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Publications

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Journal Publications:

Connor, M.S., J.A. Davis, J. Leatherbarrow, B.K. Greenfield, A. Gunther, D. Hardin, T. Mumley, C. Werme, and J.J. Oram. The slow recovery of the San Francisco Estuary from the legacy of organochlorine pesticides. *Environmental Pollution*. (2006): In Press.

Greenfield, B.K., M. Blankinship, and T.P. McNabb. Control costs, operation, and permitting issues for non-chemical plant control: case studies in the San Francisco Bay-Delta Region, California. *J. Aquat. Plant Manage.* 44 (2006): 40-49.

Spencer, D. F., G. G. Ksander, M.J. Donovan, P.S. Liow, W.K. Chan, B.K. Greenfield, S.B. Shonkoff, and S.P. Andrews. Evaluation of water hyacinth survival and growth in the Sacramento Delta, California following cutting. *J. Aquat. Plant Manage.* 44 (2006): 50-60.

David, N., B.K. Greenfield, and G.S. Siemering. Evaluating impacts of Lake Maid plant control. *J. Aquat. Plant Manage.* 44 (2006): 60-66.

Greenfield, B.K., and J.A. Davis. A PAH fate model for San Francisco Bay. *Chemosphere* 60 (2005):515-530. Manuscript available at http://www.sfei.org/rmp/reports/PAH/PAHfatemodel_BG.pdf

Hrabik, T.R., B.K. Greenfield, D.B. Lewis, A.I. Pollard, K.A. Wilson, and T.K. Kratz. Landscape scale variation in taxonomic diversity in four groups of aquatic organisms: the influence of physical, chemical and biological properties. *Ecosystems* 8 (2005): 301-317.

Greenfield, B.K., J.A. Davis, R. Fairey, C. Roberts, D. Crane, and G. Ichikawa. Seasonal, interannual, and long-term variation in sport fish contamination, San Francisco Bay. *The Science of the Total Environment* 336 (2005): 25-43. Manuscript available at http://www.sfei.org/rmp/reports/fish_contamination/Interannualvar_sportfish_BG.pdf

Greenfield, B.K. Three mechanical shredders evaluated for controlling water hyacinth (California). *Ecological Restoration* 22 (4) (2004): 300-301.

Gergel, S.E., E.M. Bennett, B.K. Greenfield, S. King, C.A. Overdeest and B. Stumborg. A test of the Environmental Kuznets Curve using long-term watershed inputs. *Ecological Applications* 14 (2004): 555-570.

Davis, J.A., M.D. May, B.K. Greenfield, R. Fairey, C. Roberts, G. Ichikawa, M.S. Stoelting, J.S. Becker, and R.S. Tjeerdema. Contaminant concentrations in sport fish from San Francisco Bay, 1997. *Marine Pollution Bulletin* 44 (2002): 1117-1129.

Greenfield, B.K., D.B. Lewis, and J.T. Hinke. Effect of injury in salt marsh periwinkles (*Littoraria irrorata* Say) on resistance to future attacks by blue crabs (*Callinectes sapidus* Rathbun). *American Malacological Bulletin*. 17(1/2) (2002): 141-146.

Greenfield, B.K., T.R. Hrabik, C.J. Harvey, and S.R. Carpenter. Predicting mercury levels in fish: use of water chemistry, trophic ecology, and spatial traits. *Canadian Journal of Fisheries and Aquatic Sciences*. 58(7) (2001): 1419-1429. Available at http://www.sfei.org/staff_pubs/Greenfield%20et%20al.pdf

Greenfield, B.K. Predicting mercury levels in fish: use of water chemistry, trophic ecology, and spatial traits. M. S. Thesis. University of Wisconsin - Madison. June, 2000.

Journal Publications In Review:

Greenfield, B.K. and K.A. Wilson. The relationship between water color and stable carbon isotopes ($\delta^{13}\text{C}$) in northern temperate lakes, Wisconsin, USA. Submitted to Canadian Journal of Fisheries and Aquatic Sciences.

