

Publications, Inge Werner

Peer-reviewed journal publications and book chapters

1. Linares-Casenave J., Van Eenennaam J.P., Werner I., Doroshov S.I. (in preparation). Temperature stress induces notochord abnormalities and hsp expression in larval green sturgeon (*Acipenser medirostris*).
2. Johnson M.L., Werner I., Green P.G., Fong S., Deanovic L., Fessler C.C. (in preparation). Toxicity of storm water from transportation facilities.
3. Clifford M., Bowen L., Stott J., Werner I., Hedrick R. (in preparation). Potential mechanisms involved in the early mortality of juvenile Chinook salmon exposed concurrently to infectious hematopoietic necrosis virus (IHNV) and the pyrethroid insecticide esfenvalerate.
4. Moore M.T., Denton D.L., Cooper C.M., Wrynski J., Miller J.L., Werner I., Horner G., Crane D., Holcomb D.B., Huddleston III G.M. (in review). Use of vegetated agricultural drainage ditches to decrease pesticide transport from tomato and alfalfa fields in California, Part 1: Field trials and economic analysis. *Environmental Toxicology and Chemistry*.
5. Brooks, M.L., E. Fleishman, L. Brown, P. Lehman, I. Werner, M.L. Johnson, N. Scholz, C. Mitchelmore, A. Parker, D. Stoms, J. Drever, D. Dugdale, D. Schlenk, S. Teh, S. van Drunick (in review). The role of toxics in the multi-faceted decline of pelagic fishes in the San Francisco Estuary, California. *Frontiers in Ecology and the Environment*.
6. Deanovic L.A., Markiewicz D., Stillway M., Fong S., Werner I. (in preparation). Evaluating the Suitability of *Hyalella azteca* Water Column Tests for the Detection of Insecticide Toxicity. *Environmental Toxicology and Chemistry*.
7. Werner I., Deanovic L.A., Miller J., Denton D.L., Crane D., Moore M.T., Wrynski J. (in press). Effectiveness of Vegetated Agricultural Drainage Ditches in Removing Pesticide Toxicity. *Environmental Toxicology and Chemistry*.
8. Mosser C.M., Geist J.P., Hladik M.L., Brander S.M., Werner I. (in preparation). Esfenvalerate toxicity to the cladoceran *Ceriodaphnia dubia* in the presence of the green algae, *Pseudokirchneriella subcapitata*.
9. Beggel S., Werner I., Connon R.E., Geist J. (2010). Sublethal toxicity of commercial insecticide formulations and their active ingredients to larval fathead minnow (*Pimephales promelas*). *Science of the Total Environment* 408: 3169–3175.
10. Connon R.E., Beggel S., D'Abronzio L.S., Geist J., Loguinov A.S., Vulpe C.D., Werner I. (in review). Molecular biomarkers in endangered species: neuromuscular impairments following sublethal copper exposures in the delta smelt (*Hypomesus transpacificus*). *Environmental Toxicology and Chemistry*.
11. Werner I., Deanovic L.A., Markiewicz D., Khamphanh J., Reece C.K., Stillway M., Reece C. (in press). Monitoring acute and chronic water column toxicity in the Northern Sacramento-San Joaquin Estuary, California, USA, using the euryhaline amphipod, *Hyalella azteca*: 2006-2007. *Environmental Toxicology and Chemistry*.
12. Scholz N.L., Fleishman E., Brown L., Brooks M.L., Mitchelmore C., Werner I., Johnson M.L., Schlenk D. (in review). Pesticides and the decline of pelagic fishes in western North America's largest estuarine ecosystem. *Conservation Letters*.
13. Bachand P.A.M., Bachand S.M., Lopus S.E., Heyvaert A., Werner I. (2010). Treatment with Chemical Coagulants at Different Dosing Levels Changes Ecotoxicity of Stormwater from the Tahoe Basin, California, USA. *Journal of Environmental Science and Health, Part A*: 45(2).
14. Connon R.E., Geist J., Pfeiff, J., Loguinov A.S., D'Abronzio L.S., Wintz, H., Vulpe C.D., Werner, I. (2009). Linking mechanistic and behavioral responses to sublethal pyrethroid exposure in the endangered delta smelt; *Hypomesus transpacificus* (Fam. Osmeridae). *BMC Genomics*, 10:608.
15. Lopus S.E., Bachand P.A.M., Heyvaert A., Werner I., Teh S.J., Reuter J. (2009). Potential Toxicity Concerns from Chemical Coagulation Treatment of Stormwater in the Tahoe Basin, California, USA. *Ecotoxicology and Environmental Safety* 72:1933-1941.

