

CURRICULUM VITAE

John W. Hunt

Education

1979 **B.A.**, Geography, University of California, Berkeley

1987 **M.S.**, Marine Science, Moss Landing Marine Laboratories

2009 **Ph.D.** Environmental Studies, University of California, Santa Cruz

Dissertation: *Monitoring and resource management: Streams, land cover, and the use of water quality information in public policy*

- US EPA Science to Achieve Results (STAR) Fellowship
- University of California Regents Fellowship

Professional Employment

Research Toxicologist, UC Davis Dept of Environmental Toxicology (2012 to present)

Project lead for central coast regional assessments of landscape and aquatic habitat health. Coordinate with staff and managers of the Central Coast Regional Water Quality Control Board to assess landscape, habitat, water quality and ecological data to address the Board's vision goals and management information needs. Translate resource management objectives into specific assessment questions, select appropriate metrics and indices to interpret monitoring data collected over the past decade, devise schema to aggregate metrics into broad indicators of habitat and landscape health, and present the results in an automatically updating website that makes the most vital information readily available to Regional Board and other water resource managers and the public.

Project Manager, Greater Monterey County Storm Water Resource Plan (2017 to 2019)

Write a successful proposal and manage the project to use hydrologic modeling and quantitative analysis to identify opportunities and evaluate projects to characterize, capture, treat, store and reuse urban and agricultural storm water to provide benefits for water supply, water quality, flood protection, habitat enhancement and social opportunity.

Chief Science Officer, Aqaix (current)

Provide scientific direction, conceptual models, data sets and connections to the scientific community to develop a water data platform that integrates information from multiple sources to drive advanced analytics of water management issues.

Director, Central Coast Water Resources Center (current)

Provide leadership, strategic direction, and program management to the CCWRC. Build partnerships with state and local agencies, municipalities, and agricultural and environmental communities to create broad-based programs to assess water quality, implement treatment practices, improve aquatic habitat, and promote innovative water supply options for the central coast.

Co-Director, Marine Pollution Studies Laboratory at Granite Canyon (1995 – 2011), and

Specialist (Research Faculty), Dept of Environmental Toxicology, UC, Davis (1997 – 2011)

Manage a small marine laboratory (staffing level from 8 to 23 over the years), including program planning, budget development, staff supervision, maintenance oversight,

proposal writing and journal publication for an entirely grant-funded research facility that has operated successfully for over 25 years.

Design, obtain funding for, and conduct research projects to assess ambient water and sediment quality in marine, estuarine, and freshwater environments. Design regional and statewide water quality monitoring programs and facilitate their external scientific review. Provide coordination between State and Regional Water Boards, stakeholders, and partner programs to integrate goals and data from multiple sources into policy-relevant information for resource management.

Associate Specialist, University of California, Santa Cruz. (1992 – 1997)

Conduct research projects on the toxicity of estuarine sediments and evaluate contaminant sources in tributary watersheds. Develop experimental approaches to compare field-collected test sediments with those from reference sites. Develop toxico/chemical techniques to identify chemicals causing toxicity in environmental samples containing complex chemical mixtures.

Assistant Specialist, University of California, Santa Cruz. (1987 – 1992)

Develop toxicity test methods for abalone, mysids, topmelt, and giant kelp, and produce protocols for those tests that are currently used in US EPA and California State Water Resources Control Board waste-water monitoring programs.

Deputy Superintendent, Monterey Bay National Marine Sanctuary (2011 – 2012)

Direct the MBNMS resource protection and science programs to promote ecosystem-based management of the sanctuary. Supervise resource protection and water quality protection staff, direct the coordination of research program objectives with resource protection needs, assist the superintendent and national office directors with decisions on program direction, and collaborate with outside scientists, agency managers, and stakeholders to advance the mission of the sanctuary.

Service and Scientific Advisory Committees

Expert Review Panel for the Eastern San Joaquin Surface Water Monitoring Program, Chair, 2020 - 2021

Science and Land Management Advisory Council, Big Sur Land Trust, Member, current

Pesticides Visualization Advisory Team, San Francisco Estuary Institute, Member, current

Santa Cruz County Commission on the Environment, Chair and Commissioner for 2nd District, 2013 to present.

Santa Cruz County Local Agency Formation Commission, Alternate Public Member, current.

Research Activity Panel, Monterey Bay National Marine Sanctuary, Chair and Water Quality Representative, 2007 to present.

Sanctuary Advisory Council, Monterey Bay National Marine Sanctuary, Research Primary Member, 2008 to 2010; 2012 to present.

Regional Transportation Commission Bicycle Advisory Committee, member, current

La Selva Beach Recreation and Park District, Chair (2012 to 2018) and Treasurer (2010 – 2012)

Pinto Lake Restoration Project, Technical Advisory Committee, Member, 2017 to 2018.

Water Quality Protection Program Committee, Monterey Bay National Marine Sanctuary, Research Member, 2012 to present.

California Water Quality Monitoring Council, Ocean Health Workgroup member, 2012 to 2014.

Central Coast Regional Water Quality Control Board, Technical Advisory Committee for Rapid Assessment Methodology, Member, 2013 to 2015.

US EPA and CA State Water Resources Control Board Healthy Streams Partnership, Technical Advisory Panel Member, 2012 to 2015.

Monterey Bay Integrated Regional Ocean Discharge Monitoring Program, core technical planning team member (2012 to 2014).

Agricultural Advisory Panel, Agricultural Waiver Order, Regional Water Quality Control Board, Central Coast Region, Science Member, 2004 and 2009 permit cycles

Farm Water Quality Planning Project, UC Cooperative Extension, Committee Member

Statewide Aquatic Life Assessment Monitoring Design Committee, California Surface Water Ambient Monitoring Program, Member

Technical Advisory Committee, Central Coast Water Quality Data Synthesis, Assessment, and Management (SAM) Project, Member

Technical Advisory Committee, Non-point Source Pollution Projects Fund and Monitoring Fund, Regional Water Quality Control Board, Central Coast Region, Member

Scientific Planning and Review Committee, California Surface Water Ambient Monitoring Program, State Water Resources Control Board, Organizer and Facilitator

La Selva Beach Improvement Association, President, 2001 – 2002

Board of Directors, Society of Env Toxicology and Chemistry, N California Chapter, Elected Member

Annual Meeting Committee, Society of Env Toxicology and Chemistry, N California Chapter, Member

Technical Advisory Committee, Pescadero-Butano Watershed Assessment Project, San Mateo County Resource Conservation District, Invited Member

Scientific Advisory Group, Surface Waters Ambient Monitoring Program, California State Water Resources Control Board, Invited Member

Society of Environmental Toxicology and Chemistry Technical Workshop on Toxicity Identification and Reduction Evaluations, held at Pensacola, Florida, sponsored by the U.S. EPA and American Petroleum Institute, Invited Participant.

