co-Chair 2009)  
California Ocean Protection Council's Acidification and Hypoxia Science Panel (2013-Present)  
California Current Acidification Network Steering Committee (Chair, 2013-Present)  
California Water Quality Monitoring Council (2008-Present)  
California Sea Grant Advisory Board (2011-Present)  
University of Southern California Sea Grant Advisory Board (1998-Present)  
California Clean Beach Task Force (2001-Present)  
Standard Methods Committee - Biological Examination, American Water Works Association (2012-Present)  
Ocean Acidification International Reference User Group, Ocean Acidification International Coordination Centre (2013-Present)  
National Association of Marine Laboratories Board of Directors (2014- Present)  
Western Association of Marine Laboratories Board of Directors (2013-Present, President 2015-Present)  
Chapman University School of Earth and Environmental Science Advisory Council (2013-2015)  
California Ocean Science Trust Governing Board (2007-2014; Chair 2009-2011)  
NOAA Science Advisory Board Ocean and Human Health Workgroup (Chair, 2009-2010)  
US EPA Board of Scientific Counselors Water Quality Committee (2006-2009)  
US EPA Science Advisory Board Report on the Environment Committee (2010)  
Hollings Marine Laboratory Scientific Advisory Committee (Chair, 2011-2012)  
California South Coast Marine Life Protection Act Science Advisory Team (2008-2009)  
Alliance for Coastal Technologies Governing Board (Chair, 2010-2012)

Alliance for Coastal Technologies Stakeholders Council (2001-2009)  
Ocean Research and Resources Advisory Panel (2003-2007; Vice-chair 2005-2007)  
Ocean Research and Resources Advisory Panel - Ocean Observations Committee (2008-2010)  
National Science and Technology Council Joint Subcommittee on Ocean Science and Technology (Ex-officio 2005-2007)  
US Global Ocean Observing System Steering Committee (1998-2006; Vice-Chair 2003-2006)  
Hollings Marine Laboratory Oceans and Human Health Scientific Advisory Committee (2004)  
Center for Integrated Coastal Observation, Research and Education Advisory Council (2003-2006)  
Southern California Wetlands Recovery Program Science Advisory Panel (1999-2005; Chair 1999-2003)  
Southern California Coastal Ocean Observing System Governing Board (2005-Present)  
Southern California Regional Monitoring Steering Committee (Co-chair 1993-1997; Chair 1997-Present)  
Carolinas Coastal Ocean Observing and Predicting System Scientific Advisory Committee (Chair 2003-2005)  
San Francisco Estuary Institute Ecological Effects Review Panel (2007-Present)  
San Francisco Estuary Institute Regional Monitoring Program Review Panel (2003)  
National Academy of Sciences Indicators of Waterborne Pathogens Panel (2002-2004)  
Heinz Center State of the Nation's Ecosystems Coasts and Oceans Workgroup (1999-2002)  
Center for Environmental Analysis External Advisory Board (2003-2005)  
Adjunct Professor, California State University, Long Beach (1997-2000)  
Adjunct Associate Professor, University of Maryland (1986-1995)  
Ohio River Basin Commission Committee on Hydroelectric Licensing and Legislation (1983)  
Interstate Commission for the Potomac River Basin Instream Flow Committee (1983-1986)  
National Estuary Program Technical Advisory Committees:  
Delaware Estuary Program (1993-1996)  
New York/New Jersey Harbor Estuary Program (1994-1996)  
Santa Monica Bay Restoration Program (1996-2002)

## Journal Articles

Mehinto, A.C., S. Coffin, A.A. Koelmans, S.M. Brander, M. Wagner, L.M. Thornton Hampton, A.G. Burton, E. Miller, T. Gouin, S.B. Weisberg, C.M. Rochman. 2022. Risk-based management framework for microplastics in aquatic ecosystems. *Microplastics and Nanoplastics* 2:17.

Wade, T.J., B.F. Arnold, K.C. Schiff, J.M. Colford Jr, S.B. Weisberg, J.F. Griffith, A.P. Dufour. 2022. Health risks to children from exposure to fecally-contaminated recreational water. *PLOS One* DOI:10.1371/journal.pone.0266749.

Coffin, S., S.B. Weisberg. 2022. Understanding health effects pathways and thresholds: filling a critical need to support microplastics management. *Microplastics and Nanoplastics* 2:11.

De Frond, H., L.M. Thornton Hampton, S. Kotar, K. Gesulga, C. Matuch, W. Lao, S.B. Weisberg, C.S. Wong, C.M. Rochman . 2022. Monitoring microplastics in drinking water: An interlaboratory study to inform effective methods for quantifying and characterizing microplastics. *Chemosphere* 298:134282.

Zimmer-Faust, A.G., J.F. Griffith, J.A. Steele, L. Asato, T. Chiem, S. Choi, A. Diaz, J. Guzman, M. Padilla, J. Quach-Cu, V. Ruiz, B. Santos, M. Woo, S.B. Weisberg. 2022. Assessing cross-laboratory performance for quantifying coliphage using EPA Method 1642. *Journal of Applied Microbiology* 00:1-9.

Bednarsek, N., R. Ambrose, P. Calosi, R.K. Childers, R.A. Feely, S.Y. Litvin, W.C. Long, J.I. Spicer, J. Strus, J. Taylor, F. Kessouri, M. Roethler, M. Sutula, S.B. Weisberg. 2021. Synthesis of Thresholds of Ocean Acidification Impacts on Decapods. *Frontiers in Marine Science* 8:651102.

McLaughlin, K., M.D.A. Howard, G. Robertson, C.D.A. Beck, M. Ho, F. Kessouri, N.P. Nezlin, M. Sutula, S.B. Weisberg. 2021. Influence of anthropogenic nutrient inputs on rates of coastal ocean nitrogen and carbon cycling in the Southern California Bight, United States. *Elementa: Science of the Anthropocene* 9:00145.

Kessouri, F., J.C. McWilliams, D. Bianchi, M. Sutula, L. Renault, C. Deutsch, R.A. Feely, K. McLaughlin, M. Ho, E.M. Howard, N. Bednarsek, P. Damien, J. Molemaker, S.B. Weisberg. 2021. Coastal eutrophication drives acidification, oxygen loss, and ecosystem change in a major oceanic upwelling system. *Proceedings of the National Academy of Sciences of the United States of America* DOI:10.1073/pnas.2018856118.

Bednarsek, N., P. Calosi, R.A. Feely, R.F. Ambrose, M. Byrne, K.Y. Chan, S. Dupont, J.L. Padilla-Gamino, J.I. Spicer, F. Kessouri, M. Roethler, M. Sutula, S.B. Weisberg. 2021. Synthesis of Thresholds of Ocean Acidification Impacts on Echinoderms. *Frontiers in Marine Science* DOI:10.3389/fmars.2021.602601.

Rochman, C.M., S.B. Weisberg, S.L. Moore, A. Whitley. 2020. The Unknowns of Microplastics: We cannot understand what we cannot measure. *Applied Spectroscopy* 74:966-967.

Wyer, H., D. Polhemus, S.L. Moore, S.B. Weisberg, S. Coffin, C.M. Rochman. 2020. Steps Scientists Can Take to Inform Aquatic Microplastics Management: A Perspective Informed by the California Experience. *Applied Spectroscopy* 74:971-975.

DeFlorio-Barker, S., D. Holman, R. Landolfi, B.F. Arnold, J.M. Colford, S.B. Weisberg, K.C. Schiff, E.A. Sams, T.J. Wade. 2020. Incidence and public health burden of sunburn among beachgoers in

the United States. *Preventive Medicine* DOI:10.1016/j.ypmed.2020.106047.

Nezlin, N.P., C. Beegan, A. Feit, J.R. Gully, A. Latker, K. McLaughlin, M.J. Mengel, G.L. Robertson, A. Steele, S.B. Weisberg. 2020. Colored Dissolved Organic Matter (CDOM) as a tracer of effluent plumes in the coastal ocean. *Regional Studies in Marine Science* DOI:10.1016/j.rsma.2020.101163.

Bednarsek, N., R.A. Feely, E.L. Howes, B.P.V. Hunt, F. Kessouri, P. Leon, R. Lischka, A.E. Maas, K. McLaughlin, N.P. Nezlin, M. Sutula, S.B. Weisberg. 2019. Systematic Review and Meta-Analysis Toward Synthesis of Thresholds of Ocean Acidification Impacts on Calcifying Pteropods and Interactions With Warming. *Frontiers in Marine Science* 6:227.

McLaughlin, K., N.P. Nezlin, S.B. Weisberg, A.G. Dickson, J.A.T. Booth, C.L. Cash, A. Feit, J.R. Gully, M.D.A. Howard, S. Johnson, A. Latker, M.J. Mengel, G.L. Robertson, A. Steele, L. Terriquez. 2018. Seasonal patterns in aragonite saturation state on the southern California continental shelf. *Continental Shelf Research* 167:77-86.

Pelletier, M.C., D.J. Gillett, A. Hamilton, T. Grayson, V. Hansen, E.W. Leppo, S.B. Weisberg, A. Borja. 2018. Adaptation and application of multivariate AMBI (M-AMBI) in US coastal waters. *Ecological Indicators* 89:818-827.

Saarman, E.T., B. Owens, S.N. Murray, S.B. Weisberg, R.F. Ambrose, J.C. Field, K.J. Nielsen, M.H. Carr. 2018. An Ecological Framework for Informing Permitting Decisions on Scientific Activities in Protected Areas. *Ecological Applications* 13:e0199126.

Nezlin, N.P., K. McLaughlin, J.A.T. Booth, C.L. Cash, D.W. Diehl, K.A. Davis, A. Feit, R. Goericke, J.R. Gully, M.D.A. Howard, S. Johnson, A. Latker, M.J. Mengel, G.L. Robertson, A. Steele, L. Terriquez, L. Washburn, S.B. Weisberg. 2018. Spatial and Temporal Patterns of Chlorophyll Concentration in the Southern California Bight. *Journal of Geophysical Research: Oceans* 123:231-245.

Arnold, B.F., K.C. Schiff, A. Ercumen, J. Benjamin-Chung, J.A. Steele, J.F. Griffith, S.J. Steinberg, P.D. Smith, C.D. McGee, R. Wilson, C. Nelsen, S.B. Weisberg, J.M. Colford Jr. 2017. Acute Illness Among Surfers After Exposure to Seawater in Dry- and Wet-Weather Conditions. *American Journal of Epidemiology* 186:866-875.

Cao, Y., M.R. Raith, P.D. Smith, J.F. Griffith, S.B. Weisberg, A. Schriewer, A. Sheldon, C. Crompton, G.G. Amenu, J. Gregory, J. Guzman, K.D. Goodwin, L. Othman, M. Manasjan, S. Choi, S. Rapoport, S. Steele, T. Nguyen, X. Yu. 2017. Regional Assessment of Human Fecal Contamination in Southern California Coastal Drainages. *International Journal of Environmental Research and Public Health* 14:874.

- Benjamin-Chung, J., B.F. Arnold, T.J. Wade, K.C. Schiff, J.F. Griffith, A.P. Dufour, S.B. Weisberg, J.M. Colford Jr. 2017. Coliphages and gastrointestinal illness in recreational waters: pooled analysis of six coastal beach cohorts. *Epidemiology* 28:644-652.
- McLaughlin, K., N.P. Nezlin, S.B. Weisberg, A.G. Dickson, J.A. Booth, C.L. Cash, A. Feit, J.R. Gully, S. Johnson, A. Latker, M.J. Mengel, G.L. Robertson, A. Steele, L. Terriquez. 2017. An evaluation of potentiometric pH sensors in coastal monitoring applications. *Limnology and Oceanography: Methods* 15:679-689.
- McLaughlin, K., A. Dickson, S.B. Weisberg, K. Coale, V. Elrod, C. Hunter, K.S. Johnson, S. Kram, R. Kudela, T. Martz, K. Negrey, U. Passow, F. Shaughnessy, J.E. Smith, D. Tadesse, L. Washburn, K.R. Weis. 2017. An evaluation of ISFET sensors for coastal pH monitoring applications. *Regional Studies in Marine Science* 12:11-18.
- Cao, Y., M. Sivaganesan, C.A. Kelty, D. Wang, A. Boehm, J.F. Griffith, S.B. Weisberg, O.C. Shanks. 2017. A human fecal contamination score for ranking recreational sites using the HF183/BacR287 quantitative real-time PCR method. *Water Research* 128:148-156.
- Bednarsek, N., T. Klinger, C.J. Harvey, S.B. Weisberg, R.M. McCabe, R.A. Feely, J. Newton, N. Tolimieri. 2017. New ocean, new needs: Application of pteropod shell dissolution as a biological indicator for marine resource management. *Ecological Indicators* 76:240-244.
- DeFlorio-Barker, S., B.F. Arnold, E.A. Sams, A.P. Dufour, J.M. Colford Jr, S.B. Weisberg, K.C. Schiff, T.J. Wade. 2017. Child environmental exposures to water and sand at the beach: Findings from studies of over 68,000 subjects at 12 beaches. *Journal of Exposure Science and Environmental Epidemiology* DOI:10.1038/jes.2017.23.
- Haugland, R.A., S. Sieftring, M. Varma, K.H. Oshima, M. Sivaganesan, Y. Cao, M.R. Raith, J.F. Griffith, S.B. Weisberg, R.T. Noble, A.D. Blackwood, J. Kinzelman, T. Anan'eva, R.N. Bushon, E.A. Stelzer, V.J. Harwood, K.V. Gordon, C. Sinigalliano. 2016. Multi-laboratory survey of qPCR enterococci analysis method performance in U.S. coastal and inland surface waters. *Journal of Microbiological Methods* 123:114-125.
- Ferguson, D.M., G.N. Talavera, L.A.R. Hernandez, S.B. Weisberg, R.F. Ambrose, J.A. Jay. 2016. Virulence Genes among Enterococcus faecalis and Enterococcus faecium Isolated from Coastal Beaches and Human and Nonhuman Sources in Southern California and Puerto Rico. *Journal of Pathogens* 2016:1-7.
- Ferguson, D.M., S.B. Weisberg, C. Hagedorn, K. De Leon, V. Mofidi, J. Wolfe, M. Zimmerman, J.A. Jay. 2016. Enterococcus growth on eelgrass (Zostera marina); implications for water quality. *FEMS Microbiology Ecology* 92:1-7.

Arnold, B.F., T.J. Wade, J. Benjamin-Chung, K.C. Schiff, J.F. Griffith, A.P. Dufour, S.B. Weisberg, J.M. Colford Jr. 2016. Acute Gastroenteritis and Recreational Water: Highest Burden Among Young US Children. *American Journal of Public Health* 9:1690-1697.

Griffith, J.F., S.B. Weisberg, B.F. Arnold, Y. Cao, K.C. Schiff, J.M. Colford Jr. 2016. Epidemiologic evaluation of multiple alternate microbial water quality monitoring indicators at three California beaches. *Water Research* 94:371-381.

