Liesl Tiefenthaler

Senior Research Technician
Biology Department
Southern California Coastal Water Research Project

Education

B.S., marine biology, California State University, Long Beach, 1991.

Professional Experience

Senior Research Technician, Southern California Coastal Water Research Project. Costa Mesa, CA. 2009-present

Scientist, Southern California Coastal Water Research Project. Costa Mesa, CA. 2006-2009

Senior Research Technician, Southern California Coastal Water Research Project. Costa Mesa, CA. 1999-2006

Research Technician, Southern California Coastal Water Research Project. Costa Mesa, CA. 1994-1999

Bioassay Technician, Marine Biological Consultants Applied Environmental Sciences. Costa Mesa, CA. 1992-1993

Marine Biology Camp Director, City of Long Beach Department of Parks and Recreation. Long Beach, CA. 1988-1991

Honors and Awards

Phi Eta Sigma, Alpha Lambda Delta (National Scholastic Honor Society)
Dean's List, California State University, Long Beach

Professional Societies and Certifications

CRAM Leadership Panel (2022-present)
Society for Freshwater Science (2021-present)
ArcGIS Online and ArcGIS Pro Spatial Analysis and Data Science Certificates (2019-present)
Episodic River CRAM (2018)
California Rapid Assessment Method (CRAM) (2004-2018)
CRAM for Wetlands (2016)
National Society of Environmental Toxicology and Chemistry (Southern California/Southwest Chapter)
Southern California Academy of Sciences
Scuba Diver, Research Scuba Diver
American Red Cross (CPR, Advanced First Aid, Advanced Lifesaving)
Certified Forklift Operator
Range Safety (RSO) Certified at Marine Corp Base Camp Pendleton (2012-2019)

Journal Articles

Schiff, K.C., L.L. Tiefenthaler, J. Westfall, M. Mori, K. Kelly, R. Kempster, A. Latker, E. Moon, N. Searing, D. Tang, J. Bennett. 2026. Quantifying ocean monitoring effort and cost in the Southern California Bight over the last 25 years. *Journal of Environmental Management* 397:128383.

Harvey, M.E., S.N. Giddings, E.D. Stein, J.A. Crooks, C. Whitcraft, T. Gallien, J.L. Largier, L.L. Tiefenthaler, H. Meltzer, G. Pawlak, K. Thorne, K. Johnston, R. Ambrose, S.C. Schroeter, H.M. Page, H. Elwany. 2020. Effects of Elevated Sea Levels and Waves on Southern California Estuaries During the 2015–2016 El Niño. *Estuaries and Coasts* DOI:10.1007/s12237-019-00676-1.

Schiff, K.C., L.L. Tiefenthaler, S.M. Bay, D.J. Greenstein. 2016. Effects of Rainfall Intensity and Duration on the First Flush from Parking Lots. *Water* 8:320.

Lao, W., L.L. Tiefenthaler, D.J. Greenstein, K.A. Maruya, S.M. Bay, K. Ritter, K.C. Schiff. 2012. Pyrethroids in southern California coastal sediments. *Environmental Toxicology and Chemistry* 31:1649-1656.

Tiefenthaler, L.L., E.D. Stein, K.C. Schiff. 2011. Levels and patterns of fecal indicator bacteria in stormwater runoff from homogenous land use sites and urban watersheds. *Journal of Water and Health* 9:279-290.

Schiff, K.C., L.L. Tiefenthaler. 2011. Seasonal flushing of pollutant concentrations and loads in

urban stormwater. *Journal of the American Water Resources Association* 47:136-142.

Tiefenthaler, L.L., E.D. Stein, G.S. Lyon. 2009. Fecal indicator bacteria (FIB) levels during dry weather from southern California reference streams. *Environmental Monitoring and Assessment* 155:477-492.

Tiefenthaler, L.L., E.D. Stein, K.C. Schiff. 2008. Watershed and land use-based sources of trace metals in urban stormwater. *Environmental Toxicology and Chemistry* 27:277-287.

Stein, E.D., L.L. Tiefenthaler, K.C. Schiff. 2006. Watershed-based sources of polycyclic aromatic hydrocarbons in urban storm water. *Environmental Toxicology and Chemistry* 25:373-385.

Stein, E.D., L.L. Tiefenthaler. 2005. Dry-weather metals and bacteria loading in an arid, urban watershed: Ballona Creek, California. *Water, Air, and Soil Pollution* 164:367-382.