U.S. EPA and Society of Environmental Toxicology and Chemistry course on whole effluent toxicity testing, Instructor.

Reports

44. Armbrust K, Costantino J, **Hunt J**, Menzie C, Parker D. 2020. Findings and Recommendations of the Expert Review Panel for the Eastern San Joaquin Surface Water Monitoring Program. Southern California Coastal Water Research Project Technical Report #1153.
43. **Hunt JW**, Robinson SM, Clark RP, Endris CA, Gregory JN, Hammerstrom KK, Null KA and O'Connor KC. 2019. Storm Water Resource Plan for the Greater Monterey County Integrated Regional Water Management Region. California State Water Resources Control Board. 289 pp.
42. Worcester KR, Paradies DM, **Hunt JW**. 2015. California Central Coast Healthy Watersheds Project – Part 1: Report Cards for Scoring Water Quality Data to Characterize Health and Change. State Water Resources Control Board, SWAMP-MR-RB3-2015-0002. 44 pp.
41. **Hunt JW**, Phillips B, Anderson B, Siegler K, Lamerdin C, Sigala M, Fairey R, Swenson S, Ichikawa G, Bonnema A, Crane D. 2012. Statewide perspective on chemicals of concern and connection between stream water quality and land use. Surface Water Ambient Monitoring Program – Stream Pollution Trends (SPoT) Program. California State Water Resources Control Board. Sacramento, CA.
40. Anderson B, **Hunt, J**, Markiewicz, D, Larsen, K. 2011. Toxicity in California Waters. Surface Water Ambient Monitoring Program. California State Water Resources Control Board. Sacramento, CA.
39. **Hunt JW**, Markiewicz D, Pranger M. 2010. Summary of Toxicity in California Waters: 2001 – 2009. Surface Water Ambient Monitoring Program. California State Water Resources Control Board. Sacramento, CA.
38. Anderson, BS, Phillips, BM, Hunt, JW, Largay, B, Shihadeh, R, Berretti, M. 2008. Pesticide and toxicity reduction using vegetated treatment systems and Landguard OP-A. Data Summary and Final Report. Central Coast Regional Water Quality Control Board, San Luis Obispo, CA. 70 pp.
37. Phillips BM, Anderson BS, **Hunt JW**. 2008. RMP Sediment TIE Study 2007-2008: Using Toxicity Identification Evaluation (TIE) Methods to Investigate Causes of Sediment Toxicity to Amphipods. Data Summary and Final Report. San Francisco Estuary Institute, Oakland, CA.
36. **Hunt JW**, Anderson BS, Phillips BM, Largay B, Watson F, Harris K, Hanson E, Beretti M, Schafer R, Brown K, Bern AL. 2007. Effectiveness of agricultural management practices in reducing concentrations of pesticides associated with toxicity to aquatic organisms. Data Summary and Final Report. Central Coast Regional Water Quality Control Board, San Luis Obispo, CA.
35. Anderson, BS, **Hunt, JW**, Phillips, BM, Tjeerdema, RS. 2007. Navigating the TMDL process: sediment toxicity. Report # 02-WSM-2; Water Environment Research Foundation, Alexandria, VA.
34. Nicely P, Cover M, Taberski K, White N, **Hunt J**, Krottje P, Moore S. 2007. Water quality monitoring and bioassessment in nine San Francisco Bay Region watersheds: Walker Creek,

Lagunitas Creek, San Leandro Creek, Wildcat Creek/San Pablo Creek, Suisun Creek, Arroyo Las Positas, Pescadero Creek/Butano Creek, San Gregorio Creek, and Stevens Creek/Permanente Creek. Oakland, CA: Surface Water Ambient Monitoring Program, San Francisco Bay Regional Water Quality Control Board.

33. Anderson BS, Phillips BM, **Hunt JW**, Tjeerdema RS. 2006. Water and sediment quality in four central coast watersheds: Chualar Creek, Watsonville Slough, Pacheco Creek, and Uvas Creek. California State Water Resources Control Board and Central Coast Regional Water Quality Control Board.
32. **Hunt JW**, Anderson BS, Phillips BM, Tjeerdema RS. 2005. Salinas River Sediment Toxicity Survey. California State Water Resources Control Board and Central Coast Regional Water Quality Control Board.
31. **Hunt J**, Taberski K, White N, Crane D. 2005. Chemical Concentrations in Fish Tissues from Selected Reservoirs and Coastal Areas in the San Francisco Bay Region. Final Report. Oakland, CA: Surface Water Ambient Monitoring Program, San Francisco Bay Regional Water Quality Control Board.
30. Anderson, BS, Nicely, PA, Phillips, BM, **Hunt, JW**. 2004. Sediment quality assessment study at the B Street/Broadway Piers, Downtown Anchorage, and Switzer Creek, San Diego Bay, California. Technical report, Regional Water Quality Control Board, San Diego, CA. 142 pp w/Appendices.
29. Phillips, BM, Nicely, PA, Anderson, BS, **Hunt, JW**, Tjeerdema, RS, Beegan, B, Palmer, FH. 2004. Marine Bioassay Project Twelfth Report. State Water Resources Control Board, Sacramento, CA. 42 pp w/Appendices.
28. Phillips, BM, Nicely, PA, Anderson, BS, **Hunt, JW**, Tjeerdema, RS, Beegan, B, Palmer, FH. 2003. Marine Bioassay Project Eleventh Report. State Water Resources Control Board, Sacramento, CA. 55 pp w/Appendices.
27. Anderson, B.S., Nicely, P.A., **Hunt, J.W.** 2001. Guidance on Application of Freshwater and Marine Aquatic Toxicity Tests for Hazard Assessment in California Waters. Technical Report to the Office of Environmental Health Hazard Assessment, California Environmental Protection Agency. pp 165.
26. Nicely, P.A., **Hunt, J.W.**, Anderson, B.S., Tjeerdema, R.S. 2001. Review of Data Requirements for 303(d) Listing Decisions. Technical Report to the California State Water Resources Control Board, Division of Water Quality, Sacramento, CA. pp 44.
25. Anderson, B.S., Phillips, B.M., **Hunt, J.W.**, and Sericano, J. 2000. Investigations of chemicals associated with amphipod mortality at two regional monitoring program stations. Technical report to the San Francisco Estuary Institute – Regional Monitoring Program.
24. Phillips, B.M., Anderson, B.S., **Hunt, J.W.** 2000. Investigation of causes of sediment toxicity in the San Francisco Bay/Delta. Technical report to the San Francisco Estuary Institute – Regional Monitoring Program.
23. Phillips, B.M., Nicely, P.A., **Hunt, J.W.**, Anderson, B.S., Tjeerdema, R., Palmer, S.E., Palmer, F.H. 2000. Marine Bioassay Project Tenth Report: Metal, Ammonia, Sediment, and artificial salt toxicity evaluations on marine test organisms. Final Report to the State Water Resources Control Board, Sacramento, CA. pp 127.