Weisberg, S.B., N. Bednarsek, R.A. Feely, F. Chan, A.B. Boehm, M. Sutula, J.L. Ruesink, B. Hales, J.L. Largier, J.A. Newton. 2016. Water quality criteria for an acidifying ocean: Challenges and opportunities for improvement. *Ocean and Coastal Management* 126:31-41.

Scott, G.I., D.E. Porter, R.S. Norman, C.H. Scott, M.I. Uyaguari-Diaz, K.A. Maruya, S.B. Weisberg, M.H. Fulton, E.F. Wirth, J. Moore, P.L. Pennington, D. Schlenk, G.P. Cobb, N.D. Denslow. 2016. Antibiotics as CECs: An Overview of the Hazards Posed by Antibiotics and Antibiotic Resistance. *Frontiers in Marine Science* 3:1-15.

Nezlin, N.P., J.A.T. Booth, C. Beegan, C.L. Cash, J.R. Gully, A. Latker, M.J. Mengel, G.L. Robertson, A. Steele, S.B. Weisberg. 2016. Assessment of wastewater impact on dissolved oxygen around southern California's submerged ocean outfalls. *Regional Studies in Marine Science* 7:177-184.

Gillett, D.J., S.B. Weisberg, T. Grayson, A. Hamilton, V. Hansen, E.W. Leppo, M.C. Pelletier, A. Borja, D. Cadien, D. Dauer, R. Diaz, M. Dutch, J.L. Hyland, M. Kellogg, P.F. Larsen, J.S. Levinton, R. Llanso, L.L. Lovell, P.A. Montagna, D. Pasko, C.A. Phillips, C. Rakocinski, J.A. Ranasinghe, D.M. Sanger, H. Teixeira, R.F. Van Dolah, R.G. Velarde, K.I. Welch. 2015. Effect of ecological group classification schemes on performance of the AMBI benthic index in US coastal waters. *Ecological Indicators* 50:99-107.

McLaughlin, K., S.B. Weisberg, A.G. Dickson, G.E. Hofmann, J.A. Newton, D. Aseltine-Neilson, A. Barton, S. Cudd, R.A. Feely, I.W. Jefferds, E.B. Jewett, T. King, C.J. Langdon, S. McAfee, D. Pleschner-Steele, B. Steele. 2015. Core principles of the California Current Acidification Network: Linking chemistry, physics, and ecological effects. *Oceanography* 28:160-169.

Barton, A., G.G. Waldbusser, R.A. Feely, S.B. Weisberg, J.A. Newton, B. Hales, S. Cudd, B. Eudeline, C.J. Langdon, I. Jefferds, T. King, A. Suhrbier, K. McLaughlin. 2015. Impacts of coastal acidification on the Pacific Northwest shellfish industry and adaptation strategies implemented in response. *Oceanography* 28:146-159.

Murray, S.N., S.B. Weisberg, P.T. Raimondi, R.F. Ambrose, C.A. Bell, C.A. Blanchette, J.L. Burnaford, M.N. Dethier, J.M. Engle, M.S. Foster, C.M. Miner, K.J. Nielsen, J.S. Pearse, D.V. Richards, J.R. Smith. 2015. Evaluating ecological states of rocky intertidal communities: A Best Professional Judgment exercise. *Ecological Indicators* 60:802-814.

- Maruya, K.A., N.G. Dodder, A.C. Mehinto, N.D. Denslow, D. Schlenk, S.A. Snyder, S.B. Weisberg. 2015. A Tiered, Integrated Biological and Chemical Monitoring Framework for Contaminants of Emerging Concern in Aquatic Ecosystems. *Integrated Environmental Assessment and Management* 12:540-547.
- Cooley, S.R., E.B. Jewett, J. Reichert, L. Robbins, G. Shrestha, D. Wiczorek, S.B. Weisberg. 2015. Getting ocean acidification on decision makers' to-do lists: Dissecting the process through case studies. *Oceanography* 28:198-211.
- Boehm, A.B., M.Z. Jacobson, M.J. O'Donnell, M. Sutula, W.W. Wakefield, S.B. Weisberg, E. Whiteman. 2015. Ocean acidification science needs for natural resource managers of the North American west coast. *Oceanography* 28:170-181.
- Booth, J.A.T., C.B. Woodson, M. Sutula, F. Micheli, S.B. Weisberg, S.J. Bograd, A. Steele, J. Schoen, L.B. Crowder. 2014. Patterns and potential drivers of declining oxygen content along the Southern California coast. *Limnology and Oceanography* 59:1127-1138.
- Yau, V.M., K.C. Schiff, B.F. Arnold, J.F. Griffith, J.S. Gruber, C.C. Wright, T.J. Wade, S. Burns, J.M. Hayes, C. McGee, M. Gold, Y. Cao, A.B. Boehm, S.B. Weisberg, J.M. Colford Jr. 2014. Effect of submarine groundwater discharge on bacterial indicators and swimmer health at Avalon Beach, CA, USA. *Water Research* 59:23-36.
- Riedel, T.E., A.G. Zimmer-Faust, V. Thulsiraj, T. Madi, K.T. Hanley, D.L. Ebentier, M. Byappanahalli, B. Layton, M.R. Raith, A.B. Boehm, J.F. Griffith, P.A. Holden, O.C. Shanks, S.B. Weisberg, J.A. Jay. 2014. Detection limits and cost comparisons of human-and gull-associated conventional and quantitative PCR assays in artificial and environmental waters. *Journal of Environmental Management* 136:112-120.
- Maruya, K.A., N.G. Dodder, S.B. Weisberg, D. Gregorio, J.S. Bishop, S. Klosterhaus, D.A. Alvarez, E.T. Furlong, S. Bricker, K.L. Kimbrough, G.G. Lauenstein. 2014. The mussel watch California pilot study on contaminants of emerging concern (CECs): Synthesis and next steps. *Marine Pollution Bulletin* 81:355-363.
- Maruya, K.A., N.G. Dodder, R.A. Schaffner, S.B. Weisberg, D. Gregorio, S. Klosterhaus, D.A. Alvarez, E.T. Furlong, K.L. Kimbrough, G.G. Lauenstein, J.D. Christensen. 2014. Refocusing mussel watch on contaminants of emerging concern (CECs): The California pilot study (2009-10). *Marine Pollution Bulletin* 81:334-339.
- Bourlat, S.J., A. Borja, J. Gilbert, M.I. Taylor, N. Davies, S.B. Weisberg, J.F. Griffith, T. Lettieri, D. Field, J. Benzie, F.O. Glockner, N. Rodriguez-Ezpeleta, D.P. Faith, T.P. Bean, M. Obst. 2013. Genomics in marine monitoring: New opportunities for assessing marine health status. *Marine Pollution Bulletin* 74:19-31.



Ferguson, D.M., J.F. Griffith, C.D. McGee, S.B. Weisberg, C. Hagedorn. 2013. Comparison of Enterococcus species diversity in marine water and wastewater using enterolert and EPA method 1600. *Journal of Environmental and Public Health* 2013:11-16.

Ervin, J.S., T.L. Russell, B.A. Layton, K.M. Yamahara, D. Wang, L.M. Sassoubre, Y. Cao, C.A. Kelty, M. Sivaganesan, A.B. Boehm, P.A. Holden, S.B. Weisberg, O.C. Shanks. 2013. Characterization of fecal concentrations in human and other animal sources by physical, culture-based, and quantitative real-time PCR methods. *Water Research* 47:6873-6882.

Boehm, A.B., L.C. Van De Werfhorst, J.F. Griffith, P.A. Holden, J.A. Jay, O.C. Shanks, D. Wanga, S.B. Weisberg. 2013. Performance of forty-one microbial source tracking methods: A twenty-seven lab evaluation study. *Water Research* 47:6812-6828.

Thompson, B., J.A. Ranasinghe, S. Lowe, A. Melwani, S.B. Weisberg. 2013. Benthic macrofaunal assemblages of the San Francisco Estuary and Delta, USA. *Environmental Monitoring and Assessment* 185:2281-2295.

Stewart, J.R., A.B. Boehm, E.A. Dubinsky, T.-T. Fong, K.D. Goodwin, J.F. Griffith, R.T. Noble, O.C. Shanks, K. Vijayavel, S.B. Weisberg. 2013. Recommendations following a multi-laboratory comparison of microbial source tracking methods. *Water Research* 47:6829-6838.

Raith, M.R., D.L. Ebentier, Y. Cao, J.F. Griffith, S.B. Weisberg. 2013. Factors affecting the relationship between quantitative polymerase chain reaction (qPCR) and culture-based enumeration of Enterococcus in environmental waters. *Journal of Applied Microbiology* 116:737-746.

Cao, Y., C. Hagedorn, O.C. Shanks, D. Wang, J. Ervin, J.F. Griffith, B.A. Layton, C.D. McGee, T.E. Riedel, S.B. Weisberg. 2013. Towards establishing a human fecal contamination index in microbial source tracking. *International Journal of Chemical and Environmental Engineering Systems* 4:46-58.

Cao, Y., M. Sivaganesan, J. Kinzelman, A.D. Blackwood, R.T. Noble, R.A. Haugland, J.F. Griffith, S.B. Weisberg. 2013. Effect of platform, reference material, and quantification model on enumeration of Enterococcus by quantitative PCR methods. *Water Research* 47:233-241.

Arnold, B.F., K.C. Schiff, J.F. Griffith, J.S. Gruber, V. Yau, C.C. Wright, T.J. Wade, S. Burns, J.M. Hayes, C. McGee, M. Gold, Y. Cao, S.B. Weisberg, J.M. Colford Jr. 2013. Swimmer illness associated with marine water exposure and water quality indicators: Impact of widely used assumptions. *Epidemiology* 24:845-853.

Shanks, O.C., M. Sivaganesan, L. Peed, C.A. Kelty, A.D. Blackwood, M.R. Greene, R.T. Noble, R.N. Bushon, E.A. Stelzer, J. Kinzelman, T. Anan'eva, C. Sinigalliano, D. Wanless, J.F. Griffith, Y. Cao,

- S.B. Weisberg, V.J. Harwood, C. Staley, K.H. Oshima, M. Varma, R.A. Haugland. 2012. Interlaboratory comparison of real-time PCR protocols for quantification of general fecal indicator bacteria. *Environmental Science and Technology* 46:945-953.
- Colford Jr, J.M., K.C. Schiff, J.F. Griffith, V. Yau, B.F. Arnold, C.C. Wright, J.S. Gruber, T.J. Wade, S. Burns, J. Hayes, C. McGee, M. Gold, Y. Cao, R.T. Noble, R. Haugland, S.B. Weisberg. 2012. Using rapid indicators for Enterococcus to assess the risk of illness after exposure to urban runoff contaminated marine water. *Water Research* 46:2176-2186.
- Ranasinghe, J.A., K.I. Welch, P.N. Slattery, D.E. Montagne, D.D. Huff, H. Lee II, J.L. Hyland, B. Thompson, S.B. Weisberg, J.M. Oakden, D.B. Cadien, R.G. Velarde. 2012. Habitat-related benthic macrofaunal assemblages of bays and estuaries of the western United States. *Integrated Environmental Assessment and Management* 8:638-648.
- Thompson, B., S.B. Weisberg, A. Melwani, S. Lowe, J.A. Ranasinghe, D.B. Cadien, D.M. Dauer, R.J. Diaz, W. Fields, M. Kellogg, D.E. Montagne, P.R. Ode, D.J. Reish, P.N. Slattery. 2012. Low levels of agreement among experts using best professional judgment to assess benthic condition in the San Francisco Estuary and Delta. *Ecological Indicators* 12:167-173.
- Hammerstrom, K.K., J.A. Ranasinghe, S.B. Weisberg, J.S. Oliver, W.R. Fairey, P.N. Slattery, J.M. Oakden. 2012. Effect of sample area and sieve size on benthic macrofaunal community condition assessments in California enclosed bays and estuaries. *Integrated Environmental Assessment and Management* 8:649-658.
- Teixeira, H., S.B. Weisberg, A. Borja, J.A. Ranasinghe, D.B. Cadien, R.G. Velarde, L.L. Lovell, D. Pasko, C.A. Phillips, D.E. Montagne, K.J. Ritter, F. Salas, J.C. Marques. 2012. Calibration and validation of the AZTI's Marine Biotic Index (AMBI) for Southern California marine bays. *Ecological Indicators* 12:84-95.
- Gillett, D.J., D.J. Pondella II, J. Freiwald, K.C. Schiff, J.E. Caselle, C. Shuman, S.B. Weisberg. 2012. Comparing volunteer and professionally collected monitoring data from the rocky subtidal reefs of Southern California, USA. *Environmental Monitoring and Assessment* 184:3239-3257.
- Ranasinghe, J.A., E.D. Stein, P.E. Miller, S.B. Weisberg. 2012. Performance of two southern California benthic community condition indices using species abundance and presence-only data: Relevance to DNA barcoding. *PLoS ONE* 7:e40875.
- Converse, R.R., J.F. Griffith, R.T. Noble, R.A. Haugland, K.C. Schiff, S.B. Weisberg. 2012. Correlation between quantitative polymerase chain reaction and culture-based methods for measuring Enterococcus over various temporal scales and three California marine beaches. *Applied and Environmental Microbiology* 78:1237-1242.

Bay, S.M., S.B. Weisberg. 2012. Framework for interpreting sediment quality triad data. *Integrated Environmental Assessment and Management* 8:589-596.

Cao, Y., J.F. Griffith, S. Dorevitch, S.B. Weisberg. 2012. Effectiveness of qPCR permutations, internal controls and dilution as means for minimizing the impact of inhibition while measuring Enterococcus in environmental waters. *Journal of Applied Microbiology* 113:66-75.

Griffith, J.F., S.B. Weisberg. 2011. Challenges in implementing new technology for beach water quality monitoring: Lessons from a California demonstration project. *Marine Technology Society Journal* 45:65-73.

Cao, Y., C.D. McGee, J.F. Griffith, S.B. Weisberg. 2011. Method repeatability for measuring Enterococcus in southern California beach sands. *Letters in Applied Microbiology* 53:656-659.

Teixeira, H., A. Borja, S.B. Weisberg, J.A. Ranasinghe, D.B. Cadien, D.M. Dauer, J.-C. Dauvin, S. Degraer, R.J. Diaz, A. Gremare, I. Karakassis, R.J. Llanso, L.L. Lovell, J.C. Marques, D.E. Montagne, A. Occhipinti-Ambrogi, R. Rosenberg, R. Sarda, L.C. Schaffner, R.G. Velarde. 2010. Assessing coastal benthic macrofauna community condition using best professional judgement - Developing consensus across North America and Europe. *Marine Pollution Bulletin* 60:589-600.

Noble, R.T., A.D. Blackwood, J.F. Griffith, C.D. McGee, S.B. Weisberg. 2010. Comparison of rapid quantitative PCR-based and conventional culture-based methods for enumeration of Enterococcus spp. and Escherichia coli in recreational waters. *Applied and Environmental Microbiology* 76:7437-7443.