Greenstein, D.J., L.L. Tiefenthaler, S.M. Bay. 2004. Toxicity of parking lot runoff after application of simulated rainfall. *Environmental Contamination and Toxicology* 47:199-206.

Lu, R., R.P. Turco, K. Stolzenbach, S.K. Friedlander, C. Xiong, K.C. Schiff, L.L. Tiefenthaler, G. Wang. 2003. Dry deposition of airborne trace metals on the Los Angeles basin and adjacent coastal waters. *Journal of Geophysical Research* 108:11.1-11.24.

Leecaster, M.K., K.C. Schiff, L.L. Tiefenthaler. 2002. Assessment of efficient sampling designs for urban stormwater monitoring. *Water Research* 36:1556-1564.

Greenstein, D.J., L.L. Tiefenthaler. 1997. Reproduction and population dynamics of Grandidierella japonica (Stephensen) (Crustacea: Amphipoda) in upper Newport Bay, California. *Bulletin of the Southern California Academy of Sciences* 96:34-42.

Book Chapters

Bay, S.M., K.C. Schiff, D.J. Greenstein, L.L. Tiefenthaler. 1997. Stormwater Runoff of Santa Monica Bay: Toxicity, Sediment Quality, and Benthic Community Impacts. in: O.T. Magoon, H. Converse, B. Baird, M. Miller-Henson (eds.), *California and the World Ocean '97* pp. 900-921. American Society of Civil Engineers. Reston, VA.

Technical Reports

Mazor, R.D., J.S. Brown, L.L. Tiefenthaler, A. Le Compte Santiago, G. Keating. 2025. Hydrologic assessment of reference streams in the Los Angeles region. Technical Report 1412. Southern California Coastal Water Research Project. Costa Mesa, CA.

Tiefenthaler, L.L., M. Sutula, J.F. Griffith, M.R. Raith. 2016. Microbiological Water Quality at Reference Beaches and an Adjoining Estuary in Southern California during a Prolonged Drought. Technical Report 936. Southern California Coastal Water Research Project Authority. Costa Mesa, CA.

Tiefenthaler, L.L., M. Sutula, Y. Cao, J.F. Griffith, M.R. Raith, C. Beck, R. Christoph, J. Shrake. 2015. Wet and Dry Weather Natural Background Concentrations of Fecal Indicator Bacteria in San Diego, Orange, and Ventura County, California Streams. Technical Report 862. Southern California Coastal Water Research Project. Costa Mesa, CA.

Tiefenthaler, L.L., M. Sutula, Y. Cao, J.F. Griffith, M.R. Raith, C. Beck, R. Christoph, J. Shrake. 2015. Wet and Dry Weather Natural Background Concentrations of Fecal Indicator Bacteria in San Diego, Orange, and Ventura County, California Streams (Appendix A). Technical Report 862.A. Southern California Coastal Water Research Project. Costa Mesa, CA.

Tiefenthaler, L.L., M. Sutula, Y. Cao, J.F. Griffith, M.R. Raith, C. Beck, R. Christoph, J. Shrake. 2015. Wet and Dry Weather Natural Background Concentrations of Fecal Indicator Bacteria in San Diego, Orange, and Ventura County, California Streams (Appendix B). Technical Report 862.B. Southern California Coastal Water Research Project. Costa Mesa, CA.

Tiefenthaler, L.L., M. Sutula, Y. Cao, J.F. Griffith, M.R. Raith, C. Beck, R. Christoph, J. Shrake. 2015. Wet and Dry Weather Natural Background Concentrations of Fecal Indicator Bacteria in San Diego, Orange, and Ventura County, California Streams (Appendix C). Technical Report 862.C. Southern California Coastal Water Research Project. Costa Mesa, CA.

Tiefenthaler, L.L., M. Sutula, Y. Cao, J.F. Griffith, M.R. Raith, C. Beck, R. Christoph, J. Shrake. 2015. Wet and Dry Weather Natural Background Concentrations of Fecal Indicator Bacteria in San Diego, Orange, and Ventura County, California Streams (Appendix D). Technical Report 862.D. Southern California Coastal Water Research Project. Costa Mesa, CA.

Schiff, K.C., R. Gossett, K. Ritter, L.L. Tiefenthaler, N. Dodder, W. Lao, K.A. Maruya. 2011. Southern California Bight 2008 Regional Monitoring Program: III. Sediment Chemistry. Technical Report 661. Southern California Coastal Water Research Project. Costa Mesa, CA.