22. Anderson B.S., Phillips, B.M., **Hunt, J.W.**, Stephenson, M.D., Puckett, H.M., Reeve, R., and Palmer, F.H. 1998. Marine Bioassay Ninth Project. Final Report to the State Water Resources Control Board, Sacramento, CA. pp 50.
21. **Hunt, J.W.**, Anderson, B.A., Phillips, B.P., Newman, J., Tjeerdema, R.S., Taberski, K., Wilson, C.J., Stephenson, M., Puckett, H.M., Fairey, R., and Oakden, J. 1998. Sediment quality and biological effects in San Francisco Bay; Bay Protection and Toxic Cleanup Program final technical report. State Water Resources Control Board, Sacramento, California.
20. **Hunt, J.W.**, Anderson, B.A., Tjeerdema, R.S., Phillips, B.P., Newman, J., Stephenson, M., Puckett, H.M., Fairey, R., Smith, R.W. and Taberski, K. 1998. Evaluation and use of sediment reference sites and toxicity tests in San Francisco Bay. State Water Resources Control Board, Sacramento, California.
19. Anderson, B.S., **Hunt, J.W.**, Phillips, B.M., Newman, J., Tjeerdema, R.S., Fairey, R., Oakden, J., Wilson, C.J., Kapahi, G., Stephenson, M.D., Puckett, M.H., Lyons, M., Birosik, S. 1998. Chemistry, toxicity and benthic community conditions in selected sediments of the Los Angeles Region. Final Report, State Water Resources Control Board, Sacramento California. pp 232.
18. Phillips, B.M., Anderson, B.S., **Hunt, J.W.**, Tjeerdema, R.S., Fairey, R., Oakden, J., Wilson, C.J., Kapahi, G., Stephenson, M.D., Puckett, H.M., Dawson, S. 1998. Chemistry, toxicity and benthic community conditions in selected sediments of the Santa Ana Region. Final Report, State Water Resources Control Board, Sacramento California. pp 100.
17. **Hunt, J.W.**, Anderson, B.S., Phillips, B.M., Piekarski, W.J., Englund, M., Tjeerdema, R.S. and deVlaming, V. 1998. Aquatic toxicity in the Pajaro River watershed: tributary sources and chemicals of concern. State Water Resources Control Board, Sacramento, California.
16. Jacobi, M., Fairey, R.F., Roberts, C., Clark, R., Downing, J., Anderson, B.S., **Hunt, J.W.**, Tjeerdema, R.S., Oakden, J., Wilson, C.J., Kapahi, G., Stephenson, M.D., Puckett, H.M. 1998. Chemistry, toxicity and benthic community conditions in selected sediments of the North Coast Region. Final Report, State Water Resources Control Board, Sacramento California. pp 85.
15. Downing, J., Jacobi, M., Fairey, R.F., Roberts, C., Clark, R., Anderson, B.S., **Hunt, J.W.**, Tjeerdema, R.S., Oakden, J., Wilson, C.J., Kapahi, G., Stephenson, M.D., Puckett, H.M. 1998. Chemistry, toxicity and benthic community conditions in selected sediments of the Central Coast Region. Final Report, State Water Resources Control Board, Sacramento California. pp 75.
14. Anderson, B.S., **Hunt, J.W.**, Tudor, S., Newman, J., Tjeerdema, R.S., Fairey, R., Oakden, J., Bretz, C., Wilson, C.J., LaCaro, F., Stephenson, M.D., Puckett, H.M., Long, E.R., Fleming, T., and K. Summers. 1997. Chemistry, toxicity and benthic community conditions in sediments of selected southern California bays and estuaries. Final Report, State Water Resources Control Board, Sacramento California. pp 140.
13. Phillips, B.M., Anderson, B.S., and **Hunt, J.W.** 1997. Investigating classes of compounds associated with sediment toxicity at regional monitoring program river stations. *In*: RMP – Regional Monitoring program for Trace Substances. 1996 Annual Report. San Francisco Estuary Institute. Richmond, CA. pp 119-128.
12. Fairey, R.S., Bretz, C., Lamerdin, S., **Hunt, J.W.**, Anderson, B.S., Tudor, S., Wilson, C.J., LaCaro, F., Stephenson, M.D., Puckett, H.M., Long, E.R. 1996. Chemistry, toxicity, and benthic community conditions of selected sediments of the San Diego Bay region. Final Report. State Water Resources Control Board, Sacramento California. pp 162.
11. **Hunt, J.W.**, B.S. Anderson, S.L. Tudor, M.D. Stephenson, H.M. Puckett, F.H. Palmer, and M. Reeve. 1996. Marine Bioassay Project Eighth Report: Refinement and implementation of four

effluent toxicity testing methods using indigenous marine species. California State Water Resources Control Board Report Number 96-4WQ. Sacramento, CA. 109 pp.