Boehm, A.B., N.J. Ashbolt, J.M. Colford, J.r. , L.E. Dunbar, L.E. Fleming, M.A. Gold, J.A. Hansel, P.R. Hunter, A.M. Ichida, C.D. McGee, J.A. Soller, S.B. Weisberg. 2009. A sea change ahead for recreational water quality criteria. *Journal of Water and Health* 7:9-20.

Boehm, A.B., J.F. Griffith, C.D. McGee, T.A. Edge, H.M. Solo-Gabriele, R. Whitman, Y. Cao, M. Getrich, J.A. Jay, D. Ferguson, K.D. Goodwin, C.M. Lee, M. Madison, S.B. Weisberg. 2009. Fecal indicator bacteria enumeration in beach sand: A comparison study of FIB extraction methods in medium to coarse sands. *Journal of Applied Microbiology* 107:1740-1750.

Ranasinghe, J.A., S.B. Weisberg, R.W. Smith, D.E. Montagne, B. Thompson, J.M. Oakden, D.D. Huff, D.B. Cadien, R.G. Velarde, K.J. Ritter. 2009. Calibration and evaluation of five indicators of benthic community condition in two California bay and estuary habitats. *Marine Pollution Bulletin* 59:5-13.

Borja, A., A. Ranasinghe, S.B. Weisberg. 2009. Assessing ecological integrity in marine waters, using multiple indices and ecosystem components: Challenges for the future. *Marine Pollution Bulletin* 59:1-4.

Hagedorn, C., S.B. Weisberg. 2009. Chemical-based fecal source tracking methods: current status and guidelines for evaluation. *Reviews in Environmental Science and Biotechnology* 8:275-287.

Griffith, J.F., Y. Cao, C.D. McGee, S.B. Weisberg. 2009. Evaluation of rapid methods and novel indicators for assessing microbiological beach water quality. *Water Research* 43:4900-4907.

Cao, Y., J.F. Griffith, S.B. Weisberg. 2009. Evaluation of optical brightener photodecay characteristics for detection of human fecal contamination. *Water Research* 43:2273-2279.

Weisberg, S.B., B. Thompson, J.A. Ranasinghe, D.E. Montagne, D.B. Cadien, D.M. Dauer, D. Diener, J. Oliver, D.J. Reish, R.G. Velarde, J.Q. Word. 2008. The level of agreement among experts applying best professional judgment to assess the condition of benthic infaunal communities. *Ecological Indicators* 8:389-394.

Schnitzer, A., P.E. Miller, R.A. Schaffner, B.A. Stauffer, B.H. Jones, S.B. Weisberg, P.M. DiGiacomo, W.M. Berelson, D.A. Caron. 2007. Blooms of Pseudo-nitzschia and domoic acid in the San Pedro Channel and Los Angeles Harbor areas of the Southern California Bight, 2003-2004. *Harmful Algae* 6:372-387.

Colford Jr, J.M., T.J. Wade, K.C. Schiff, C.C. Wright, J.F. Griffith, S.K. Sandhu, S. Burns, M. Sobsey, G. Lovelace, S.B. Weisberg. 2007. Water quality indicators and the risk of illness at beaches with nonpoint sources of fecal contamination. *Epidemiology* 18:27-35.

Bay, S.M., W. Berry, P.M. Chapman, R. Fairey, T. Gries, E. Long, D. MacDonald, S.B. Weisberg. 2007. Evaluating consistency of best professional judgment in the application of a multiple lines of evidence sediment quality triad. *Integrated Environmental Assessment and Management* 3:491-497.

Nezlin, N.P., S.B. Weisberg, D.W. Diehl. 2007. Relative availability of satellite imagery and ship-based sampling for assessment of stormwater runoff plumes in coastal southern California. *Estuarine, Coastal and Shelf Science* 71:250-258.

Warrick, J.A., P.M. DiGiacomo, S.B. Weisberg, N.P. Nezlin, M. Mengel, B.H. Jones, J.C. Ohlmann, L. Washburn, E.J. Terrill, K.L. Farnsworth. 2007. River plume patterns and dynamics within the Southern California Bight. *Continental Shelf Research* 27:2427-2448.

Griffith, J.F., L.A. Aumand, I.M. Lee, C.D. McGEE, L.L. Othman, K.J. Ritter, K.O. Walker, S.B. Weisberg. 2006. Comparison and verification of bacterial water quality indicator measurement methods using ambient coastal water samples. *Environmental Monitoring and Assessment* 116:335-344.

Ranasinghe, J.A., T.K. Mikel, R.G. Velarde, S.B. Weisberg, D.E. Montagne, D.B. Cadien, A. Dalkey. 2005. The prevalence of non-indigenous species in southern California embayments and their

effects on benthic macroinvertebrate communities. *Biological Invasion* 7:679-686.

Boehm, A.B., S.B. Weisberg. 2005. Tidal forcing of enterococci at marine recreational beaches at fortnightly and semidiurnal frequencies. *Environmental Science and Technology* 39:5575-5593.

Noble, R.T., S.B. Weisberg. 2005. A review of technologies for rapid detection of bacteria in recreational waters. *Journal of Water and Health* 3.4:381-392.

Ackerman, D., K.C. Schiff, S.B. Weisberg. 2005. Evaluating HSPF in an arid, urbanized watershed. *Journal of the American Water Resources Association* 41:477-486.

Noble, R.T., M.K. Leecaster, C.D. McGee, S.B. Weisberg, K. Ritter. 2004. Comparison of bacterial indicator analysis methods in stormwater-affected coastal waters. *Water Research* 38:1183-1188.

Griffith, J.F., S.B. Weisberg, C.D. McGee. 2003. Evaluation of microbial source tracking methods using mixed fecal sources in aqueous test samples. *Journal of Water and Health* 1.4:141-151.

Noble, R.T., S.B. Weisberg, M.K. Leecaster, C.D. McGee, K. Ritter, K.O. Walker, P.M. Vainik. 2003. Comparison of beach bacterial water quality indicator measurement methods. *Environmental Monitoring and Assessment* 81:301-312.

Ranasinghe, J.A., D.E. Montagne, S.B. Weisberg, M. Bergen, R.G. Velarde. 2003. Variability in the identification and enumeration of marine benthic invertebrate samples and its effect on benthic assessment measures. *Environmental Monitoring and Assessment* 81:199-206.

Bernstein, B.B., S.B. Weisberg. 2003. Southern California's marine monitoring system ten years after the National Research Council evaluation. *Environmental Monitoring and Assessment* 81:3-14.

Stewart, J.R., R.D. Ellender, J.A. Gooch, S. Jiang, S.P. Myoda, S.B. Weisberg. 2003. Recommendations for microbial source tracking: lessons from a methods comparison study. *Journal of Water and Health* 1.4:225-231.

Schiff, K.C., J. Morton, S.B. Weisberg. 2003. Retrospective evaluation of shoreline water quality along Santa Monica Bay beaches. *Marine Environmental Research* 56:245-253.

Gossett, R., R. Baird, K. Christensen, S.B. Weisberg. 2003. Making performance-based chemistry work: how we created comparable data among laboratories as part of a Southern California marine regional assessment. *Environmental Monitoring and Assessment* 81:269-287.

Noble, R.T., D.F. Moore, M.K. Leecaster, C.D. McGee, S.B. Weisberg. 2003. Comparison of total coliform, fecal coliform, and enterococcus bacterial indicator response for ocean recreational water quality testing. *Water Research* 37:1637-1643.

- Dojiri, M., M. Yamaguchi, S.B. Weisberg, H.J. Lee. 2003. Changing anthropogenic influence on the Santa Monica Bay watershed. *Marine Environmental Research* 56:1-14.
- Noble, R.T., S.B. Weisberg, M.K. Leecaster, C.D. McGee, J.H. Dorsey, P. Vainik, V. Orozco-Borbon. 2003. Storm effects on regional beach water quality along the southern California shoreline. *Journal of Water and Health* 1:23-31.
- Ackerman, D., S.B. Weisberg. 2003. Relationship between rainfall and beach bacterial concentrations on Santa Monica Bay beaches. *Journal of Water and Health* 1.2:85-89.
- Allen, M.J., S.L. Moore, S.B. Weisberg, A.K. Groce, M.K. Leecaster. 2002. Comparability of bioaccumulation within the sanddab guild in coastal southern California. *Marine Pollution Bulletin* 44:452-458.
- Schiff, K.C., S.B. Weisberg, V. Raco-Rands. 2002. Inventory of ocean monitoring in the Southern California Bight. *Environmental Management* 29:871-876.
- Moore, C.J., S.L. Moore, S.B. Weisberg, G.L. Lattin, A.F. Zellers. 2002. A comparison of neustonic plastic and zooplankton abundance in southern California's coastal waters. *Marine Pollution Bulletin* 44:1035-1038.
- Schiff, K.C., S.B. Weisberg, J.H. Dorsey. 2001. Microbiological monitoring of marine recreational waters in southern California. *Environmental Management* 27:149-157.
- Moore, S.L., D. Gregorio, M. Carreon, S.B. Weisberg, M. Leecaster. 2001. Composition and distribution of beach debris in Orange County, California. *Marine Pollution Bulletin* 42:241-245.
- Paul, J.F., K.J. Scott, D.E. Campbell, J.H. Gentile, C.S. Strobel, R.M. Valente, S.B. Weisberg, A.F. Holland, J.A. Ranasinghe. 2001. Developing and applying a benthic index of estuarine condition for the Virginian Biogeographic Province. *Ecological Indicators* 1:83.
- Bergen, M., S.B. Weisberg, R. Smith, D. Cadien, A. Dalkey, D. Montagne, J. Stull, R. Velarde, J.A. Ranasinghe. 2001. Relationship between depth, sediment, latitude, and the structure of benthic infaunal assemblages on the mainland shelf of southern California. *Marine Biology* 138:637-647.
- Smith, R.W., M. Bergen, S.B. Weisberg, D. Cadien, A. Dalkey, D. Montagne, J.K. Stull, R.G. Velarde. 2001. Benthic response index for assessing infaunal communities on the Southern California mainland shelf. *Ecological Applications* 11:1073-1087.
- Moore, C.J., S.L. Moore, M.K. Leecaster, S.B. Weisberg. 2001. A comparison of plastic and plankton in the North Pacific Central Gyre. *Marine Pollution Bulletin* 42:1297-1300.
- Leecaster, M., S.B. Weisberg. 2001. Effect of sampling frequency on shoreline microbiology

assessments. *Marine Pollution Bulletin* 42:1150-1154.

Weisberg, S.B., T.L. Hayward, M. Cole. 2000. Towards a US GOOS: a synthesis of lessons learned from previous coastal monitoring efforts. *Oceanography* 13:54-61.

Dauer, D.M., S.B. Weisberg, J.A. Ranasinghe. 2000. Relationships between benthic community condition, water quality, sediment quality, nutrient loads, and land use patterns in Chesapeake Bay. *Estuaries* 23:80-96.

Weisberg, S.B., H.T. Wilson, D.G. Heimbuch, H.L. Windom, J.K. Summers. 2000. Comparison of sediment metal:aluminum relationships between the eastern and gulf coasts of the United States. *Environmental Monitoring and Assessment* 61:373-385.

Bergen, M., D. Cadien, A. Dalkey, D.E. Montagne, R.W. Smith, J.K. Stull, R.G. Velarde, S.B. Weisberg. 2000. Assessment of benthic infaunal condition on the mainland shelf of southern California. *Environmental Monitoring and Assessment* 64:421-434.

Noble, R.T., J.H. Dorsey, M. Leecaster, V. Orozco-Borbon, D. Reid, K.C. Schiff, S.B. Weisberg. 2000. A regional survey of the microbiological water quality along the shoreline of the Southern California Bight. *Environmental Monitoring and Assessment* 64:435-447.

Schiff, K.C., S.B. Weisberg. 1999. Iron as a reference element in southern California coastal shelf sediments. *Marine Environmental Research* 48:161-176.

Hashimoto, J. and S.B. Weisberg. 1998. Coordinating site-specific NPDES monitoring to achieve regional monitoring in southern California. pp. 41-48 in: *Monitoring: Critical Foundations to Protect Our Waters*, Proceedings of the National Water Quality Monitoring Council Conference, Reno, NV. US Environmental Protection Agency. Washington, D.C.

Monaco, M.E., S.B. Weisberg, and T.A. Lowery. 1998. Summer habitat affinities of estuarine fish in US mid-Atlantic coastal systems. *Fisheries Management and Ecology* 5:161-172.

Roth, N., M. Southerland, J. Chaillou, R. Klauda, P. Kazyak, S. Stranko, S. Weisberg, L. Hall, and R. Morgan. 1998. Maryland Biological Stream Survey: Development of a fish index of biotic integrity. *Environmental Monitoring and Assessment* 51:89-106.

Alden, R., S.B. Weisberg, J.A. Ranasinghe, and D.M. Dauer. 1997. Optimizing temporal sampling strategies for benthic environmental monitoring programs. *Marine Pollution Bulletin* 34:913-922.

Heimbuch, D.A., H.T. Wilson, S.B. Weisberg, J.H. Volstad, and P.F. Kazyak. 1997. Estimating fish abundance from a probability-based stream survey with two-pass removal sampling. *Transactions of the American Fisheries Society* 126:795-803.

- Weisberg, S.B., J.A. Ranasinghe, D.M. Dauer, L.C. Schafner, R.J. Diaz, and J.B. Frithsen. 1997. An estuarine Benthic Index of Biotic Integrity (B-IBI) for Chesapeake Bay. *Estuaries* 20:149-158.
- Summers, J.K., S.B. Weisberg, A.F. Holland, J. Kou, V.D. Engle, D. Breitburg, and R.J. Diaz. 1997. Characterizing dissolved oxygen conditions in estuarine environments. *Environmental Monitoring and Assessment* 45:319-328.
- Maxted, J., S.B. Weisberg, J.C. Chaillou, R. Eskin, and F.W. Kutz. 1997. The ecological condition of man-made dead-end canals in the Maryland and Delaware Coastal Bays. *Estuaries* 20:319-327.
- Fornie, J.A., J.K. Summers, and S.B. Weisberg. 1996. Gross pathological abnormalities in estuarine finfish of the eastern United States. *Transactions of the American Fisheries Society* 125:581-590.
- Weisberg, S.B., P. Himchak, T. Baum, H.T. Wilson, and R. Allen. 1996. Temporal trends in abundance of fish from the tidal Delaware River. *Estuaries* 19:723-729.
- Burton, W.H. and S.B. Weisberg. 1994. Estimating abundance of age-0 striped bass in the Delaware River using marked hatchery fish. *North American Journal of Fisheries Management* 14:347-354.
- Wilson, H.T. and S.B. Weisberg. 1993. Design considerations for beach seine surveys of striped bass. *North American Journal of Fisheries Management* 13:376-382.
- Weisberg, S.B. and W.H. Burton. 1993. Spring distribution and abundance of ichthyoplankton in the tidal Delaware River. *Fishery Bulletin* 91:788-797.
- Weisberg, S.B. and W.H. Burton. 1993. Enhancement of fish feeding and growth after establishment of minimum flow requirements from the Conowingo Hydroelectric Dam. *North American Journal of Fisheries Management* 13:103-109.
- Paul, J.F., K.J. Scott, A.F. Holland, S.B. Weisberg, J.K. Summers, and A. Robertson. 1992. The estuarine component of the U.S. EPA's Environmental Monitoring and Assessment Program. *Chemistry and Ecology* 7:93-116.
- Burton, W.H., S.B. Weisberg, A. Brindley, and J. Gurley. 1992. Early life stage survival of striped bass in the Delaware River. *Archives for Environmental Contamination and Toxicology* 23:333-338.
- Morgan, R.P., S.B. Weisberg, R.E. Jacobsen, L.A. McDowell, and H.T. Wilson. 1991. Effects of flow alteration on benthic invertebrate communities below the Brighton hydroelectric dam. *Journal of Freshwater Ecology* 6:419-429.
- Summers, J.K., P.F. Kazyak, and S.B. Weisberg. 1991. A water quality model for a river receiving



paper mill effluents and conventional sewage. *Ecological Modeling* 58:25-54.