Greenfield, B.K., Siemering, G.S., Andrews, J.C., Rajan, M., Andrews, S.P., and D.F. Spencer. Mechanical shredding of water hyacinth (*Eichhornia crassipes*): impacts to water quality in the Sacramento-San Joaquin River Delta, California. Submitted to Estuaries.

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Greenfield, B.K., S.J. Teh, J.R.M. Ross, J.A. Hunt, G.H. Zhang, J.A. Davis, G. Ichikawa, D. Crane, S.S.O. Hung, D.F. Deng, and F.C. Teh. 2006. Contaminant concentrations and histopathology of Sacramento splittail (*Pogonichthys macrolepidotus*) from Sacramento and San Joaquin Rivers, p. 4-44 *In* S. J. Teh, (ed.) Final Report of CALFED project #99N07: Chronic Toxicity of Environmental Contaminants in Sacramento Splittail (*Pogonichthys macrolepidotus*): A Biomarker Approach. Davis, CA.

Davis, J.A., J.A. Hunt, B.K. Greenfield, R. Fairey, M. Sigala, D.B. Crane, K. Regalado, and A. Bonnema. 2006. Contaminant concentrations in fish from San Francisco Bay, 2003. Oakland, CA. SFEI Contribution #432. 48 pp.

Leatherbarrow, J.E., N. David, B.K. Greenfield, J.J. Oram, and J.A. Davis. 2006. Organochlorine pesticide fate in San Francisco Bay. Oakland, CA. SFEI Contribution # 433. 54 pp. Available at http://www.sfei.org/rmp/reports/No433_RMP_OCPModel.pdf.

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Andrews, J.C., M. Craig, M. Rajan, and B. Greenfield. 2005. Biochemical and physical effects of water hyacinth on the flux of trace elements and suspended sediments. Report to Calfed. California State University East Bay, Hayward, CA. 24 pp.

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Greenfield, B.K., E. Wittner, N. David, S. Shonkoff, and J.A. Davis. 2004. Monitoring trace organic contamination in Central Valley fish: current data and future steps. Report to the Central Valley Regional Water Quality Control Board. Oakland, CA, SFEI Contribution #99. 63 pp. Available at http://www.sfei.org/rmp/reports/delta_organics/delta_organics_report.pdf

Siemering, G., Hayworth, J., Melwani, A., Crane, D., Mekebri, A., Blondina, G., Schlenk, D., Xie, L., Irwin, M.A., Berry, K., Greenfield, B.K., and K. Thrippleton. 2004. Aquatic Pesticides Monitoring Program Phase 3 (2004) Monitoring Project Report. APMP Technical Report. Oakland, CA, SFEI Contribution # 391. 60 pp. Available at http://www.sfei.org/apmp/reports/391_APMP_Phase3ReportFinal.pdf

Greenfield, B.K., N. David, J. Hunt, M. Wittmann, and G. Siemering. 2004. Review of Alternative Aquatic Pest Control Methods For California Waters. APMP Technical Report. Oakland, CA, SFEI Contribution # 96. 109 pp. Available at http://www.sfei.org/apmp/reports/PestAlternatives_review.pdf

San Francisco Estuary Institute (SFEI), Blankinship and Associates, Marin Municipal Water District, Reclamation District 999, and Contra Costa County Public Works Department. 2004. Field Evaluations of Alternative Pest Control Methods in California Waters. B.K. Greenfield, *Ed.* APMP Technical Report. SFEI Contribution #95. 110 pp. Available at http://www.sfei.org/apmp/reports/PestAlternatives_field.pdf

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Davis, J.A., B.K. Greenfield, J. Ross, D. Crane, G. Ichikawa, J. Negrey, H. Spautz and N. Nur. 2004. Contaminant accumulation in eggs of double-crested cormorants and song sparrows in San Pablo Bay. Cisnet Technical Report. Oakland, CA, SFEI. 21 pp.

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Grenier, J.L., J.N. Collins, J.A. Davis, and B.K. Greenfield. The tidal marsh food web. 2002. Report to the San Francisco Bay Fund. Berkeley, CA, University of California. 12 pp.