10. Thompson, B., **Hunt, J.W**, Anderson, B.S. 1995. Patterns in sediment toxicity: 1991-1995. In: Regional Monitoring Program for trace substances - RMP 1995 annual report. San Francisco Estuary Institute. 324 pp.
9. Sapudar, R.A., C.J. Wilson, M.L. Reid, E.R. Long, M. Stephenson, H.M. Puckett, R.A. Fairey, **J.W. Hunt**, B.S. Anderson, D.R. Holstad, J.W. Newman, and S. Birosik. 1994. Sediment chemistry and toxicity in the vicinity of the Los Angeles and Long Beach Harbors. Project report for the State Water Resources Control Board and the National Oceanic and Atmospheric Administration. 77 pp.
8. Flegal, A.R., R.W. Riseborough, B.S. Anderson, **J.W. Hunt**, S. Anderson, J. Oliver, M. Stephenson, and R. Packard. 1994. San Francisco Estuary Pilot Regional Monitoring Program: Sediment Studies. Final Report to the San Francisco Regional Water Quality Control Board. July 1994. 125 pp
7. Anderson, B.S., **J.W. Hunt**, H.R. McNulty, M. Stephenson, F.H. Palmer, M. Reeve, and D.L. Denton. 1993. Marine Bioassay Project Seventh Report: Refinement of effluent toxicity testing protocols for four marine species. Water Resources Control Board Report No. 94-2WQ. Sacramento, CA. 124 pp.
6. **Hunt, J.W.**, B.S. Anderson, S.L. Turpen, H.R. Barber, M. Martin, D.L. McKeown, F.H. Palmer. 1991. Marine Bioassay Project Sixth Report: Interlaboratory comparisons and protocol development with four marine species. California State Water Resources Control Board Report Number 91-6WQ. Sacramento, CA. 204 pp.
5. Anderson, B.S., **J.W. Hunt**, S.L. Turpen, A.R. Coulon, M. Martin, D.L. McKeown and F.H. Palmer. 1990. Procedures manual for conducting toxicity tests developed by the Marine Bioassay Project. California State Water Resources Control Board 90 - 10WQ. Sacramento, California. 113 p.
4. Anderson, B.S., **J.W. Hunt**, S.L. Turpen, A.R. Coulon, M. Martin, and F.H. Palmer. 1990. Marine Bioassay Project - Fifth Report - Protocol development and interlaboratory testing with complex effluents. California State Water Resources Control Board. Sacramento, California. 183 p.
3. **Hunt, J.W.**, B.S. Anderson, S.L. Turpen, A.R. Coulon, M. Martin, J.J. Janik, and F.H. Palmer. 1989. Marine Bioassay Project - Fourth Report -Experimental evaluation of effluent toxicity testing protocols with giant kelp, mysids, red abalone, and topmelt. California State Water Resources Control Board. Sacramento, California. 143 p.
2. Anderson, B.A., **J.W.Hunt**, M. Martin, and F.H. Palmer. 1987. Marine Bioassay Project - Third Report - Protocol development: reference toxicant and initial complex effluent testing. California State Water Resources Control Board. Sacramento, California. 130 p.
1. Martin, M., **J.W. Hunt**, B.S. Anderson, L. Espinosa, and F.H. Palmer. 1986. Marine Bioassay Project - Second Report - Acute toxicity tests with red abalone, mysid shrimp, and giant kelp. California State Water Resources Control Board. Sacramento, California. 65 p.

Peer-Reviewed Publications

60. Anderson BS, Phillips BM, **Hunt JW**, Siegler K, Voorhees JP, Smalling K, Kuivila K, Hamilton M, Ranasinghe JA, Tjeerdema RS. 2014. Impacts of Pesticides in a Central California Estuary. Environmental Monitoring and Assessment, 186(3): 1801-1814.

59. Smalling, K. L., K. M. Kuivila, J. L. Orlando, B. M. Phillips, B. S. Anderson, K. Siegler, **J. W. Hunt** and M. Hamilton. 2013. Environmental fate of fungicides and other current-use pesticides in a central California estuary. *Marine Pollution Bulletin*, 73:144-153.
58. Phillips BM, Anderson BS, **Hunt JW**, Siegler K, Voorhees JP, Tjeerdema RS, McNeill K. 2012. Pyrethroid and organophosphate pesticide-associated toxicity in two coastal watersheds (California, USA). *Env Toxicol Chem* 31, 1595–1603
57. Anderson B, Phillips B, **Hunt JW**, Largay B, Shihadeh R, Tjeerdema R. 2011. Pesticide and toxicity reduction using an integrated vegetated treatment system. *Env Toxicol Chem* 30: 1036-1043
56. Phillips BM, Anderson, Voorhees JP, **Hunt JW**, Holmes RW, Mekebri, Connor V, Tjeerdema RS. 2010. The contribution of pyrethroid pesticides to sediment toxicity in four urban creeks in California, USA. *J Pesticide Sci* 35: 302-309.
55. Anderson BS, Phillips BM, **Hunt JW**, et al. 2010. Evaluation of methods to determine causes of sediment toxicity in San Diego Bay, California, USA. *Ecotoxicology and Environmental Safety* 73: 534-540.
54. Phillips BM, Anderson BS, **Hunt JW**, et al. 2009. Evaluation of Phase II toxicity identification evaluation methods for freshwater whole sediment and interstitial water. *Chemosphere* 74: 648-653.
53. Holmes RW, Anderson BS, Phillips BM, **Hunt JW**, Crane D, Mekebri A, Connor V. 2008. Statewide investigation of the role of pyrethroid pesticides in sediment toxicity in California's urban waterways. *Environ. Sci. Technol.* 42: 7003-7009.
52. **Hunt, JW**, Anderson, BS, Phillips, BM, Tjeerdema, RS, Largay, B, Beretti, M, and Bern, A. 2008. Use of toxicity identification evaluations to determine the pesticide mitigation effectiveness of on-farm vegetated treatment systems. *Environmental Pollution* 156: 348-358.
51. Anderson BS, Phillips BM, **Hunt JW**, Voorhees J, Clark S, Tjeerdema RS. 2008. Recent advances in sediment toxicity identification evaluation methods emphasizing pyrethroid pesticides. In: Gan J-G, Hendley P, Spurlock F, Weston D. (eds), *Synthetic Pyrethroids: Occurrence and Behavior in Aquatic Environments*. American Chemical Society Books, Washington, DC (invited).
50. Phillips BM, Anderson BS, Hunt JW, Clark SL, Voorhees JP, Tjeerdema RS, Casteline J, Stewart M. 2008. Evaluation of phase II toxicity identification evaluation methods for freshwater whole sediment and interstitial water. *Chemosphere* 74: 648-653.
49. Anderson, BS, Phillips, BM, Voorhees, J, Clark, S, **Hunt, JW**, Lowe, S, Tjeerdema, RS. 2007. Relative sensitivities of toxicity test protocols with the amphipods *Eohaustorius estuarius* and *Ampelisca abdita*. *Ecotox and Environ Safety* 69: 24-31
48. Phillips, BM, Anderson, BS, **Hunt, JW**, S, Tjeerdema. 2007. Causes of Water Toxicity to *Hyalella azteca* in the New River, California (USA). *Environ Toxicol Chem* 26: 1074-1079.
47. Anderson, BS, **Hunt, JW**, Phillips, BM, Thompson, B, Lowe, S, Taberski, K, Carr, RS. 2007. Patterns and trends in sediment toxicity in the San Francisco estuary. *Env. Research* 105: 145-155.
46. **Hunt, JW**, Anderson, BS, Phillips, BM, Tjeerdema, RS, Richard, N, Connor, V, Worcester, K, Angelo, M, Bern, A, Fulfrost, B, Mulvaney, D. 2006. Spatial relationships between water quality and pesticide applications in agricultural watersheds. *Environ Monit Assess.* 121:245-262.