Weisberg, S.B., W.H. Burton, and R.L. Herman. 1990. Effects of the Presidente Rivera oil spill on young-of-year striped bass. pp. 203-214 in: M.L. Spaulding and M. Reed (eds.), *Oil Spills: Management and Legislative Implications*. American Society of Civil Engineers. New York, NY.

Weisberg, S.B. and A.J. Janicki. 1990. Summer feeding patterns of white perch, yellow perch and channel catfish in the Susquehanna River, Maryland. *Journal of Freshwater Ecology* 5:391-405.

Weisberg, S.B., A.J. Janicki, J. Gerritsen, and H.A. Wilson. 1990. Enhancement of benthic macroinvertebrates by minimum flow from a hydroelectric dam. *Regulated Rivers* 5:265-277.

Petts, G., J. Imhoff, B. Manny, J.F.B. Maher, and S.B. Weisberg. 1989. Management of fish populations in large rivers: A review of tools and approaches. *Canadian Special Publication of Fisheries and Aquatic Science* 106:578-588.

Cadman, L.R., A.F. Holland and S.B. Weisberg. 1988. When are tempering pumps an effective BAT for mitigating thermal impacts? pp. 384-400 in: K. L. Mahadaven (ed.), *Aquatic Ecological Effects of Power Generation*. Mote Marine Institute. Sarasota, FL.

Weisberg, S.B., W.H. Burton, E.A. Ross, and F. Jacobs. 1987. Reductions in ichthyoplankton entrainment using fine mesh wedge-wire screens. *North American Journal of Fisheries Management* 7:386-393.

Weisberg, S.B. 1986. Competition and coexistence among four estuarine species of *Fundulus*. *American Zoologist* 26:249-257.

Weisberg, S.B., C.F. Stroup, and A.F. Holland. 1986. Tests of antifouling technologies for use with fine mesh water intake screens in an estuarine environment. *Marine Technology Society Journal* 20:37-43.

Joyce, A.A. and S.B. Weisberg. 1986. The effects of predation by the mummichog, *Fundulus heteroclitus*, on the abundance and distribution of the salt marsh snail, *Melampus bidentatus*. *Journal of Experimental Marine Biology and Ecology* 100:295-306.

Weisberg, S.B. and V.A. Lotrich. 1986. Food limitation of a Delaware salt marsh population of the mummichog, *Fundulus heteroclitus*. *Oecologia* 68:168-173.

Weisberg, S.B., R.P. Morin, E.A. Ross, and M.F. Hirshfield. 1986. Eustrongylides (Nematoda) infection in mummichogs and other fish of the Chesapeake Bay region. *Transactions of the American Fisheries Society* 115:776-783.

Bowman, M.L. and S.B. Weisberg. 1985. Use of multiple unequally-sized turbines to reduce flow

fluctuations below hydroelectric dams. pp. 390-394 in: F.W. Olson, R.G. White and R.H. Hamre (eds.), *Symposium on Small Hydropower and Fisheries*. American Fisheries Society. Bethesda, MD.

Bowman, M.L. and S.B. Weisberg. 1985. Use of multiple unequally-sized turbines to reduce flow fluctuations below hydroelectric dams. pp. 390-394 in: F.W. Olson, R.G. White and R.H. Hamre (eds.), *Symposium on Small Hydropower and Fisheries*. American Fisheries Society. Bethesda, Maryland.

Weisberg, S.B. and V.A. Lotrich. 1982. Ingestion, egestion, excretion, growth and conversion efficiency for the mummichog, *Fundulus heteroclitus*. *Journal of Experimental Marine Biology and Ecology* 62:237-249.

Weisberg, S.B. and V.A. Lotrich. 1982. The importance of an infrequently flooded intertidal marsh surface as an energy source for the mummichog, *Fundulus heteroclitus*: An experimental approach. *Marine Biology* 66:307-310.

Weisberg, S.B., R. Whalen, and V.A. Lotrich. 1981. Tidal and diurnal influence on food consumption of a salt marsh killifish (*Fundulus heteroclitus*). *Marine Biology* 61:243-246.

Weisberg, S.B. 1981. Food availability and utilization by the mummichog, *Fundulus heteroclitus* (L.). Ph.D. Dissertation, University of Delaware. Newark, DE.

## Book Chapters

Cao, Y., J.F. Griffith, S.B. Weisberg. 2016. The Next-Generation PCR-Based Quantification Method for Ambient Waters: Digital PCR. in: S.J. Bourlat (ed.), *Marine Genomics: Methods and Protocols* pp. 113-130. Springer. New York, NY.

Weisberg, S.B., K.E. Setty. 2012. Oceanic pollution. in: R.H. Friis (ed.), *The Praeger Handbook of Environmental Health - Volume 1: Foundations of the Field* pp. 133-154. ABC-CLIO, LLC. Santa Barbara, CA.

Borja, A., A. Basset, S. Bricker, J.-C. Dauvin, M. Elliott, T. Harrison, J.-C. Marques, S.B. Weisberg, R. West. 2011. Classifying ecological quality and integrity of estuaries. in: E. Wolanski, D.S. McLusky (eds.), *Treatise on Estuarine and Coastal Science: Volume 1* pp. 125-162. Academic Press. Waltham, MA.

Hagedorn, C., S.B. Weisberg. 2011. Chemical-Based Fecal Source Tracking Methods. in: C. Hagedorn, A.R. Blanch, V.J. Harwood (eds.), *Microbial Source Tracking: Methods, Applications, and Case Studies* pp. 189-206. Springer. Basingstoke, UK.

Rose, J.B., E.A. Dreelin, S.B. Weisberg. 2008. Transboundary Monitoring of International Waters: Critical Questions for Microbial Water Quality. in: J.B. Rose, E.A. Dreelin (eds.), *Effective Cross-Border Monitoring Systems for Waterborne Microbial Pathogens: A Plan for Action* pp. 1-22. IWA Publishing. London, UK.

Boehm, A.B., R.L. Whitman, M.B. Nevers, D. Hou, S.B. Weisberg. 2007. Nowcasting recreational water quality. in: L.J. Wymer (ed.), *Statistical Framework for Recreational Water Quality Criteria and Monitoring* pp. 179-210. John Wiley & Sons, Ltd. West Sussex, England.

Weisberg, S.B., R.T. Noble, J.F. Griffith. 2007. Microbial Indicators of Marine Recreational Water Quality. in: C.J. Hurst, R.L. Crawford, A.L. Mills, J.L. Garland, L.D. Stetzenbach, D.A. Lipson (eds.), *Manual of Environmental Microbiology* pp. 280-289. ASM Press. Washington, D.C..

Weisberg, S.B. 2007. A management context for the statistical design of recreational contact water quality monitoring programs. in: L.J. Wymer (ed.), *Statistical Framework for Recreational Water Quality Criteria and Monitoring* pp. 13-18. John Wiley & Sons, Ltd. West Sussex, England.

## Technical Reports

Zimmer-Faust, A.G., J.F. Griffith, J. Freshwater, J. Peng, S. Goong, S.B. Weisberg. 2022. Relationships between indicators and pathogens in shellfish and water in Newport Bay, CA. Technical Report 1193. Southern California Coastal Water Research Project. Costa Mesa, CA.

Zimmer-Faust, A.G., J.F. Griffith, S.B. Weisberg. 2021. Quantification of Sources of Fecal Pollution at Mule Creek. Technical Report 1186. Southern California Coastal Water Research Project. Costa Mesa, CA.

Hale, T., S.L. Moore, P. Kauhanen, L. Flores, S.B. Weisberg. 2021. California Trash Monitoring Methods and Assessments Playbook. Technical Report 1189. San Francisco Estuary Institute. San Francisco, CA.

Hale, T., S.L. Moore, P. Kauhanen, L. Flores, S.B. Weisberg. 2021. Field Testing Report for the Statewide Trash Monitoring Methods Project. Technical Report 1190. San Francisco Estuary Institute. San Francisco, CA.

Weisberg, S.B., F. Chan, J. Barry, A. Boehm, S. Busch, S. Cooley, R. Feely, L. Levin. 2020. Enhancing California's Ocean Acidification and Hypoxia Monitoring Network. Technical Report 1137. Ocean Protection Council. Sacramento, CA.

Martindale, S., S.B. Weisberg, S. Coffin. 2020. Status of Legislation and Regulatory Drivers for Microplastics in California. Technical Report 1133. Horiba. Irvine, CA.

Cao, Y., M.R. Raith, P.D. Smith, J.F. Griffith, S.B. Weisberg, A. Schriewer, A. Sheldon, C. Crompton, G.G. Amenu, J. Gregory, J. Guzman, K.D. Goodwin, L. Othman, M. Manasjan, S. Choi, S. Rapaport, S. Steele, T. Nguyen, X. Yu. 2017. Southern California Bight 2013 Regional Monitoring Program: Volume IX. Shoreline Microbiology. Technical Report 1005. Southern California Coastal Water Research Project. Costa Mesa, CA.

Nezlin, N.P., K. McLaughlin, A.T. Booth, C.L. Cash, D.W. Diehl, K. Davis, A. Feit, R. Goericke, J.R. Gully, M.D.A. Howard, S. Johnson, A. Latker, M.J. Mengel, G.L. Robertson, A. Steele, L. Terriquez, L.i.b.e. Washburn, S.B. Weisberg. 2017. Spatial and Temporal Patterns of Chlorophyll Concentration in the Southern California Bight. Technical Report 998. Southern California Coastal Water Research Project. Costa Mesa, CA.

Sarman, E.T., B. Owens, R.F. Ambrose, M.H. Carr, J.C. Field, S.N. Murray, K.J. Nielsen, S.B. Weisberg. 2017. A Framework for Informing Permitting Decisions on Scientific Activities in Marine Protected Areas. Technical Report 991. Ocean Protection Council Science Advisory Team. Sacramento, CA.

Aminzadeh, S., M. Armsby, N. Bednarsek, J. Bishop, A. Boehm, C. Braby, F. Chan, R. Dunbar, R. Feely, B. Gaylord, L. Jewett, C. Krembs, K. Kroeker, R. Labiosa, T. Maloney, J. Phillips, B. Rappoli, M. Sakashita, D. Sivas, G. Somero, M. Sutula, D. Thomas, G. Waldbusser, S.B. Weisberg. 2016. Ocean Acidification: Setting Water Quality Goals. Technical Report 961. Stanford University. Stanford, CA.

Boehm, A., F. Chan, J. Barth, E. Chornesky, A. Dickson, R. Feely, B. Hales, T. Hill, G. Hofmann, D. Ianson, T. Klinger, J. Largier, J. Newton, T. Pedersen, G. Somero, M. Sutula, W. Wakefield, G. Waldbusser, S.B. Weisberg, E. Whiteman. 2016. The West Coast Ocean Acidification and Hypoxia Science Panel: Major Findings, Recommendations, and Actions. Technical Report 926. California Ocean Science Trust. Oakland, CA.

Martz, T., K. McLaughlin, S.B. Weisberg. 2015. Best Practices for autonomous measurement of seawater pH with the Honeywell Durafet pH sensor. Technical Report 861. California Current Acidification Network. Santa Barbara, CA.

Howard, M.D.A., G. Robertson, M. Sutula, B.H. Jones, N.P. Nezlin, Y. Chao, H. Frenzel, M.J. Mengel, D.A. Caron, B. Seegers, A. Sengupta, E. Seubert, D.W. Diehl, S.B. Weisberg. 2013. Southern California Bight 2008 Regional Monitoring Program: VII. Water Quality. Technical Report 710. Southern California Coastal Water Research Project. Costa Mesa, CA.

Howard, M.D.A., G. Robertson, M. Sutula, B.H. Jones, N.P. Nezlin, Y. Chao, H. Frenzel, M.J. Mengel, D.A. Caron, B. Seegers, A. Sengupta, E. Seubert, D.W. Diehl, S.B. Weisberg. 2013. Southern California Bight 2008 Regional Monitoring Program: VII. Water Quality (Appendix A). Technical Report 710.A. Southern California Coastal Water Research Project. Costa Mesa, CA.

Howard, M.D.A., G. Robertson, M. Sutula, B.H. Jones, N.P. Nezlin, Y. Chao, H. Frenzel, M.J. Mengel, D.A. Caron, B. Seegers, A. Sengupta, E. Seubert, D.W. Diehl, S.B. Weisberg. 2013. Southern California Bight 2008 Regional Monitoring Program: VII. Water Quality (Appendix B). Technical Report 710.B. Southern California Coastal Water Research Project. Costa Mesa, CA.

Howard, M.D.A., G. Robertson, M. Sutula, B.H. Jones, N.P. Nezlin, Y. Chao, H. Frenzel, M.J. Mengel, D.A. Caron, B. Seegers, A. Sengupta, E. Seubert, D.W. Diehl, S.B. Weisberg. 2013. Southern California Bight 2008 Regional Monitoring Program: VII. Water Quality (Appendix C). Technical Report 710.C. Southern California Coastal Water Research Project. Costa Mesa, CA.

Howard, M.D.A., G. Robertson, M. Sutula, B.H. Jones, N.P. Nezlin, Y. Chao, H. Frenzel, M.J. Mengel, D.A. Caron, B. Seegers, A. Sengupta, E. Seubert, D.W. Diehl, S.B. Weisberg. 2013. Southern California Bight 2008 Regional Monitoring Program: VII. Water Quality (Appendix D). Technical Report 710.D. Southern California Coastal Water Research Project. Costa Mesa, CA.