Davis, J.A., B.K. Greenfield, G. Ichikawa and M. Stephenson. Mercury in sportfish from the Delta region (Task 2A). CALFED Final Project Report. 88 pp. Available at <http://loer.tamug.tamu.edu/calfed/DraftReports.htm>

Platform and Poster Presentations:

Greenfield, B.K., A. Jahn, J.L. Grenier, S.B. Shonkoff, and M. Sandheinrich. 2006. Using biosentinel fish as a TMDL target in San Francisco Bay. 2006. CALFED Science Conference 2006. October 23-25. Sacramento, CA. Abstract available at http://science.calwater.ca.gov/conferences/sciconf_abstract.shtml

Greenfield, B.K., A.R. Melwani, J.J. Oram, and M.S. Connor. A framework for assessing effects of sediment contaminants on wildlife and humans. 2006. Invited presentation. Special session on Sediment Quality Objectives in California. California and the World Ocean 2006. September 17 - 20. Long Beach, CA.

Greenfield, B.K., Davis, J.A., Grenier, J.L., Melwani, A.R., Hunt, J.A. and S. Bezalel. Legacy mercury contamination in California sport fish. 2006. Invited presentation. Special session on metals in food. American Chemical Society 232nd National Meeting. September 10 – 14. San Francisco, CA. Abstract available at <http://oasys2.confex.com/acs/232nm/techprogram/P995608.HTM>

J.A. Hunt, B.K. Greenfield, J.A. Davis, R. Fairey, M. Sigala, D. Crane, K. Regalado, L. Nguyen, and M. Vasquez. Legacy and emerging contaminants in San Francisco Bay sport fish, 2003. 2006. Poster presentation. National Water Quality Monitoring Council 5th National Monitoring Conference. May 7-11. San Jose, CA.

Greenfield, B.K., J.L. Grenier, A. Jahn, S.B. Shonkoff, M. Sandheinrich, J.C. Andrews, and J.A. Davis. 2006. Monitoring mercury in biosentinel fish in San Francisco Bay. National Water Quality Monitoring Council 5th National Monitoring Conference. May 7-11. San Jose, CA.

Mendoza, M., J. Darrow, M. Rajan, B.K. Greenfield, and J.C. Andrews. 2005. Mercury Methylation of Aquatic Plants: Using X-ray Absorption Spectroscopy (XAS) for Speciation. CALFED Annual Mercury Meeting. November 29, 2005. Sacramento, CA.

Bay, S.M., C. Beegan, D.E. Vidal, J.A. Ranasinghe, S.B. Weisberg, B.K. Greenfield, M.S. Connor. 2005. Development of California Marine Sediment Quality Objectives Using a Multiple Line of Evidence Framework. National SETAC November 2005. Baltimore, MD

Greenfield, B.K., A.R. Melwani, J.J. Oram, and M.S. Connor. 2005. The use of biota-sediment accumulation models in sediment quality objective development. California Estuarine Research Society Conference 2005. March 18-19. Santa Barbara, CA.

Spencer, D.F., G.G. Ksander, M.J. Donovan, P.S. Liow, W.K. Chan, B.K. Greenfield, S.B. Shonkoff and S. Andrews. 2005. Evaluation of waterhyacinth survival and growth following cutting. Western Aquatic Plant Management Society. 24th Annual Meeting. March 10-11, 2005. Denver, Colorado.

Davis, J.A. and B.K. Greenfield. 2004. Sport fish contamination in the Bay-Delta watershed. CALFED Science Conference 2004. October 4-6. Sacramento, CA. Abstract available at <http://cain.nbii.gov/regional/calfed/calfedabstracts>

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Hua, M., M. Rajan, A. Hackett, J. Darrow, J.C. Andrews, and B. Greenfield. Does shredding water hyacinths affect mercury speciation? CALFED Science Conference 2004. October 4-6. Sacramento, CA. Abstract available at <http://cain.nbii.gov/regional/calfed/calfedabstracts>

Siemering, G. and B.K. Greenfield. 2004. California Aquatic Pesticide Nonchemical Alternatives Program, demonstration project findings. Western Aquatic Plant Management Society 23rd Annual Meeting. March 11-12, 2004. Bellevue, Washington.