45. Phillips, BM, Anderson, BS, **Hunt, JW**, Huntley, S, Tjeerdema, RS, Kapellas, N, Worcester, K. 2006. Solid-phase sediment toxicity identification evaluation in an agricultural stream. *Environ Toxicol Chem.*25: 1671-1676.
44. Anderson, BS, Phillips, BM, **Hunt, JW**, Richard, N, Connor, V., Tjeerdema, RS. 2006. Evidence of pesticide impacts in the Santa Maria River watershed (California, USA). *Environ. Toxicol. Chem* 25:1160-1170.
43. Anderson, BS, Phillips, BM, **Hunt, JW**, Richard, N, Connor, V., Tjeerdema, RS. 2006. Identifying primary stressors impacting macroinvertebrates in the Salinas River (California, USA): relative effects of pesticides and suspended particles. *Environmental Poll.* 141: 402-408.
42. **Hunt JW**, Anderson BS, Phillips BM. 2005. Agricultural drain water toxicity mitigated by pH adjustment. Chapter 6.28. In: Norberg-King T, Ausley L, Burton D, Goodfellow W, Miller J, Waller WT (eds.) *Toxicity Reduction Evaluations and Toxicity Identification Evaluation (TIE) for Effluent, Ambient Waters and Other Aqueous Media*. SETAC Press, Pensacola, FL.
41. **Hunt JW**, Anderson BS, Phillips BM. 2005. Toxicity identification evaluation of solid-phase sediment from San Francisco Bay, California, USA. Chapter 6.27. In: Norberg-King T, Ausley L, Burton D, Goodfellow W, Miller J, Waller WT (eds.) *Toxicity Reduction Evaluations and Toxicity Identification Evaluation (TIE) for Effluent, Ambient Waters and Other Aqueous Media*. SETAC Press, Pensacola, FL.
40. Waller, T, Bailey, H, Ho, K, deVlaming, V, **Hunt, JW**, Miller, JL, Novak, L, 2005. Toxicity identification evaluations of ambient water, porewater, and sediment. In: Norberg-King TJ, Ausley LW, Burton DT, Goodfellow WL, Miller JL, Waller WT (Eds.) *Toxicity reduction and toxicity identification evaluations for effluents, ambient waters, and other aqueous media*. Society of Environmental Toxicology and Chemistry (SETAC). Pensacola FL, USA 496 p.
39. Phillips, BM, Nicely, PA, **Hunt, JW**, Anderson, BS, Tjeerdema, RS, Palmer, FH. 2005. Tolerance of five west coast marine organisms to ammonia. *Bull Environ Contam Toxicol.*75: 23-27.
38. Phillips, BM, Anderson, B.S., **Hunt, J.W.**, Nicely, PA, Kosaka, R, de Vlaming, V, Connor, V, Richard, N, Tjeerdema, RS. 2004. *In situ* water and sediment toxicity in an agricultural watershed. *Environ. Toxicol. Chem.* 23:435-442.
37. Anderson, B.S., **Hunt, J.W.**, Phillips, B.M., Nicely, PA, Martin, M, Tjeerdema, RS. 2004. Comparison of *in situ* and laboratory toxicity tests with the estuarine amphipod *Eohaustorius estuarius*. *Arch Environ Contam Toxicol.* 46: 52-60.
36. Anderson BS, **Hunt JW**, Phillips BM, Nicely PA, de Vlaming V, Connor V, Richard N, Tjeerdema R. 2003. Ecotoxicologic impacts of agriculture drainwater in the Salinas River (California, USA). *Environ Toxicol Chem* 22: 2375-2384.
35. Phillips BM, Anderson BS, **Hunt JW**, Thompson B, Lowe S, Hoenicke R, Tjeerdema R. 2003. Causes of Sediment Toxicity to *Mytilus galloprovincialis* in San Francisco Bay, California. *Arch Environ Toxicol Contam* 45: 486-491
34. Phillips, BM, Nicely, PA, **Hunt, JW**, Anderson, BS, Tjeerdema, RS, Palmer, SE, Palmer, FH, Puckett, HM. 2003. Toxicity of cadmium-copper-nickel-zinc mixtures to larval purple sea urchins (*Strongylocentrotus purpuratus*) and bay mussels (*Mytilus galloprovincialis*). *Bull. Environ Contam. Toxicol.* 70: 592-599.