Howard, M.D.A., G. Robertson, M. Sutula, B.H. Jones, N.P. Nezlin, Y. Chao, H. Frenzel, M.J. Mengel, D.A. Caron, B. Seegers, A. Sengupta, E. Seubert, D.W. Diehl, S.B. Weisberg. 2013. Southern California Bight 2008 Regional Monitoring Program: VII. Water Quality (Appendix E). Technical Report 710.E. Southern California Coastal Water Research Project. Costa Mesa, CA.

Griffith, J.F., B.A. Layton, A.B. Boehm, P.A. Holden, J.A. Jay, C. Hagedorn, C.D. McGee, S.B. Weisberg. 2013. The California Microbial Source Identification Manual: A Tiered Approach to Identifying Fecal Pollution Sources to Beaches. Technical Report 804. Southern California Coastal Water Research Project. Costa Mesa, CA.

Setty, K., K.C. Schiff, S.B. Weisberg. 2012. Forty Years after the Clean Water Act: A Retrospective Look at the Southern California Coastal Ocean. Technical Report 727. Southern California Coastal Water Research Project. Costa Mesa, CA.

Griffith, J.F., K.C. Schiff, S.B. Weisberg, C. McGee, C. Clifton. 2007. Southern California Bight 2003 Regional Monitoring Program: VI. Shoreline Microbiology. Technical Report 526. Southern California Coastal Water Research Project. Costa Mesa, CA.

Ranasinghe, J.A., A.M. Barnett, K.C. Schiff, D.E. Montagne, C. Brantley, C. Beegan, D.B. Cadien, C. Cash, G.B. Deets, D.R. Diener, T.K. Mikel, R.W. Smith, R.G. Velarde, S.D. Watts, S.B. Weisberg. 2007. Southern California Bight 2003 Regional Monitoring Program: III. Benthic Macrofauna. Technical Report 529. Southern California Coastal Water Research Project. Costa Mesa, CA.

Ranasinghe, J.A., S.B. Weisberg, R.W. Smith, D.E. Montagne, B. Thompson, J.M. Oakden, D.D. Huff, D.B. Cadien, R.G. Velarde, K.J. Ritter. 2007. Evaluation of five indicators of benthic community condition in two California bay and estuary habitats. Technical Report 524. Southern California Coastal Water Research Project. Costa Mesa, CA.

Nezlin, N.P., P.M. DiGiacomo, S.B. Weisberg, D.W. Diehl, J.A. Warrick, M.J. Mengel, B.H. Jones, K.M. Reifel, S.C. Johnson, J.C. Ohlmann, L. Washburn, E.J. Terrill. 2007. Southern California Bight 2003 Regional Monitoring Program: V. Water Quality. Technical Report 528. Southern California Coastal Water Research Project. Costa Mesa, CA.

Barnett, A.M., S.M. Bay, K.J. Ritter, S.L. Moore, S.B. Weisberg. 2007. Sediment quality in California bays and estuaries. Technical Report 522. Southern California Coastal Water Research Project. Costa Mesa, CA.

Griffith, J.F., D. Moore, C. McGee, S.B. Weisberg. 2007. Beta testing of rapid methods for measuring beach water quality. Technical Report 506. Southern California Coastal Water Research Project. Costa Mesa, CA.

Weisberg, S.B., B. Thompson, J.A. Ranasinghe, D.E. Montagne, D.B. Cadien, D.M. Dauer, D. Diener, J. Oliver, D.J. Reish, R.G. Velarde, J.Q. Word. 2007. The level of agreement among experts applying best professional judgment to assess the condition of benthic infaunal communities. Technical Report 523. Southern California Coastal Water Research Project. Costa Mesa, CA.

Griffith, J.F., S.B. Weisberg. 2006. Evaluation of Rapid Microbiological Methods for Measuring Recreational Water Quality. Technical Report 485. Southern California Coastal Water Research Project. Westminster, CA.

Colford Jr, J.M., T.J. Wade, K.C. Schiff, C. Wright, J.F. Griffith, S.K. Sandhu, S.B. Weisberg. 2005. Recreational water contact and illness in Mission Bay, California. Technical Report 449. Southern California Coastal Water Research Project. Westminster, CA.

Colford Jr, J.M., T.J. Wade, K.C. Schiff, C. Wright, J.F. Griffith, S.K. Sandhu, S.B. Weisberg. 2005. Recreational water contact and illness in Mission Bay, California (Appendices 1-3). Technical Report 449.1-3. Southern California Coastal Water Research Project. Westminster, CA.

Colford Jr, J.M., T.J. Wade, K.C. Schiff, C. Wright, J.F. Griffith, S.K. Sandhu, S.B. Weisberg. 2005. Recreational water contact and illness in Mission Bay, California (Appendices 4-7). Technical Report 449.4-7. Southern California Coastal Water Research Project. Westminster, CA.

Ranasinghe, J.A., D.E. Montagne, R.W. Smith, T.K. Mikel, S.B. Weisberg, D.B. Cadien, R.G. Velarde, A. Dalkey. 2003. Southern California Bight 1998 Regional Monitoring Program: VII. Benthic macrofauna. Technical Report 382. Southern California Coastal Water Research Project. Westminster, CA.

Smith, R., J.A. Ranasinghe, S.B. Weisberg, D.E. Montagne, D.B. Cadien, T.K. Mikel, R.G. Velarde, A. Dalkey. 2003. Extending the southern California benthic response index to assess benthic condition in bays. Technical Report 410. Southern California Coastal Water Research Project.

Westminster, CA.

Allen, M.J., A.K. Groce, D. Diener, J.S. Brown, S.A. Steinert, G. Deets, J.A. Noblet, S.L. Moore, D.W. Diehl, E.T. Jarvis, V. Raco-Rands, C. Thomas, Y. Ralph, R. Gartman, D. Cadien, S.B. Weisberg, T. Mikel. 2002. Southern California Bight 1998 Regional Monitoring Program: V. Demersal fishes and megabenthic invertebrates. Technical Report 380. Southern California Coastal Water Research Project. Westminster, CA.

Bernstein, B., J.F. Griffith, S.B. Weisberg. 2002. Microbiological source tracking workshop: Workgroup findings and recommendations. Technical Report 363. Southern California Coastal Water Research Project. Westminster, CA.

Schiff, K.C., J.S. Brown, S.B. Weisberg. 2001. Model monitoring program for large ocean discharges in southern California. Technical Report 357. Southern California Coastal Water Research Project. Westminster, CA.

Noble, R.T., J.H. Dorsey, M.K. Leecaster, M. Mazur, C.D. McGee, D. Moore, V. Orozco-Borbon, D. Reid, K.C. Schiff, P.M. Vainik, S.B. Weisberg. 2000. Southern California Bight 1998 Regional Monitoring Program: III. Storm event shoreline microbiology. Technical Report 338. Southern California Coastal Water Research Project. Westminster, CA.

Noble, R.T., J. Dorsey, M. Leecaster, M. Mazur, C. McGee, D. Moore, O. Victoria, D. Reid, K.C. Schiff, P. Vainik, S.B. Weisberg. 2000. Southern California Bight 1998 Regional Monitoring Program, Vol II: Winter shoreline microbiology. Technical Report 337. Southern California Coastal Water Research Project. Westminster, CA.

Noble, R.T., J. Dorsey, M. Leecaster, M. Mazur, C. McGee, D. Moore, O. Victoria, D. Reid, K.C. Schiff, P. Vainik, S.B. Weisberg. 1999. Southern California Bight 1998 Regional Monitoring Program, Vol I: Summer shoreline microbiology. Technical Report 336. Southern California Coastal Water Research Project. Westminster, CA.

Allen, M.J., S.L. Moore, K.C. Schiff, S.B. Weisberg, D. Diener, J.K. Stull, A. Groce, J. Mubarak, C.L. Tang, R. Gartman. 1998. Southern California Bight 1994 Pilot Project: V. Demersal fishes and megabenthic invertebrates. Technical Report 308. Southern California Coastal Water Research Project. Westminster, CA.

Bergen, M., S.B. Weisberg, D. Cadien, A. Dalkey, D. Montagne, R.W. Smith, J.K. Stull, R.G. Velarde. 1998. Southern California Bight 1994 Pilot Project: IV. Benthic infauna. Technical Report 307. Southern California Coastal Water Research Project. Westminster, CA.

Hashimoto, J., S.B. Weisberg. 1998. Coordinating site-specific NPDES monitoring to achieve regional monitoring in southern California. Technical Report 304. Environmental Protection

Agency. Reno, NV.

## Annual Report Articles

SCCWRP Staff. 2018. [SCCWRP 2018 Annual Report](#).

SCCWRP Staff. 2017. [SCCWRP 2017 Annual Report](#).

SCCWRP Staff. 2016. [SCCWRP 2016 Annual Report](#).

SCCWRP Staff. 2015. [SCCWRP 2015 Annual Report](#).

SCCWRP Staff. 2014. [SCCWRP 2014 Annual Report](#).

Maruya, K.A., N.G. Dodder, R.A. Schaffner, [S.B. Weisberg](#), D. Gregorio, S. Klosterhaus, D.A. Alvarez, E.T. Furlong, K.L. Kimbrough, G.G. Lauenstein, J.D. Christensen. 2013. [Refocusing Mussel Watch on contaminants of emerging concern \(CECs\): The California Pilot Study \(2009-10\)](#).

Bourlat, S.J., A. Borja, J. Gilbert, M.I. Taylor, N. Davies, [S.B. Weisberg](#), [J.F. Griffith](#), T. Lettieri, D. Field, J. Benzie, F.O. Glockner, N. Rodriguez-Ezpeleta, D.P. Faith, T.P. Bean, M. Obst. 2013. [Genomics in marine monitoring: New opportunities for assessing marine health status](#).

Arnold, B.F., [K.C. Schiff](#), [J.F. Griffith](#), J.S. Gruber, V. Yau, C.C. Wright, T.J. Wade, S. Burns, J.M. Hayes, C. McGee, M. Gold, Y. Cao, [S.B. Weisberg](#), J.M. Colford Jr. 2013. [Swimmer illness associated with marine water exposure and water quality indicators: Impact of widely used assumptions](#).

Maruya, K.A., N.G. Dodder, [S.B. Weisberg](#), D. Gregorio, J.S. Bishop, S. Klosterhaus, D.A. Alvarez, E.T. Furlong, S. Bricker, K.L. Kimbrough, G.G. Lauenstein. 2013. [The Mussel Watch California Pilot Study on contaminants of emerging concern \(CECs\): Synthesis and next steps](#).

Boehm, A.B., L.C. Van De Werfhorst, [J.F. Griffith](#), P.A. Holden, J.A. Jay, O.C. Shanks, D. Wang, [S.B. Weisberg](#). 2013. [Performance of forty-three microbial source tracking methods: A twenty-seven laboratory evaluation study](#).

Stewart, J.R., A.B. Boehm, E.A. Dubinsky, T.T. Fong, K.D. Goodwin, [J.F. Griffith](#), R.T. Noble, O.C. Shanks, K. Vijayavel, [S.B. Weisberg](#). 2013. [Recommendations following a multi-laboratory comparison of microbial source tracking methods](#).

Cao, Y., C. Hagedorn, O.C. Shanks, D. Wang, J. Ervin, [J.F. Griffith](#), B.A. Layton, C.D. McGee, T.E. Riedel, [S.B. Weisberg](#). 2013. [Towards establishing a human fecal contamination index for microbial source tracking](#).



Ervin, J.S., T.L. Russell, B.A. Layton, K.M. Yamahara, D. Wang, L.M. Sassoubre, Y. Cao, C.A. Kelty, M. Sivaganesan, A.B. Boehm, P.A. Holden, S.B. Weisberg, O.C. Shanks. 2013. Characterization of fecal concentrations in human and other animal sources by physical, culture-based, and quantitative real-time PCR methods.

Shanks, O.C., M. Sivaganesan, L.i.n.d.s.a.y. Peed, C.A. Kelty, A.D. Blackwood, M.R. Greene, R.T. Noble, R.N. Bushon, E.A. Stelzer, J. Kinzelman, T. Anan'eva, C. Sinigalliano, D. Wanless, J.F. Griffith, Y. Cao, S.B. Weisberg, V.J. Harwood, C. Staley, K.H. Oshima, M. Varma, R.A. Haugland. 2012. Inter-laboratory comparison of real-time PCR protocols for quantification of general fecal indicator bacteria.

Fernandez, L.A., W. Lao, K.A. Maruya, C. White, R.M. Burgess. 2012. Passive sampling to measure background dissolved persistent organic pollutant concentrations in the water column of the Palos Verdes Shelf Superfund site.

Resh, V.H., L.A. Beche, J.E. Lawrence, R.D. Mazor, E.P. McElravy, A.P. O'Dowd, D. Rudnick, S.M. Carlson. 2012. Long-term population and community patterns of benthic macroinvertebrates and fishes in northern California Mediterranean-climate streams.

Ryu, H., J.F. Griffith, I.U.H. Khan, S. Hill, T.A. Edge, C. Toledo-Hernandez, J. Gonzalez-Nieves, J. Santo Domingo. 2012. Comparison of gull feces-specific assays targeting the 16S rRNA gene of *Catelicoccus marimammalium* and *Streptococcus* spp.

Ryu, H., M. Henson, M. Elk, C. Toledo-Hernandez, J.F. Griffith, D. Blackwood, R. Noble, M. Gourmelon, S. Glassmeyer, J. Santo Domingo. 2012. Development of quantitative PCR assays targeting 16S rRNA gene of *Enterococcus* spp. and their application to the identification of *Enterococcus* species in environmental samples.

Green, L., M. Sutula, P. Fong. 2012. How much is too much? Identifying benchmarks of adverse effects of macroalgae on the macrobenthic community in estuarine intertidal flats.

Sutula, M., L. Green, G. Cicchetti, N. Detenbeck, P. Fong. 2012. Thresholds of adverse effects of macroalgal abundance and sediment organic matter on benthic habitat quality in estuarine intertidal flats.

Sapozhnikova, Y., E. Wirth, K.C. Schiff, M. Fulton. 2012. Antifouling biocides in water and sediments from California marinas.

Goodwin, K.D., M. McNay, Y. Cao, D. Ebentier, M. Madison, J.F. Griffith. 2012. A multi-beach study of *Staphylococcus aureus*, MRSA, and enterococci in seawater and beach sand.

McQuaig, S., J.F. Griffith, V.J. Harwood. 2012. The association of fecal indicator bacteria with human viruses and microbial source tracking markers at coastal beaches impacted by nonpoint

source pollution.

Sengupta, A., E.D. Stein, R.J. Hawley. 2012. General regression neural networks to estimate hydromodification response in semi-arid southern California streams.

Cao, Y., L.C. Van De Werfhorst, B. Sercu, J.L.S. Murray, P.A. Holden. 2012. Application of an integrated community analysis approach for microbial source tracking in a coastal creek.

Stein, E.D., J.S. Brown, T.S. Hogue, M.P. Burke, A. Kinoshita. 2012. Stormwater contaminant loading following wildfires.