Davis, J.A., B.K. Greenfield, G. Ichikawa, and M. Stephenson. 2003. Mercury in Sport Fish from the Sacramento-San Joaquin Delta Region in California. SETAC 24th Annual Meeting. November 9-13, 2003. Austin, Texas.

Davis, J.A., B.K. Greenfield, J. Leatherbarrow, and N. David. Choosing a future bay: the long term fate of PCBs and other organics. Regional Monitoring Program for Trace Substances Annual Meeting. May 13, 2003. Oakland, CA. Available at <http://www.sfei.org/rmp/presentations/2003meeting/JayDavis.ppt>

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Greenfield, B.K., J.A. Davis, R. Fairey, C. Roberts, D. Crane and G. Ichikawa. 2002. Contaminant concentrations in fish in San Francisco Bay: 2000. NorCal SETAC 12th Annual Meeting. May 28-29, 2002. Davis, CA.

Greenfield, B.K. and J.A. Davis. Contaminant concentrations in fish: 2000. Regional Monitoring Program for Trace Substances Annual Meeting. March 22nd, 2002. Oakland, CA. Available at http://www.sfei.org/rmp/presentations/Ben-G_RMPMtg-2002.ppt

Greenfield, B.K. and K.A. Wilson. Water color affects lake stable carbon isotope but not the food source for yellow perch. Ecological Society of America 86th annual meeting. August, 2001. Madison, WI.

Greenfield, B.K., J.A. Davis, G. Ichikawa, M. Stephenson, D.G. Slotton, S. Ayers, and W. Jarman. Mercury contamination of sport fish in the Delta and its tributaries. Poster Presentation. NorCal SETAC 11th Annual Meeting. June 17-19, 2001. Santa Cruz, CA. Available at <http://www.sfei.org/cmr/Mercury.pdf>

Davis, J.A., B.K. Greenfield, C. Roberts, R. Fairey, G. Ichikawa, and D. Crane. Persistent contaminants of human health concern in sport fish from the Central Valley and San Francisco Bay. NorCal SETAC 11th Annual Meeting. June 17-19, 2001. Santa Cruz, CA.

Hrabik, T.R., B.K. Greenfield, T.K. Kratz, D.B. Lewis, A.I. Pollard, and K.A. Wilson. Variability in species richness among four taxonomic groups in north temperate lakes with varying chemical characteristics and stream connectivity. Ecological Society of America 85th annual meeting. August, 2000. Snowbird, Utah.

Overdeest, C.A., E.M. Bennett, S.E. Gergel, B.K. Greenfield, B. Stumborg. A reassessment of the Kuznets Curve using long term environmental indicators. Eighth International Symposium on Society and Resource Management.

Greenfield, B.K., S.R. Carpenter, T.R. Hrabik, C.J. Harvey and T.K. Kratz. Geomorphic and ecological effects on mercury levels in yellow perch. Ecological Society of America 84th annual meeting. August, 1999. Spokane, WA.

Recent Press Coverage and Outreach:

“Herbicide first step to eradicate *Ludwigia*.” Interview. The Press Democrat. March 14, 2005.

“Clean Car, Dirty Bay.” Interview. California Wild Magazine. Spring, 2004. 57(2). Available at <http://www.calacademy.org/calwild/2004spring/index.html>

“Fish Safety” program on City Visions Radio. Invited panelist. KALW 91.7 FM, San Francisco. February 2, 2004.

“Terminator” chops up costly Delta invader. Interview. East Bay Business Times. October 3, 2004.

“The Shredder” brought in to battle invasive plant. Interview. TV and Web coverage on KCRA-TV, Sacramento. September 8, 2003. Available at <http://www.thekcrachannel.com/news/2464015/detail.html>

Fish caught in Bay contain high levels of contamination. San Francisco Chronicle. July 24, 2003. Available at <http://sfgate.com/cgi-bin/article.cgi?f=/c/a/2003/07/24/BA259593.DTL>

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