33. Anderson, B.S., **Hunt, J.W.**, Phillips, B.M., Nicely, PA, de Vlaming, V, Connor, V, Richard, N, Tjeerdema, RS. 2003. Integrated assessment of the impacts of agricultural drainwater in the Salinas River (California, USA). *Environ. Pollution* 124: 523-532.
32. **Hunt, JW**, Anderson, BS, Phillips, BM, Nicely, PA, Tjeerdema, Puckett, HM, Stephenson, M, Worcester, K, deVlaming, V. 2003. Ambient toxicity due to chlorpyrifos and diazinon in a Central California Watershed. *Environ Monit Assess.* 82: 83-112.
31. **Hunt, JW**, Anderson, BS, Phillips, BM, Tjeerdema, RS, Puckett, HM, Stephenson, M, Tucker, DW, Watson, D. 2002. Acute and chronic toxicity of nickel to marine organisms: implications for water quality criteria. *Environ Toxicol Chem.* 21(11): 2423-2430.
30. Anderson, BS, de Vlaming, V, Larsen, K, Deanovic, L, Birosik, S, Smith, DJ, **Hunt, JW**, Tjeerdema, RS. 2002. Causes of toxicity in the Calleguas Creek watershed of southern California. *Environ Monit Assess.* 78: 131-151.
29. Fairey, R., E.R. Long, C.A. Roberts, B.S. Anderson, B.M. Phillips, **J.W. Hunt**, H.R. Puckett, C.J. Wilson, G. Kapahi, M. Stephenson. 2001. An evaluation of methods for calculating mean sediment quality guideline quotients as indicators of contamination and acute toxicity to amphipods by chemical mixtures. *Environ Toxicol Chem* 20: 2276-2286.34.
28. **Hunt, J.W.**, B.S. Anderson, B.M. Phillips, J. Newman, R. Tjeerdema, R. Fairey, H.M. Puckett, M. Stephenson, R.W. Smith, C.J. Wilson, and K.M. Taberski. 2001. Evaluation and use of sediment toxicity reference sites for statistical comparisons in regional assessments. *Environ Toxicol Chem* 20: 1266-1275.
27. **Hunt, J.W.**, B.S. Anderson, B.M. Phillips, R. Tjeerdema, K.M. Taberski, C. J. Wilson, H. M. Puckett, M. Stephenson, R. Fairey, J. Oakden. 2001. A large-scale categorization of sites in San Francisco Bay, USA based on the sediment quality triad, toxicity identification evaluations, and gradient studies. *Environ Toxicol Chem* 20: 1252-1265.
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25. Phillips, B.M., **J.W. Hunt**, B.S. Anderson, H.M. Puckett, R. Fairey, C.J. Wilson, R. Tjeerdema. 2001. Statistical significance of sediment toxicity test results: threshold values derived by the detectable significance approach. *Environ Toxicol Chem* 20: 371-373.
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23. Anderson, B.S., **Hunt, J.W.**, Phillips, B.M., Fairey, R., J., Puckett, H.M., Stephenson, M., Tjeerdema, R.S, and Martin, M.. 2000. Ecotoxicological change at a remediated Superfund site in San Francisco Bay. *Environ Toxicol Chem* 19(4): 879-887.
22. **Hunt, J.W.**, Anderson, B.S., Phillips, B.M., Tjeerdema, R.S., Puckett, H.M., and deVlaming, V. 1999. Patterns of aquatic toxicity in an agriculturally dominated coastal watershed in California. *Agriculture, Ecosystems, and Environment* 75: 75-91.
21. Thompson, B., Anderson, B., **Hunt, J.W.**, Taberski, K., and Phillips, B. 1999. Relationships between sediment contamination and toxicity in San Francisco Bay. *Mar Environ Res* 48: 1-25.

20. **Hunt, J. W.**, Anderson, B. S., and Phillips, B.M. 1998. Recent advances in microscale toxicity testing with marine molluscs. In: P.G. Wells, K. Lee, and C. Blaise (Eds) *Microscale aquatic toxicology - advances, techniques, and practice*. CRC Lewis Publishers, Boca Raton, Florida.
19. Anderson, B.S., **Hunt, J.W.**, Phillips, B.M., Tudor, S., Fairey, R., Newman, J., Puckett, H.M., Stephenson, M., Long, E.R., Wilson, C.J., and R.S. Tjeerdema. 1998. Comparison of marine sediment toxicity test protocols for the amphipod *Rhepoxynius abronius* and the polychaete worm *Nereis (Neanthes) arenaceodentata*. *Environ Toxicol Chem* 17: 859-866.
18. Phillips, B.M., Anderson, B.S. and **Hunt, J.W.** 1998. Spatial and temporal variation in results of purple sea urchin (*Strongylocentrotus purpuratus*) toxicity tests with zinc. *Environ Toxicol Chem* 17: 453-460.
17. Anderson, B.S., **Hunt, J.W.**, and Piekarski, W.J. 1998. Recent advances in toxicity testing methods using kelp gametophytes. In: Wells, P.G., Lee, K., and C. Blaise (eds.) *Microscale Aquatic Toxicology- Advances, Techniques and Practice*. Lewis Publishers, Boca Raton, FL. (invited).
16. Fairey, R., Roberts, C., Jacobi, M., Lamerdin, S., Clark, R., Downing, J., Long, E., **Hunt, J.W.**, Anderson, B., Newman, J., Tjeerdema, R., Stephenson, M., Wilson, C. 1998. Assessment of sediment toxicity and chemical concentrations in the San Diego Bay Region, California, USA. *Environ Toxicol Chem* 17: 1570-1581.
15. Phillips, B.M., Anderson, B.S. and **Hunt, J.W.** 1997. Measurement and distribution of interstitial and overlying water ammonia and hydrogen sulfide in sediment toxicity tests. *Mar Environ Res* 44: 117-126.
14. **Hunt, J.W.**, Anderson, B.S., Turpen, S.L., Englund, M.A., and Piekarski, W.J. 1997. Precision and sensitivity of a seven-day growth and survival toxicity test using the west coast marine mysid crustacean *Holmesimysis costata*. *Environ Toxicol Chem* 16: 824-834.
13. Conroy, P.T., **Hunt, J.W.**, and Anderson, B.S. 1996. Validation of a short-term toxicity test endpoint by comparison with longer-term effects on larval red abalone *Haliotis rufescens*. *Environ Toxicol Chem* 15: 1245-1250.
12. Anderson, B.S., **Hunt, J.W.**, Hester, M.M., and Phillips, B.M. 1996. Assessment of sediment toxicity at the sediment-water interface. In: G.K. Ostrander (ed.) *Techniques in Aquatic Toxicology*. Lewis Publishers, Ann Arbor, MI (invited).
11. **Hunt, J.W.**, Foster, M.S., Nybakken, J., Larson, R., and Ebert, E.E. 1995. Interactive effects of polyculture, feeding rate, and stocking density on growth of juvenile shellfish. *J Shellfish Res* 14: 191 - 197.
10. Anderson, B.S., **Hunt, J.W.**, Pierkarski, W.J., Phillips, B.M., Englund, M.A., Tjeerdema, R.S., and Goetzl, J.D. 1995. Influence of salinity on copper and azide toxicity to larval topsmelt *Atherinops affinis* (Ayres). *Arch Environ Contam Toxicol* 29: 366 - 372.
9. Anderson, B.S., **Hunt, J.W.**, McNulty, H.R., Turpen, S.L., and Martin, M. 1994. Off-season spawning and factors influencing toxicity test development with topsmelt *Atherinops affinis*. *Environ Toxicol Chem* 13: 479-485.
8. Turpen, S.L., **Hunt, J.W.**, Anderson, B.S., and Pearse, J.S. 1994. Population structure, growth and fecundity of the kelp forest mysid *Holmesimysis costata* in Monterey Bay, California. *J Crustac Biol* 14: 657-664.