Reyes, J.A., D.E. Vidal-Dorsch, D. Schlenk, S.M. Bay, J.L. Armstrong, J.R. Gully, C. Cash, M. Baker, T.D. Stebbins, G. Hardiman, K.M. Kelley. 2012. Evaluation of reproductive endocrine status in hornyhead turbot sampled from southern California's urbanized coastal environments.

Hoh, E., N.G. Dodder, S.J. Lehotay, K.C. Pangallo, C.M. Reddy, K.A. Maruya. 2012. Nontargeted comprehensive two-dimensional gas chromatography/time-of-flight mass spectrometry method and software for inventorying persistent and bioaccumulative contaminants in marine environments.

Lao, W., D. Tsukada, K.A. Maruya. 2012. The effect of co-occurring polychlorinated biphenyls on quantitation of toxaphene in fish tissue samples by gas chromatography negative ion mass spectrometry.

Stein, E.D., B.P. White, R.D. Mazor, P.E. Miller, E.M. Pilgrim. 2012. Optimizing ethanol-based sample preservation to facilitate use of DNA barcoding in routine freshwater biomonitoring programs using benthic macroinvertebrates.

Miller, E.F., K.C. Schiff. 2012. Descriptive trends in Southern California Bight demersal fish assemblages, 1994-2008.

Howard, M.D.A., M. Sutula, D. Caron, Y. Chao, J.D. Farrara, H. Frenzel, B. Jones, G. Robertson, K. McLaughlin, A. Sengupta. 2012. Comparison of natural and anthropogenic nutrient sources in the Southern California Bight.

Stancheva, R., A.E. Fetscher, R.G. Sheath. 2012. A novel quantification method for stream-inhabiting, non-diatom benthic algae, and its application in bioassessment.

Stein, E.D., M.R. Cover, A.E. Fetscher, C. O'Reilly, R. Guardado, C.W. Solek. 2012. Reach-scale geomorphic and biological effects of localized stream bank armoring.

Lao, W., K.A. Maruya, D. Tsukada. 2012. A two-component mass balance model for calibration of solid-phase microextraction fibers for pyrethroids in seawater.

Ebentier, D.L., M.R. Raith, Y. Cao, J.F. Griffith, S.B. Weisberg. 2012. Factors affecting the relationship between qPCR and culture-based enumeration of Enterococcus.

Cao, Y., J.F. Griffith, S. Dorevitch, S.B. Weisberg. 2012. Effectiveness of qPCR permutations, internal controls and dilution as means for minimizing the impact of inhibition while measuring Enterococcus in environmental waters.

Cao, Y., M. Sivaganesan, J. Kinzelman, A.D. Blackwood, R.T. Noble, R.A. Haugland, J.F. Griffith, S.B. Weisberg. 2012. Effect of platform, reference material, and quantification model on enumeration of Enterococcus by quantitative PCR methods.

Teixeira, H., S.B. Weisberg, A. Borja, J.A. Ranasinghe, D.B. Cadien, R.G. Velarde, L.L. Lovell, D. Pasko, C.A. Phillips, D.E. Montagne, K.J. Ritter, F. Salas, J.C. Marques. 2011. Calibration and validation of the AZTI's Marine Biotic Index (AMBI) for southern California marine bays.

Thompson, B., J.A. Ranasinghe, S. Lowe, A. Melwani, S.B. Weisberg. 2011. Benthic macrofaunal assemblages of the San Francisco Estuary and Delta.

Griffith, J.F., S.B. Weisberg. 2011. Challenges in implementing new technology for beach water quality monitoring: Lessons from a California demonstration project.

Ranasinghe, J.A., E.D. Stein, P.E. Miller, S.B. Weisberg. 2011. Relative performance of the Southern California Benthic Response Index using species abundance and presence-only data: Relevance to DNA Barcoding.

Converse, R.R., J.F. Griffith, R.T. Noble, R.A. Haugland, K.C. Schiff, S.B. Weisberg. 2011. Correlation between quantitative polymerase chain reaction and culture-based methods for measuring Enterococcus over various temporal scales and three California marine beaches.

Cao, Y., C.D. McGee, J.F. Griffith, S.B. Weisberg. 2011. Method repeatability for measuring Enterococcus in southern California beach sands.

Thompson, B., S.B. Weisberg, A.M.e.l.w.a.n.i. , S. Lowe, J.A. Ranasinghe, D.B. Cadien, D.M. Dauer, R.J. Diaz, W. Fields, M. Kellogg, D.E. Montagne, P.R. Ode, D.J. Reish, P.N. Slattery. 2010. Levels of agreement among experts using Best Professional Judgment to assess mesohaline and tidal freshwater benthic macrofaunal condition in the San Francisco Estuary and Delta.

Mika, K.B., G. Imamura, C. Chang, V. Conway, G. Fernandez, J.F. Griffith, R.A. Kampalath, a.n.d. CM Lee, C.-C. Lin, R. Moreno, S. Thompson, R.L. Whitman, J.A. Jay. 2010. Pilot- and bench-scale testing of fecal indicator bacteria survival in marine beach sand near point sources.

Lao, W., J. Gan. 2010. Temperature effects on a doubly tethered diproline chiral stationary phase: Hold-up volume, enantioselectivity and robustness.

Halliday, E., J.F. Griffith, R.J. Gast. 2010. Use of an exogenous plasmid standard and quantitative PCR to monitor spatial and temporal distribution of Enterococcus spp. in beach sands.

Schiff, K.C., B. Luk, D. Gregorio, S. Gruber. 2010. Assessing water quality conditions in southern California's areas of special biological significance.

Lee, C.M., J.F. Griffith, W. Kaiser, J.A. Jay. 2010. Covalently-linked immunomagnetic separation/adenosine triphosphate technique (Cov-IMS/ATP) enables rapid, in-field detection and quantification of Escherichia coli and Enterococcus spp. in freshwater and marine environments.

Vidal-Dorsch, D.E., S.M. Bay, M.A. Mays, D.J. Greenstein, D. Young, D. Schlenk, K.M. Kelley. 2010. Biological responses of marine flatfish exposed to effluent.

Svejkovsky, J., N.P. Nezlin, N.M. Mustain, J.B. Kum. 2010. Tracking stormwater discharge plumes and water quality of the Tijuana River with multispectral aerial imagery.

Sayre, J.M., R.G. Adams, W. Lao, K.A. Maruya. 2010. Comparing solid phase microextraction and polyethylene passive samplers for measuring ultra-low aqueous concentrations of regulated organic pollutants.

Boerger, C.M., G.L. Lattin, S.L. Moore, C.J. Moore. 2010. Plastic ingestion by planktivorous fishes in the North Pacific Central Gyre.

Hammerstrom, K.K., J.A. Ranasinghe, S.B. Weisberg, J.S. Oliver, W.R. Fairey, P.N. Slattery, J.M. Oakden. 2010. The effect of sample area and sieve size on benthic macrofaunal community condition assessments in California enclosed bays and estuaries.

Lawrence, J.E., K.B. Lunde, R.D. Mazor, L.A. Beche, E.P. McElravy, V.H. Resh. 2010. Long-term macroinvertebrate responses to climate change: Implications for biological assessment in Mediterranean-climate streams.

Hamilton, M.J., A.Z. Hadi, J.F. Griffith, M.J. Sadowsky. 2010. Large scale analysis of virulence genes in Escherichia coli strains isolated from Avalon Bay, CA.

Maruya, K.A., P.F. Landrum, R.M. Burgess, J.P. Shine. 2010. Incorporating contaminant bioavailability into sediment quality assessment frameworks.

Lyon, G.S., E.D. Stein. 2010. Effluent discharges from offshore oil platforms to the outer continental shelf of southern California in 2005.

Lyon, G.S., E.D. Stein. 2010. Effluent discharges to the Southern California Bight from power generating stations in 2005.

Johnston, C., J.A. Unfar, J.F. Griffith, J.A. Gooch, J.R. Stewart. 2010. A real-time qPCR assay for the detection of the nifH gene of Methanobrevibacter smithii, a potential indicator of sewage pollution.

Gregory, J.B., L.F. Webster, J.F. Griffith, J.R. Stewart. 2010. Improved detection and quantification of norovirus from water.

Ferguson, D.M., J.F. Griffith, C.D. McGee, S.B. Weisberg. 2010. Comparison of Enterococcus species selectivity using Enterolert and EPA Method 1600.

Gillett, D.J., D.J. Pondella II, K.C. Schiff, J. Freiwald, J.E. Casselle, C. Shuman, S.B. Weisberg. 2010. Comparing volunteer and professionally collected monitoring data from subtidal rocky reefs in southern California.

Setty, K.E., K.C. Schiff, J.R. Gully, S.B. Weisberg. 2010. Evolution of monitoring program design for marine outfalls in the Southern California Bight.

Boehm, A.B., J.F. Griffith, C.D. McGee, T.A. Edge, H.M. Solo-Gabriele, R. Whitman, Y. Cao, M. Getrich, J.A. Jay, D. Ferguson, K.D. Goodwin, C.M. Lee, M. Madison, S.B. Weisberg. 2009. Fecal indicator bacteria (FIB) enumeration in beach sand: A comparison study of FIB extraction methods in medium to coarse sands.

Griffith, J.F., Y. Cao, C.D. McGee, S.B. Weisberg. 2009. Evaluation of rapid methods and novel indicators for assessing microbiological beach water quality.

Noble, R.T., A.D. Blackwood, J.F. Griffith, C.D. McGee, S.B. Weisberg. 2009. Comparison of rapid QPCR-based and culture-based methods for enumeration of Enterococcus sp. and Escherichia coli in recreational waters.

Allen, M.J. 2008. Bathymetric responses in functional structure of southern California demersal fish communities to Pacific Decadal Oscillation regimes and an El Niño.

Baker, M.E., B. Ruggeri, J. Sprague, C. Eckhardt, J. Lapira, I. Wick, L. Soverchia, M. Ubaldi, A.M. Polzonetti-Magni, D.E. Vidal-Dorsch, S.M. Bay, J.R. Gully, J.A. Reyes, K.M. Kelley, D. Schlenk, E.C. Breen, R. Sasik, G. Hardiman. 2008. Analysis of endocrine disruption in southern California coastal fish using an aquatic multi-species microarray.

Maruya, K.A., E.Y. Zeng, D. Tsukada, S.M. Bay. 2008. A passive sampler based on solid phase microextraction (SPME) for quantifying hydrophobic organic contaminants in sediment porewater.

Ranasinghe, J.A., K.I. Welch, P.N. Slattery, D.E. Montagne, D.D. Huff, H. Lee II, J.L. Hyland, B. Thompson, S.B. Weisberg, J.M. Oakden, D.B. Cadien, R.G. Velarde. 2008. Habitat related benthic macrofaunal assemblages of bays and estuaries of the western United States.

Ritter, K.J., S.M. Bay, R.W. Smith, D.E. Vidal-Dorsch, L.J. Field. 2008. Development and evaluation of sediment quality guidelines based on benthic macrofauna responses.

Bay, S.M., K.J. Ritter, D.E. Vidal-Dorsch, L.J. Field. 2008. Comparison of national and regional sediment quality guidelines for classifying sediment toxicity in California.

Stein, E.D., A.E. Fetscher, R.P. Clark, A. Wiskind, J.L. Grenier, M. Sutula, J.N. Collins, C. Grosso. 2008. Validation of a Wetlands Rapid Assessment Method: Application of the EPA's Level 1-2-3 Framework for method testing and refinement.

Tiefenthaler, L.L., E.D. Stein, G.S. Lyon. 2008. Fecal indicator bacteria levels during dry weather in southern California reference streams.

Ode, P.R., C.P. Hawkins, R.D. Mazor. 2008. Comparability of biological assessments derived from predictive models and multimetric indices of increasing geographic scope.

Ranasinghe, J.A., S.B. Weisberg, R.W. Smith, D.E. Montagne, B. Thompson, J.M. Oakden, D.D. Huff, D.B. Cadien, R.G. Velarde, K.J. Ritter. 2008. Calibration and evaluation of five indicators of benthic community condition in two California bay and estuary habitats.

Brown, J.S., M. Sutula, C. Stransky, J. Rudolph. 2008. Sediment contaminant chemistry and toxicity of freshwater urban wetlands.

Stein, E.D., L.L. Tiefenthaler, K.C. Schiff. 2008. Comparison of stormwater pollutant loading by land use type.

Sabin, L.D., K.A. Maruya, W. Lao, D.W. Diehl, D. Tsukada, K.D. Stolzenbach, K.C. Schiff. 2008. Exchange of polycyclic aromatic hydrocarbons between the atmosphere, water, and sediment in southern California coastal embayments.

Tiefenthaler, L.L., E.D. Stein, K.C. Schiff. 2008. Origins and mechanisms of watershed and land use based sources of fecal indicator bacteria in urban stormwater.

Lyon, G.S., E.D. Stein. 2008. Effluent discharges to the Southern California Bight from small municipal wastewater treatment facilities in 2005.

Nezlin, N.P., K. Kamer, J. Hyde, E.D. Stein. 2008. Dissolved oxygen dynamics in a eutrophic estuary, Upper Newport Bay, California.

Nezlin, N.P., P.M. DiGiacomo, D.W. Diehl, B.H. Jones, S.C. Johnson, M.J. Mengel, K.M. Reifel, J.A. Warrick, M. Wang. 2008. Stormwater plume detection by MODIS imagery in the southern California coastal ocean.

- Barnett, A.M., S.M. Bay, K.J. Ritter, S.L. Moore, S.B. Weisberg. 2008. Sediment quality in California bays and estuaries.
- Bay, S.M., S.B. Weisberg. 2008. A framework for interpreting sediment quality triad data.
- Cao, Y., J.F. Griffith, S.B. Weisberg. 2008. Evaluation of optical brightener photodecay characteristics for the detection of human fecal contamination.
- Yang, Z.Y., K.A. Maruya, D.J. Greenstein, D. Tsukada, E.Y. Zeng. 2008. Experimental verification of a model describing solid phase microextraction (SPME) of freely dissolved organic pollutants in sediment porewater.
- Jarvis, E., K.C. Schiff, L. Sabin, M.J. Allen. 2007. Chlorinated hydrocarbons in pelagic forage fishes and squid of the Southern California Bight, USA.
- Stein, E.D., B. Bernstein. 2007. Integrating probabilistic and targeted compliance monitoring for comprehensive watershed assessment.
- Schnetzer, A., P.E. Miller, R.A. Schaffner, B.A. Stauffer, B.H. Jones, S.B. Weisberg, P.M. DiGiacomo, W.M. Berelson, D.A. Caron. 2007. Blooms of Pseudo-nitzschia and domoic acid in the San Pedro Channel and Los Angeles Harbor areas of the Southern California Bight, 2003-2004.
- Griffith, J.F., K.C. Schiff, S.B. Weisberg, C.D. McGee, C. Clifton. 2007. Efficacy of shallow water sampling to determine exposure of surfers to indicator bacteria at marine beaches.
- Hartel, P.G., C. Hagedorn, J.L. McDonald, J.A. Fisher, M.A. Saluta, J.W. Dickerson Jr, L.C. Gentit, S.L. Smith, N.S. Mantripragada, K.J. Ritter, C.N. Belcher. 2007. Exposing water samples to ultraviolet light improves fluorometry for detecting human fecal contamination.
- Warrick, J.A., P.M. DiGiacomo, S.B. Weisberg, N.P. Nezlin, M.J. Mengel, B.H. Jones, J.C. Ohlmann, L. Washburn, E.J. Terrill, K.L. Farnsworth. 2007. River plume patterns and dynamics within the Southern California Bight.
- Sapozhnikova, Y., E. Wirth, K.C. Schiff, J.S. Brown, M. Fulton. 2007. Antifouling pesticides in the coastal waters of southern California.
- Hartel, P.G., S.P. Myoda, K.J. Ritter, R.L. Kuntz, K. Rodgers, J.A. Entry, S.A. Ver Wey, E.C. Schr, J. Calle, M. Lacourt, J.E. Thies, J.P. Reilly, J.J. Fuhrmann. 2007. Geographic sharing of ribotype patterns in Enterococcus faecalis for bacterial source tracking.
- Clarke, L.B., D. Ackerman, J. Largier. 2007. Dye dispersion in the surf zone: measurements and simple models.