Schiff, K.C., R. Gossett, K. Ritter, L.L. Tiefenthaler, N. Dodder, W. Lao, K.A. Maruya. 2011. Southern California Bight 2008 Regional Monitoring Program: III. Sediment Chemistry (Appendix A). Technical Report 661.A. Southern California Coastal Water Research Project. Costa Mesa, CA.

Schiff, K.C., R. Gossett, K. Ritter, L.L. Tiefenthaler, N. Dodder, W. Lao, K.A. Maruya. 2011. Southern California Bight 2008 Regional Monitoring Program: III. Sediment Chemistry (Appendix B). Technical Report 661.B. Southern California Coastal Water Research Project. Costa Mesa, CA.

Schiff, K.C., R. Gossett, K. Ritter, L.L. Tiefenthaler, N. Dodder, W. Lao, K.A. Maruya. 2011. Southern California Bight 2008 Regional Monitoring Program: III. Sediment Chemistry (Appendix C). Technical Report 661.C. Southern California Coastal Water Research Project. Costa Mesa, CA.

Schiff, K.C., R. Gossett, K. Ritter, L.L. Tiefenthaler, N. Dodder, W. Lao, K.A. Maruya. 2011. Southern California Bight 2008 Regional Monitoring Program: III. Sediment Chemistry (Appendix D). Technical Report 661.D. Southern California Coastal Water Research Project. Costa Mesa, CA.

Schiff, K.C., R. Gossett, K. Ritter, L.L. Tiefenthaler, N. Dodder, W. Lao, K.A. Maruya. 2011. Southern California Bight 2008 Regional Monitoring Program: III. Sediment Chemistry (Appendix E). Technical Report 661.E. Southern California Coastal Water Research Project. Costa Mesa, CA.

Tiefenthaler, L.L., E.D. Stein, G.S. Lyon. 2008. Fecal Indicator Bacteria (FIB) levels during dry weather from southern California reference streams. Technical Report 542. Southern California Coastal Water Research Project. Costa Mesa, CA.

Stein, E.D., L.L. Tiefenthaler, K.C. Schiff. 2007. Sources, patterns and mechanisms of storm water pollutant loading from watersheds and land uses of the greater Los Angeles area, California, USA. Technical Report 510. Southern California Coastal Water Research Project. Costa Mesa, CA.

Stein, E.D., L.L. Tiefenthaler. 2004. Characterization of dry weather metals and bacteria in Ballona Creek. Technical Report 427. Southern California Coastal Water Research Project. Westminster, CA.

Schiff, K.C., L.L. Tiefenthaler. 2003. Contributions of organophosphorus pesticides from residential land uses during dry and wet weather. Technical Report 406. Southern California Coastal Water Research Project. Westminster, CA.

Stolzenbach, K., R. Lu, C. Xiong, S. Friedlander, R. Turco, K.C. Schiff, L.L. Tiefenthaler. 2001. Measuring and modeling of atmospheric deposition on Santa Monica Bay and the Santa Monica Bay Watershed. Technical Report 346. Southern California Coastal Water Research Project. Westminster, CA.

Tiefenthaler, L.L., K.C. Schiff, S.M. Bay. 2001. Characteristics of parking lot runoff produced by simulated rain. Technical Report 343. Southern California Coastal Water Research Project. Westminster, CA.

Bay, S.M., K.C. Schiff, D.J. Greenstein, L.L. Tiefenthaler. 1997. Stormwater runoff effects on Santa Monica Bay: toxicity, sediment quality, and benthic community impacts. Technical Report 300. Conference Proceedings for California and the World Ocean '98.

Annual Report Articles

Sengupta, A., M. Sutula, K. McLaughlin, M.D.A. Howard, L.L. Tiefenthaler, T. Von Bitner. 2013. Terrestrial nutrient loads and fluxes to the Southern California Bight, USA.

Lao, W., L.L. Tiefenthaler, D.J. Greenstein, K.A. Maruya, S.M. Bay, K. Ritter, K.C. Schiff. 2011. Pyrethroids in southern California coastal sediments.

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

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

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.

Tiefenthaler, L.L., E.D. Stein, K.C. Schiff. 2007. Watershed and land use-based sources of trace metals in urban stormwater.

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

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

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

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.

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

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

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.

Tiefenthaler, L.L., M.A. Skracic. 1996. Development of sediment bioassays using newly settled California halibut (Paralichthys californicus).