7. McNulty, H.R., Anderson, B.S., **Hunt, J.W.**, Turpen, S.L., and Singer, M.M. 1994. Age-specific toxicity of copper to larval topsmelt *Atherinops affinis*. *Environ Toxicol Chem* 13: 487-492.
6. **Hunt, J.W.** and Anderson, B.S. 1993. From research to routine: a review of toxicity testing with marine molluscs. W.G. Landis, J.S. Hughes, and M.A. Lewis, Eds., Environmental Toxicology and Risk Assessment, ASTM STP 1179, American Society for Testing and Materials, Philadelphia, PA. pp. 320 - 339. (invited)
5. Anderson, B.S., Middaugh, D.P., **Hunt, J.W.**, and Turpen, S.L. 1991. Copper toxicity to sperm, embryos, and larvae of topsmelt *Atherinops affinis*, with notes on induced spawning. *Mar Environ Res* 31: 17-35.
4. Anderson, B.S., **Hunt, J.W.**, Turpen, S.L., Coulon, A.R., Martin, M. 1990. Copper toxicity to microscopic stages of giant kelp *Macrocystis pyrifera*: interpopulation comparisons and temporal variability. *Mar Ecol Prog Ser* 68: 147 - 156.
3. Martin, M., **Hunt, J.W.**, Anderson, B.S., Turpen, S.L., and Palmer, F.H. 1989. Experimental evaluation of the mysid *Holmesimysis costata* as a test organism for effluent toxicity testing. *Environ Toxicol Chem* 8: 1003 - 1012.
2. **Hunt, J.W.** and Anderson, B.S. 1989. Sublethal effects of zinc and municipal sewage effluents on larvae of the red abalone *Haliotis rufescens*. *Mar Biol* 101: 545 - 552.
1. Anderson, B.S. and **Hunt, J.W.** 1988. Bioassay methods for evaluating the toxicity of biocides, heavy metals, and sewage effluent using microscopic stages of giant kelp *Macrocystis pyrifera* (Agardh): A preliminary report. *Mar Environ Res* 26: 113 - 134.

Presentations at Scientific Meetings

(J.W. Hunt first author and presenter on all presentations cited.)

February 2014. Monterey Bay Conference on Water Quality. "What Coastal Confluences tell us about Watershed Condition, Estuary Health, and Constituent Loadings to Sanctuary Waters."

October 2013. US EPA Healthy Watersheds Workshop. "From Raw Data to Report Cards: A brief review of methods for transforming, aggregating and binning monitoring results."

February 2013. State of the California Central Coast Symposium (Monterey, CA). "The California Water Quality Monitoring Council's central coast focus for ocean health monitoring."

November 2012. California Sustainable Ag Expo (Monterey, CA). "Effectiveness of Vegetated Treatment Systems for Reducing Pesticide Impacts."

September 2012. Central Coast Regional Water Quality Control Board special meeting of senior staff (San Luis Obispo). "Central Coast Healthy Watersheds Assessment."

April 2010. Seventh National Monitoring Conference (Denver, CO). "An Approach for Combining Targeted Diagnostic Monitoring and Probabilistic Ecological Monitoring to Assess the Extent of Impairment in California Streams."

May 2010. Society of Environmental Toxicology and Chemistry, Northern California. "Economic Models and the Use of Regional Water Quality Monitoring Information in Resource Management Decision-Making."

April 2009. Sanctuary Currents Symposium (Marina, CA). "Inflows from a Changing Society: Our Past, Our Present, Our Pollutants and their Impacts in the Sanctuary."

- September 2008. California Association of Stormwater Quality Agencies. Annual Meeting. "Coordinated Monitoring by SWAMP and Stormwater Agencies: Watershed Contaminant Trends and Pyrethroids in Urban Streams."
- November 2007. National Conference on Agriculture & the Environment (Monterey, CA). "Monitoring the Pesticide Mitigation Effectiveness of On-Farm Vegetated Treatment Systems."
- November 2007. Regional conference on Synthesis, Assessment and Management (NMFS, Santa Cruz, CA). "Coordinating Monitoring Objectives and Information Statewide."
- May 2007. Society of Environmental Toxicology and Chemistry (NorCal Chapter – at UC Berkeley). "TIEs and Pesticide Mitigation on Working Farms."
- May 2006. National Water Quality Monitoring Conference (San Jose, CA). "Using Land Use Data to Evaluate Monitoring Designs for Multiple Objectives."
- March 2006. Scientific Planning and Review Committee SWAMP Program Review (Irvine, CA). "Statewide Assessment Framework."
- October 2005. Scientific Planning and Review Committee SWAMP Program Review (Irvine, CA). "Statewide Impairment Modeling to Support Monitoring Design."
- July 2005. Water Quality and Environmental Health in the Monterey Bay Area. Central Coast Joint Data Committee (Moss Landing, California). "Looking for connections between land use and water quality."
- October 2004. US EPA Star Fellowship Conference (Washington, D.C.). "Water quality and sustainable land use." (Invited panelist)
- November 2004. Society of Environmental Toxicology and Chemistry, (Fourth SETAC World Congress, Portland, OR). "Relationships between in-stream toxicity, pesticide application rates, and nitrate pollution on multiple watershed scales." Co-authors: B. Anderson, B. Phillips, R. Tjeerdema, N. Richard, K. Worcester, M. Angelo, A. Berne, B. Fulfroost, D. Mulvaney.
- June 2001. Society of Environmental Toxicology and Chemistry (NorCal Chapter – at UC Santa Cruz). "Acute and Chronic Nickel Toxicity to Marine Organisms: Implications for Water Quality Criteria." Co-authors: B.S. Anderson, B.M. Phillips, R.S. Tjeerdema, H.M. Puckett, M. Stephenson, D. Tucker, D. Watson.
- June 2001. Society of Environmental Toxicology and Chemistry (NorCal Chapter – at UC Santa Cruz). Organizer and Moderator for Symposium on Global Warming.
- November 2000. Society of Environmental Toxicology and Chemistry, (SETAC – Nashville). "A TIE tour of an urban/agricultural watershed." Co-authors: B. Anderson, B. Phillips, P. Nicely, R. Tjeerdema, V. deVlaming and K. Worcester.
- June 2000. Society of Environmental Toxicology and Chemistry (NorCal Chapter – at UC Davis). "Investigating Causes of Ambient Toxicity in the Salinas River Watershed." Co-authors: Anderson B.S., Phillips B.M., Nicely, P.A., deVlaming, V., Worcester, K.
- November 1999. Society of Environmental Toxicology and Chemistry, (SETAC - Philadelphia). "Ambient toxicity in two Monterey Bay watersheds: implicated chemicals and tributary sources." Co-authors: B. Anderson, B. Phillips, V. deVlaming and K. Worcester.