- Yang, Z.Y., D.J. Greenstein, E.Y. Zeng, K.A. Maruya. 2007. Determination of poly(dimethyl)siloxane water partition coefficients for selected hydrophobic organic chemicals using <sup>14</sup>C-labeled analogs.
- Schiff, K.C., B. Bax, P. Markle, T. Fleming, J. Newman. 2007. Wet and dry weather toxicity in the San Gabriel River.
- Feng, Y., P.G. Hartel, J.A. Fisher, K. Rodgers, B. Liu, B. Liu, K.J. Ritter. 2007. Differences in survival among Enterococcus faecalis subspecies in two freshwater creek sediments.
- Sabin, L.D., K.C. Schiff. 2007. Metal dry deposition rates along a coastal transect in southern California.
- Tiefenthaler, L.L., E.D. Stein, K.C. Schiff. 2007. Watershed and land use-based sources of trace metals in urban stormwater.
- Ackerman, D., E.D. Stein. 2007. Estimating the variability and confidence of land use and imperviousness relationships at a regional scale.
- Ackerman, D., E.D. Stein. 2007. Evaluating the effectiveness of Best Management Practices using dynamic modeling.
- Lyon, G.S., E.D. Stein. 2007. How effective has the Clean Water Act been at reducing pollutant mass emissions to the Southern California Bight over the past 35 years?.
- Nezlin, N.P., K. Kamer, E.D. Stein. 2007. Application of color infrared aerial photography to assess macroalgal distribution in an eutrophic estuary, upper Newport Bay, California.
- Yoon, V.K., E.D. Stein. 2007. Contribution of natural catchments to levels of metals, nutrients, and solids in stormwater.
- Kayhanian, M., C. Stransky, S.M. Bay, S. Lau, M.K. Stenstrom. 2007. Toxicity of urban highway runoff with respect to storm duration.
- Bay, S.M., W. Berry, P. Chapman, R. Fairey, T. Gries, E. Long, D. MacDonald, S.B. Weisberg. 2007. Evaluating consistency of best professional judgment in the application of a multiple lines of evidence sediment quality triad.
- Stein, E.D., V.K. Yoon. 2007. Dry-weather flow contribution of metals, nutrients, and solids from natural catchments.
- Stein, E.D., D. Ackerman. 2006. Dry weather water quality loadings in arid, urban watersheds of the Los Angeles Basin, California, USA.



Nezlin, N.P., P.M. DiGiacomo, E.D. Stein, D. Ackerman. 2006. Stormwater runoff plumes observed by SeaWiFS radiometer in the Southern California Bight.

Brown, J.S., S.M. Bay. 2006. Assessment of Best Management Practice (BMP) effectiveness for reducing toxicity in urban runoff.

Ritter, K.J., B.H. Jones, S.B. Weisberg, D.W. Diehl. 2006. A two-stage multivariate approach to identifying ocean outfall plumes based on temperature and salinity profiles.

Nezlin, N.P., S.B. Weisberg, D.W. Diehl. 2006. Relative availability of satellite imagery and ship-based sampling for assessment of stormwater runoff plumes in coastal southern California.

Robinson, B.J., K.J. Ritter, R.D. Ellender. 2006. A statistical appraisal of disproportional versus proportional microbial source tracking libraries.

Schiff, K.C., J.S. Brown, D.W. Diehl, D.J. Greenstein. 2006. Extent and magnitude of copper contamination in marinas of the San Diego region, California.

Zeidberg, L.D., W.M. Hamner, N.P. Nezlin, A. Henry. 2006. The fishery for California market squid, *Loligo opalescens* (Cephalopoda: Myopsida), from 1981-2003.

Ritter, K.J., M. Leecaster. 2006. Multi-lag cluster designs for estimating the semivariogram of sediment contaminants from effluent discharge offshore in San Diego.

Griffith, J.F., K.C. Schiff, G.S. Lyon. 2006. Microbiological water quality at non-human impacted reference beaches in southern California during wet weather.

Zeng, E.Y., D. Tsukada, D.W. Diehl, J. Peng, K.C. Schiff, J.A. Noblett, K.A. Maruya. 2006. Distribution and mass inventory of total dichlorodiphenyldichloroethylene in the water column of the Southern California Bight.

Caldeira, R.M.A., P. Marchesiello, N.P. Nezlin, P.M. DiGiacomo, J.C. McWilliams. 2006. Island wakes in the Southern California Bight.

Colford Jr, J.M., T.J. Wade, K.C. Schiff, C.C. Wright, J.F. Griffith, S.K. Sandhu, S. Burns, J. Hayes, M. Sobsey, G. Lovelace, S.B. Weisberg. 2006. Water quality indicators and the risk of illness in non-point source impacted recreational waters.

Stein, E.D., L.L. Tiefenthaler, K.C. Schiff. 2006. Watershed-based sources of polycyclic aromatic hydrocarbons in urban stormwater.

Sabin, L.D., J.H. Lim, K.D. Stolzenbach, K.C. Schiff. 2006. Contribution of trace metals from atmospheric deposition to stormwater runoff in a small impervious urban catchment.

Noble, R.T., J.F. Griffith, A.D. Blackwood, J.A. Fuhrman, J.B. Gregory, X. Hernandez, X. Liang, A.A. Bera, K.C. Schiff. 2006. Multi-tiered approach using quantitative polymerase chain reaction for tracking sources of fecal pollution to Santa Monica Bay, California.

Vidal, D., S.M. Bay, D. Schlenk. 2006. Effects of dietary Selenomethionine on larval Rainbow Trout (Oncorhynchus mykiss).

Lyon, G.S., D. Petschauer, E.D. Stein. 2006. Effluent discharges to the Southern California Bight from large municipal wastewater treatment facilities in 2003 and 2004.

Sabin, L.D., J.H. Lim, M.T. Venezia, A.M. Winer, K.C. Schiff, K.D. Stolzenbach. 2006. Dry deposition and resuspension of particle-associated metals near a freeway in Los Angeles.

Sanders, B.F., F. Arega, M. Sutula. 2006. Modeling the dry-weather tidal cycling of fecal indicator bacteria in surface waters of an intertidal wetland.

Boehm, A.B., S.B. Weisberg. 2006. Tidal forcing of enterococci at marine recreational beaches at fortnightly and semi-diurnal frequencies.

Ackerman, D., S.B. Weisberg. 2006. Evaluating HSPF runoff and water quality predictions at multiple time and spatial scales.

Weisberg, S.B., B. Thompson, J.A. Ranasinghe, D.E. Montagne, D.B. Cadien, D.M. Dauer, D. Diener, J. Oliver, D.J. Reish, R.G. Velarde, J.Q. Word. 2006. The level of agreement among experts applying best professional judgment to assess the condition of benthic infaunal communities.

Greenstein, D.J., S.M. Bay, B. Anderson, G.T. Chandler, J.D. Farrar, C. Keppler, B. Phillips, A. Ringwood, D. Young. 2006. Comparison of methods for acute and chronic toxicity in marine sediments.

Peng, J., E.Y. Zeng. 2006. An integrated geochemical and hydrodynamic model for tidal coastal environments.

2004. Organophosphorus pesticides in the Malibu Creek Watershed.

Vidal, D.E., S.M. Bay. 2004. Comparison of sediment quality guideline performance for predicting sediment toxicity in southern California.

Groce, A.K., M.J. Allen, A. Bolkhovitinov. 2004. Relationships among organochlorines and lipid classes in two demersal fish species from southern California.

Greenstein, D.J., S.M. Bay, J.S. Brown. 2004. Characterization of sediment toxicity in Newport Bay.

- Zeng, E.Y., D. Tsukada, D.W. Diehl. 2004. Development of a solid-phase microextraction-based method for sampling of persistent chlorinated hydrocarbons in oceanic environments.
- Nezlin, N.P., P.M. DiGiacomo. 2004. Satellite ocean color observations of stormwater runoff plumes along the San Pedro Shelf (southern California) during 1997 to 2003.
- Noblet, J.A., D.L. Young, E.Y. Zeng, S. Ensari. 2004. Use of chemical markers to identify sources of fecal indicator bacteria in the lower Santa Ana River.
- Kennison, R., K. Kamer, P. Fong. 2004. Nutrient dynamics and macroalgal blooms: A comparison of five southern California estuaries.
- Nezlin, N.P., J.J. Oram, P.M. DiGiacomo, N. Gruber. 2004. Subseasonal to interannual variations of sea surface temperature, salinity, oxygen anomaly, and transmissivity in Santa Monica Bay, California from 1987 to 1997.
- Allen, M.J., R.W. Smith, E.T. Jarvis, V. Raco-Rands, B.B. Bernstein, K.T. Herbinson. 2004. Temporal trends in southern California coastal fish populations relative to 30-year trends in oceanic conditions.
- Griffith, J.F., S.B. Weisberg, C.D. McGee. 2004. Evaluation of microbial source tracking methods using mixed fecal sources in aqueous test samples.
- Griffith, J.F., S.B. Weisberg, C.D. McGee. 2004. Evaluation of new, rapid microbiological methods for measuring recreational water quality.
- Gregorio, D., S.L. Moore. 2004. Discharges into state water quality protection areas in southern California.
- Allen, M.J., A.K. Groce, J.A. Noblet. 2004. Distribution of contamination above predator-risk guidelines in flatfishes on the Southern California Shelf in 1998.
- Zeng, E.Y., D. Tsukada, J.A. Noblet, J. Peng. 2004. Determination of polydimethylsiloxane (PDMS)-seawater distribution coefficients for polychlorinated biphenyls and chlorinated pesticides by solid-phase microextraction.
- Steinberger, A., E.D. Stein, V. Raco-Rands. 2004. Offshore oil platform discharges to the Pacific outer continental shelf along the coast of southern California in 1996 and 2000.
- Ackerman, D., E.D. Stein, K.C. Schiff. 2004. Dry-season water quality in the San Gabriel River Watershed.
- Steinberger, A., E.D. Stein. 2004. Characteristics of effluents from power generating stations in

the Southern California Bight in 2000.

Steinberger, A., E.D. Stein. 2004. Effluent discharges to the Southern California Bight from large municipal wastewater treatment facilities in 2001 and 2002.

Nezlin, N.P., E.D. Stein. 2004. Spatial and temporal patterns of remote-sensed and field-measured rainfall in southern California.

Sabin, L.D., K.C. Schiff, J.H. Lim, K.D. Stolzenbach. 2004. Atmospheric concentrations of PAH, pesticides, and other semi-volatile organic compounds in the Los Angeles coastal region.

Sabin, L.D., K.C. Schiff, J.H. Lim, K.D. Stolzenbach. 2004. Atmospheric dry deposition of trace metals in the Los Angeles coastal region.

Lu, R., K.C. Schiff, K.D. Stolzenbach. 2004. Nitrogen deposition on coastal watersheds in the Los Angeles region.

Stein, E.D., L.L. Tiefenthaler. 2004. Characterization and source identification of dry-weather metals and bacteria in Ballona Creek.

Schiff, K.C., D.W. Diehl, A.O. Valkirs. 2004. Copper emissions from antifouling paint on recreational vessels.

Lattin, G.L., C.J. Moore, A.F. Zellers, S.L. Moore, S.B. Weisberg. 2004. A comparison of neustonic plastic and zooplankton at different depths near the southern California shore.

Griffith, J.F., L.A. Aumand, I.M. Lee, C.D. McGee, L.L. Othman, K.J. Ritter, K.O. Walker, S.B. Weisberg. 2004. Comparison and verification of bacterial water quality indicator measurement methods using ambient coastal water samples.

Noble, R.T., S.B. Weisberg. 2004. A review of technologies for rapid detection of bacteria in recreational waters.

Ritter, K.J., E.A. Carruthers, C.A. Carson, R.D. Ellender, V.J. Harwood, K.S. Kingsley, C.H. Nakatsu, M.J. Sadowsky, B.L. Shear, B.R. West, J.E. Whitlock, B.A. Wiggins, J.D. Wilbur. 2004. Assessment of statistical methods used in library-based approaches to microbial source tracking.

Groce, A.K., R.H. Rosenblatt, M.J. Allen. 2003. Addition of blacklip dragonet, *Synchiropus atrilabiatus* (Garman 1899 (Pisces: Callionymidae) to the California Ichthyofauna.

Greenstein, D.J., L.L. Tiefenthaler, S.M. Bay. 2003. Toxicity of parking lot runoff after simulated rainfall.

Schiff, K.C., S.M. Bay. 2003. Impacts of stormwater discharges on the nearshore benthic

environment of Santa Monica Bay.

Mikel, T.K., R.G. Velarde, J.A. Ranasinghe, S.B. Weisberg, D.E. Montagne, D.B. Cadien, R.W. Smith, A. Dalkey. 2003. The prevalence of non-indigenous species in southern California embayments and their effects on benthic macroinvertebrate communities.

Schiff, K.C., S.M. Bay, D.W. Diehl. 2003. Stormwater toxicity in Chollas Creek and San Diego Bay, California.

Kamer, K., R.L. Kennison, P. Fong. 2003. Rates of inorganic nitrogen uptake by the estuarine green macroalgae *Enteromorpha intestinalis* and *Ulva expansa*.

Tiefenthaler, L.L., K.C. Schiff, S.M. Bay, D.J. Greenstein. 2003. Effect of antecedent dry periods on the accumulation of potential pollutants on parking lot surfaces using simulated rainfall.

Allen, M.J., A.K. Groce. 2003. First occurrence of blackspot wrasse, *Decodon melasma* Gomon 1974 (pisces: labridae), in California.

Allen, M.J., A.K. Groce. 2003. First occurrence of speckletail flounder, *Engyophrys sanctilaurentii* Jordan & Bollman 1890 (Pisces: Bothidae), in California.

Stein, E.D., M. Mattson, A.E. Fetscher, K.J. Halama. 2003. Influence of geologic setting on slope wetland classification and hydrodynamics.

Zeng, E.Y., J. Peng, D. Tsukada, T.-L. Ku. 2003. In-situ measurements of polychlorinated biphenyls in the waters of San Diego Bay.

Peng, J., E.Y. Zeng, T.-L. Ku, S. Luo. 2003. Significance of sediment resuspension and tidal exchange to reduction of polychlorinated biphenyl mass in San Diego Bay, California.

Ackerman, D., K.C. Schiff, H. Trim, M. Mullin. 2003. A characterization of water quality in the Los Angeles River.

Zeng, E.Y., J.A. Noblet. 2003. Theoretical considerations on the use of solid phase microextraction with complex environmental samples.

Noble, R.T., S.B. Weisberg, M.K. Leecaster, C.D. McGee, J.H. Dorsey, P. Vainik, V. Orozco-Borbon. 2003. Storm effects on regional beach water quality along the southern California shoreline.

Cadien, D.B., J.A. Ranasinghe. 2003. Invaders in the open sea: establishment of the New Zealand snail *Philine auriformis* in southern California.

Noblet, J.A., E.Y. Zeng, K.J. Ritter. 2003. Evaluation of PCB bioaccumulation patterns in white sea urchins *Lytechinus pictus* using multiple approaches.

Steinberger, A., E.D. Stein, K.C. Schiff. 2003. Characteristics of dredged material disposal to the Southern California Bight between 1991 and 1997.

Steinberger, A., K.C. Schiff. 2003. Characteristics of effluents from large municipal wastewater treatment facilities between 1998 and 2000.

Steinberger, A., K.C. Schiff. 2003. Characteristics of effluents from non-power industrial facilities in 2000.

Steinberger, A., K.C. Schiff. 2003. Characteristics of effluents from small municipal wastewater treatment facilities in 2000.

Bernstein, B., K.C. Schiff. 2003. The stormwater monitoring coalition: Stormwater research needs in southern California.

Ackerman, D., K.C. Schiff. 2003. Modeling stormwater mass emissions to the Southern California Bight.

Kamer, K., P. Fong, R.L. Kennison, K.C. Schiff. 2003. The relative importance of sediment and water column supplies of nutrients to the growth and tissue nutrient content of the green macroalga *Enteromorpha intestinalis* across an estuarine resource gradient.

Kamer, K., R.L. Kennison, P. Fong, K.C. Schiff. 2003. Equal loads of nutrients administered to macroalgae via pulses of differing frequency and concentration affect growth and tissue nutrients of *Enteromorpha intestinalis* and *Ulva expansa*.

Kamer, K., R.L. Kennison, P. Fong, K.C. Schiff. 2003. Nutrient limitation of the macroalga *Enteromorpha intestinalis*, across a range of water column nutrients and initial tissue nutrient status.

Tiefenthaler, L.L., K.C. Schiff. 2003. Effects of rainfall intensity and duration on first flush of stormwater pollutants.

Noble, R.T., I.M. Lee, K.C. Schiff. 2003. Inactivation of indicator bacteria from various sources of fecal contamination in seawater and freshwater.

Brown, J.S., S.A. Steinert. 2003. PAH exposure and DNA damage in flatfish from southern California bays and harbors, and the Channel Islands.

Schiff, K.C., M. Sutula. 2003. Organophosphorous pesticides in stormwater runoff from southern California.

Ritter, K.J., D.S. Birkes, N.S. Urquhart. 2003. Quantifying taxonomic richness in terms of level of

rarity assessed by a fixed count.

Vidal, D.E. 2003. Adaptation to mercury contamination in an aquatic oligochaete worm.

Bernstein, B., S.B. Weisberg. 2003. Southern California's marine monitoring system ten years after the national research council evaluation.

Ackerman, D., K.C. Schiff, S.B. Weisberg. 2003. Evaluating HSPF in an arid, urbanized watershed.

Ackerman, D., S.B. Weisberg. 2003. Relationship between rainfall and beach bacterial concentrations on Santa Monica Bay beaches.

Gossett, R., R. Baird, K. Christensen, S.B. Weisberg. 2003. Making performance-based chemistry work: How we created comparable data among laboratories as part of a southern California marine regional assessment.

Noble, R.T., D.F. Moore, M.K. Leecaster, C.D. McGee, S.B. Weisberg. 2003. Comparison of total coliform, fecal coliform, and enterococcus bacterial indicator response for ocean recreational water quality testing.

Noble, R.T., M.K. Leecaster, C.D. McGee, S.B. Weisberg. 2003. Comparison of bacterial indicator analysis methods in stormwater-affected coastal waters.

Zeng, E.Y., C.C. Chou, C. Yu. 2003. Potential application of gas chromatography tandem mass spectrometry in the measurement of coeluting isomers.

Nezlin, N.P., W.M. Hamner, L.D. Zeidberg. 2003. Remote-Sensed Analysis of the Influence of 1997-1998 El Ni.

Moore, C.J., S.L. Moore, S.B. Weisberg, G.L. Lattin, A.F. Zellers. 2003. A comparison of neustonic plastic and zooplankton abundance in southern California's coastal waters.

Greenstein, D.J., S.M. Bay, A.W. Jirik, J.S. Brown, C. Alexander. 2001. Toxicity assessment of sediment cores from Santa Monica Bay.

Zeng, E.Y., S.M. Bay, K. Tran, C. Alexander. 2001. Temporal and spatial distributions of contaminants in sediments of Santa Monica Bay, California.

Jirik, A.W., S.M. Bay, S. Asato. 2001. Interlaboratory comparison of sediment toxicity tests with the amphipod Eohaustorius estuarius.

Baca-Hovey, C., L.D. Cooper. 2001. Reproductive biology of the barred sand bass (Paralabrax nebulifer).

Noble, R.T., J.A. Fuhrman. 2001. Enterovirus detection by reverse transcriptase polymerase chain reaction from the coastal waters of southern California.

Bay, S.M., J.S. Brown, D.J. Greenstein, A.W. Jirik. 2001. Toxicity of methyl-tert-butyl ether (MTBE) to California marine life.

Schiff, K.C., P. Kinney. 2001. Tracking sources of bacterial contamination in stormwater discharges from Mission Bay, California.

Dalkey, A., M.K. Leecaster. 2001. Comparison of sediment grain size analysis among two methods and three instruments using environmental samples.

Tiefenthaler, L.L., K.C. Schiff, M.K. Leecaster. 2001. Temporal variability patterns of stormwater concentrations in urban stormwater runoff.

Leecaster, M.K. 2001. Spatial analysis of grain size in Santa Monica Bay.

Moore, S.L., D. Gregorio, M. Carreon, S.B. Weisberg, M.K. Leecaster. 2001. Composition and distribution of beach debris in Orange County, California.

Mearns, A.J., M.J. Allen, M.D. Moore. 2001. The Southern California Coastal Water Research Project - 30 years of environmental research in the Southern California Bight.

Herbinson, K.T., M.J. Allen, S.L. Moore. 2001. Historical trends in nearshore croaker (family Sciaenidae) populations in southern California from 1977 through 1998.

Moore, S.L. 2001. Age and growth of white croaker (Genyonemus lineatus) off Palos Verdes and Dana Point, California.

Noble, R.T. 2001. Enterovirus detection in storm drain-impacted waters along the shoreline of the Southern California Bight.

Schiff, K.C., S.B. Weisberg, V. Raco-Rands. 2001. Inventory of ocean monitoring in the Southern California Bight.

Brown, J.S., S.M. Bay, D.J. Greenstein, W.R. Ray. 2001. Concentrations of methyl-tert butyl ether (MTBE) in inputs and receiving waters of southern California.

Raco-Rands, V., A.n.d.r.e.a. Steinberger. 2001. Characteristics of effluents from large municipal wastewater treatment facilities in 1997.

Schiff, K.C., S.M. Bay, C. Stransky. 2001. Characterization of stormwater toxicants from an urban watershed to freshwater and marine organisms.



Stull, J.K., M.J. Allen, S.L. Moore, C.-L. Tang. 2001. Relative abundance and health of megabenthic invertebrate species on the Southern California Shelf in 1994.

Allen, M.J., J.K. Stull, S.L. Moore, C.-L. Tang. 2001. Relative abundance and health of demersal fish species on the Southern California Shelf in 1994.

Schiff, K.C., L.L. Tiefenthaler. 2001. Anthropogenic versus natural mass emissions from an urban watershed.

Leecaster, M.K., K.C. Schiff, L.L. Tiefenthaler. 2001. Assessment of efficient sampling designs for urban stormwater monitoring.

Moore, C.J., S.L. Moore, M.K. Leecaster, S.B. Weisberg. 2001. A comparison of plastic and plankton in the North Pacific central gyre.

Schiff, K.C., J. Morton, S.B. Weisberg. 2001. Retrospective evaluation of shoreline water quality along Santa Monica Bay beaches.

Leecaster, M.K., S.B. Weisberg. 2001. Effect of temporal sampling frequency on shoreline microbiology assessments.

Noble, R.T., J.H. Dorsey, M.K. Leecaster, V. Orozco-Borbon, D. Reid, K.C. Schiff, S.B. Weisberg. 2001. A regional survey of the microbiological water quality along the shoreline of the Southern California Bight.

Noble, R.T., M.K. Leecaster, D.F. Moore, K.C. Schiff, S.B. Weisberg. 2001. Relationships among bacterial indicators during a regional survey of microbiological water quality along the shoreline of the Southern California Bight.

Tran, K., D.L. Young, E.Y. Zeng. 2001. Molecular markers in urban stormwater runoff.

Moore, S.L., M.J. Allen. 1999. Distribution of anthropogenic and natural debris on the Mainland Shelf of the Southern California Bight.

Brown, J.S., S.M. Bay. 1999. Biomarkers of contaminant exposure and effect in flatfish from southern California.

Schweitzer, L., S.M. Bay. 1999. Bioaccumulation, maternal transfer, and sublethal effects of a PCB in the sea urchin, *Lytechinus pictus*.

Schiff, K.C., S.B. Weisberg, J.H. Dorsey. 1999. Microbiological monitoring of marine recreational waters in southern California.

Anderson, J.W., E.Y. Zeng, J.M. Jones. 1999. Correlation between the response of a human cell line

(P450 RGS) and the distribution of sediment PAHs and PCBs on the Palos Verdes Shelf, California.

Allen, M.J., S.L. Moore, S.B. Weisberg, A.K. Groce, M. Leecaster. 1999. Comparability of bioaccumulation within the Sanddab feeding guild in coastal southern California.

Allen, M.J., D. Diener, J. Mubarak, S.B. Weisberg, S.L. Moore. 1999. Demersal fish assemblages of the Mainland Shelf of southern California in 1994.

Allen, M.J., D. Diener, J. Mubarak, S.B. Weisberg, S.L. Moore. 1999. Megabenthic invertebrate assemblages of the Mainland Shelf of southern California in 1994.

Raco-Rands, V.. 1999. Characteristics of effluents from large municipal wastewater treatment facilities in 1996.

Raco-Rands, V.. 1999. Characteristics of effluents from nonpower industrial facilities in 1995.

Schiff, K.C. 1999. Sediment chemistry on the Mainland Shelf of the Southern California Bight.

Zeng, E.Y., C.C. Yu, K. Tran. 1999. In-situ measurements of chlorinated hydrocarbons in the water column off the Palos Verdes Peninsula, California.

Bergen, M., S.B. Weisberg, R.W. Smith, D. Cadien, A. Dalkey, D. Montagne, J.K. Stull, R.G. Velarde. 1999. Relationship between depth, latitude and sediment and the structure of benthic infaunal assemblages on the Mainland Shelf of southern California.

Smith, R.W., M. Bergen, S.B. Weisberg, D. Cadien, A. Dalkey, D. Montagne, J.K. Stull, R.G. Velarde. 1999. Benthic response index for assessing infaunal communities on the Mainland Shelf of southern California.

McGee, C.D., M.K. Leecaster, P.M. Vainik, R.T. Noble, K.O. Walker, S.B. Weisberg. 1999. Comparison of bacterial indicator measurements among Southern California Marine Monitoring.

Bergen, M., D. Cadien, A. Dalkey, D. Montagne, R.W. Smith, J.K. Stull, R.G. Velarde, S.B. Weisberg. 1999. Assessment of benthic infauna on the Mainland Shelf of southern California.

Santangelo, R.V., D.W. Diehl, S.B. Weisberg. 1999. Spatial characterization of four water column parameters on the Mainland Shelf of southern California in July 1994.

Tran, K., E.Y. Zeng. 1999. Use of equilibrium partitioning theory to determine route(s) of chlorinated hydrocarbon uptake in hornyhead turbot.

Schiff, K.C., M.J. Allen. 1997. Bioaccumulation of chlorinated hydrocarbons in livers of flatfishes from the Southern California Bight.

- Schweitzer, L., S.M. Bay. 1997. Relative toxicity of PCB congeners to sea urchin embryos.
- Montagne, D.E., M. Bergen. 1997. Quality control and assessment of infaunal identification and enumeration: the SCBPP experience.
- Zeng, E., S.M. Bay, C. Vista, C. Yu, D.J. Greenstein. 1997. Bioaccumulation and toxicity of polychlorinated biphenyls in sea urchins exposed to contaminated sediments.
- Allen, M.J., S.L. Moore. 1997. Recurrent groups of demersal fishes on the Mainland Shelf of southern California in 1994.
- Allen, M.J., S.L. Moore. 1997. Recurrent groups of megabenthic invertebrates on the Mainland Shelf of southern California in 1994.
- Raco-Rands, V.. 1997. Characteristics of effluents from large municipal wastewater treatment facilities in 1995.
- Raco-Rands, V.. 1997. Characteristics of effluents from power generating stations in 1995.
- Raco-Rands, V.. 1997. Characteristics of effluents from small municipal wastewater treatment facilities in 1995.
- Schiff, K.C. 1997. Review of existing stormwater monitoring programs for estimating bight-wide mass emissions from urban runoff.
- Bay, S.M., K.C. Schiff. 1997. Impacts of stormwater discharges on the nearshore environment of Santa Monica Bay.
- Zeng, E., D. Cheng, A. Khan, C. Vista. 1997. Validity of using linear alkylbenzenes as markers of sewage contamination with interference from tetrapropylene-based alkylbenzenes.
- Schiff, K.C., S.B. Weisberg. 1997. Iron as a reference element for determining trace metal enrichment in California coastal shelf sediments.
- Bay, S.M., D.J. Greenstein, A. Jirik, A. Zellers. 1997. Toxicity of stormwater from Ballona and Malibu Creeks.
- Tran, K., E. Zeng. 1997. Laboratory and field testing on an INFILTREX 100 pump.
- Cross, J.N., S.B. Weisberg. 1996. The Southern California Bight Pilot Project: An overview.