- October 1999. Moss Landing Marine Laboratory Seminar Series. "Biological impacts of toxic contaminants: identifying hot spots, locating sources, and implicating specific chemicals in and around San Francisco and Monterey Bays."
- September 1999. Seventh National Nonpoint Source Monitoring Workshop. "Toxic runoff in two Monterey Bay watersheds: implicated chemicals and tributary watersheds." Co-authors: B. Anderson, B. Phillips, V. deVlaming and K. Worcester.
- May 1999. Southern California Academy of Sciences. "California Bay Protection and Toxic Cleanup Program: a weight of evidence approach to the identification of contaminated sediments." (Invited) Co-authors: C. Wilson, B. Anderson, R. Fairey, H. M. Puckett, and M. Stephenson.
- March 1999. State of the Estuary Conference, San Francisco. "Sediment toxicity in San Francisco Bay: Screening for hot spots, investigating sources and causes." Co-authors: B. Anderson, B. Phillips, R. Tjeerdema, R. Fairey, H. M. Puckett, M. Stephenson, and K. Taberski.
- November 1998. Society of Environmental Toxicology and Chemistry, (SETAC - Charlotte, NC). "Use of the sediment quality triad, TIEs, and gradient studies in identifying toxic hot spots in San Francisco Bay." Co-authors: B. Anderson, B. Phillips, R. Tjeerdema, R. Fairey, H. M. Puckett, M. Stephenson, and K. Taberski.
- March 1998. Monterey Bay National Marine Sanctuary, Sanctuary Currents Symposium. "Toxic Chemicals and Aquatic Organisms: An Overview of Recent Studies around Monterey Bay." (Invited)
- November 1997. Instructor, US EPA and Society of Environmental Toxicology and Chemistry Short Course on Whole Effluent Toxicity Testing Methods with Marine Organisms. (Invited). Published workbook.
- November 1997. Society of Environmental Toxicology and Chemistry, (SETAC- San Francisco, CA). "Sediment toxicity in San Francisco Bay: Results of large-scale monitoring programs. Co-authors: B. Anderson, R. Tjeerdema, R. Fairey, H. M. Puckett, R. Smith and K. Taberski.
- June 1997. Society of Environmental Toxicology and Chemistry, Northern California Chapter (NorCal SETAC- San Francisco, CA). "Toxicity assessment of a coastal stream, lagoon, and tributaries receiving urban and agricultural runoff." Co-authors: B. Anderson, B. Phillips, M. Englund, W. Piekarski, R. Tjeerdema, and V. deVlaming.
- April 1997. Association of Monterey Bay Area Governments, Geographic Information Systems Workshop (MBARI, Moss Landing). "Impacts of non-point source pollution on Elkhorn Slough and Monterey Bay." (Invited), with Mark Silberstien and Helmut Gieben.
- November 1996. Society of Environmental Toxicology and Chemistry (SETAC Washington, DC). "Toxicity of a coastal stream, lagoon, and tributaries receiving agricultural drain water." Co-authors: B.S. Anderson and B.P. Phillips.
- November 1995. Society of Environmental Toxicology and Chemistry (SETAC Vancouver, B.C.). "Toxicity evaluation of sediments from potential reference sites in San Francisco Bay." Co-authors: K.M. Taberski, B.S. Anderson, W.R. Fairey, H.M. Puckett, R.W. Smith, S.R. Hansen, and G.G. Wortham.
- July 1995. Society of Environmental Toxicology and Chemistry (Northern California Chapter, Santa Cruz). "Identification of reference sites, evaluation of toxicity tests and development of toxicity identification evaluations (TIEs) for sediment in San Francisco Bay." Co-authors: K.T. Taberski, B.S. Anderson, J. Newman, S.R. Hansen, G.G. Wortham, W.R. Fairey, M. Stephenson, and H.M. Puckett.

- July 1995. Society of Environmental Toxicology and Chemistry (Northern California Chapter). "Toxicity evaluation of sediments from potential reference sites in San Francisco Bay." Co-authors: B.S. Anderson, J. Newman, R.W. Smith, K.T. Taberski, W.R. Fairey, M. Stephenson, and H.M. Puckett.
- September 1994 Southern California Toxicity Assessment Group Annual Meeting. "Issues in toxicity test implementation: protocol selection and evaluation of factors affecting test performance and precision." (Invited).
- November 1993 Society of Environmental Toxicology and Chemistry. "Toxicity of sediment elutriate and pore water along a contamination gradient in San Francisco Bay." Co-authors: B. Anderson, M. Stephenson, and K. Taberski.
- March 1993 Society of Environmental Toxicology and Chemistry (First SETAC World Congress, Lisbon, Portugal). "Development of a toxicity testing program using indigenous marine species to monitor effluent discharges." Co-authors: B. Anderson.
- November 1992 Society of Environmental Toxicology and Chemistry. "Development of a sublethal toxicity test with the mysid *Holmesimysis costata*." Co-authors: B. Anderson.
- April 1991 ASTM, American Society for Testing and Materials, "From research to routine: a review of toxicity testing with marine molluscs." Published review paper in ASTM Special Technical Publication, (invited), with B. Anderson.
- December 1990 Western Society of Naturalists. "Pollution effects on the kelp forest mysid crustacean, *Holmesimysis costata*." Co-authors: B.S. Anderson.
- September 1990 National Shellfisheries Association. "Growth of juvenile abalone, mussels, and spot prawns in an experimental polyculture."
- February 1990 U.S. Environmental Protection Agency Workshop on Culture and Toxicity Testing of West Coast Marine Organisms. Four presentations: *Haliotis rufescens*, *Holmesimysis costata*, *Macrocystis pyrifera*, *Atherinops affinis*. Published abstracts with B.S. Anderson.
- November 1989 Society of Environmental Toxicology and Chemistry. "Experimental evaluation of the mysid *Holmesimysis costata* for effluent toxicity testing." Co-authors: M. Martin.
- November 1989 Society of Environmental Toxicology and Chemistry. "Seasonal and geographic effects on the toxicity of copper to microscopic stages of the giant kelp, *Macrocystis pyrifera*." Co-authors: B.S. Anderson.
- December 1988 American Society of Zoologists/Western Society of Naturalists. "Pollution effects on larvae of the red abalone, *Haliotis rufescens*." Co-authors: B. Anderson.
- November 1988 Society of Environmental Toxicology and Chemistry. "Abalone veliger larval development and metamorphosis as sublethal indicators of effluent toxicity." Co-authors: B. Anderson.
- February 1988 American Fisheries Society. "Commercial cultivation of abalone in California." Published abstract (invited).