16. Werner I., Markiewicz D.A., Goding K., Reece K. (2009). Benthic macroinvertebrate communities in ephemeral agricultural drainage ditches of California's Central Valley. *In: Agricultural Drainage Ditches: Mitigation Wetlands of the 21st Century*. M. T. Moore, R. Kroger, editors. Research Signpost, Kerala, India, pp 1-16.
17. Brander S.M., Werner I., White J.W., Deanovic L.A. (2009). Toxicity of a dissolved pyrethroid mixture to *Hyalella azteca* at environmentally relevant concentrations. *Environmental Toxicology and Chemistry* 28(7): 1493–1499.
18. Eder K.J., Leutenegger C.M., Koehler H.-R., Werner I. (2009). Effects of neurotoxic insecticides on heat-shock proteins and cytokine transcription in Chinook salmon (*Oncorhynchus tshawytscha*). *Ecotoxicology and Environmental Safety* 72(1): 182-190.
19. Werner I., Moran K. (2008) Effects of pyrethroid insecticides on aquatic organisms. *In: Synthetic Pyrethroids: Occurrence and Behavior in Aquatic Environments*. J. Gan, F. Spurlock, P. Hendley, D. P. Weston, editors. American Chemical Society, ACS Symposium Series 991, American Chemical Society, Washington, DC, USA, pp 310-335.
20. Floyd E.Y., Geist J.P., Werner I. (2008). Short-term exposure of the fathead minnow (*Pimephales promelas*) to a pyrethroid insecticide: Implications for growth, behavior, and predation risk. *Environmental Toxicology and Chemistry*, 27(8): 1780–1787.
21. Eder K.J., Clifford M.A., Hedrick R.P., Koehler H.-R., Werner I. (2008) Expression of immune-regulatory genes in juvenile Chinook salmon following exposure to pesticides and infectious hematopoietic necrosis virus (IHNV). *Journal of Fish and Shellfish Immunology* 25: 508–516.
22. Geist J.P., Werner I., Eder K.J., Leutenegger C.M. (2007). Comparisons of tissue-specific transcription of stress response genes with whole animal endpoints of adverse effect in striped bass (*Morone saxatilis*) following treatment with copper and esfenvalerate. *Aquatic Toxicology* 85:28-39.
23. Eder K.J., Koehler H.-R., Werner I. (2007). Pesticide and pathogen: heat shock protein expression and acetylcholinesterase inhibition in juvenile Chinook salmon in response to multiple stressors. *Environmental Toxicology and Chemistry* 26(6):1233-1242.
24. Werner I., Linares-Casenave J., Van Eenennaam J.P., Doroshov S.I. (2006). The effect of temperature stress on heat-shock protein expression and development in larval green sturgeon (*Acipenser medirostris*). *Environmental Biology of Fishes* 79(3-4):191-200.
25. Werner I., Viant M.R., Rosenblum E.S., Gantner A.S., Tjeerdema R.S., Johnson M.L. (2006). Cellular responses to temperature stress in steelhead trout (*Onchorynchus mykiss*) parr with different rearing histories. *Fish Physiology and Biochemistry* 32:261–273.
26. Allen P., Hodge B., Werner I., Cech, Jr J.J. (2006). Effects of size, seawater tolerance, and temperature on the swimming performance of juvenile green sturgeon (*Acipenser medirostris*). *Canadian Journal of Fisheries and Aquatic Science* 63: 1360–1369.
27. Bowen L., Werner I. and Johnson M.L. (2006). Physiological and behavioral effects of increased zinc and temperature on coho salmon (*Oncorhynchus kisutch*). *Hydrobiologia* 559:161-168.
28. Brady J.A., Wallender W.W., Werner I., Fard B.M., Zalom F.G., Oliver M.N., Wilson B.W., Mata M.M., Henderson J.D., Deanovic L.A., Upadhaya S. (2006). Pesticide runoff from orchard floors: a comparative analysis of diazinon and esfenvalerate. *Agriculture, Ecosystems and Environment* 115:56-68.
29. Clifford M.A., Eder K.J., Werner I., Hedrick R.P. (2005). Synergistic effects of esfenvalerate and infectious hematopoietic necrosis virus on juvenile Chinook salmon mortality. *Environmental Toxicology and Chemistry* 24(7):1766-1772.
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31. Liu W.P., Gan J., Lee S.J., Werner I. (2005). Isomer selectivity in aquatic toxicity and biodegradation of bifenthrin and permethrin. *Environmental Toxicology and Chemistry* 24(8):1861-1866.

32. Lu X. Q., Werner I. and Young T.M. (2005) Geochemistry and Bioavailability of Metals in Sediments from Northern San Francisco Bay. *Environment International* 31:593-602.
33. Werner I., Smith T., Feliciano J. and Johnson M.L. (2005) Heat-shock proteins in juvenile steelhead trout (*Oncorhynchus mykiss*) reflect thermal conditions in the Navarro River watershed, California, USA. *Transactions of the American Fisheries Society* 134:399-410.
34. Viant M.R., Werner I., Rosenblum E.S., Gantner A.S., Tjeerdema R.S., Johnson M.L. (2004). Correlation between stress protein induction and reduced metabolic condition in juvenile steelhead trout (*Oncorhynchus mykiss*) chronically exposed to elevated temperature. *Fish Physiology and Biochemistry* 29:159-171.
35. Zalom F.G, Werner I., Oliver M.N., Deanovic L.A., Kimball T., Wilson B.W., Henderson J.D., Wallender W.W. (2004). Comparison of pest control efficacy, pesticide concentration and toxicity in storm runoff resulting from earlier timing of organophosphate dormant sprays. *Bulletin of Environmental Contamination and Toxicology* 73:299-305.
36. Werner I., Zalom F.G., Oliver M.N., Deanovic L.A., Kimball T., Henderson J.D., Wilson B.W., Krueger W., Wallender W.W. (2004). Toxicity of stormwater runoff after dormant spray application in a French prune orchard (Glenn County, California, USA): temporal patterns and the effect of ground covers. *Environmental Toxicology and Chemistry* 23(11):2719-2726.
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39. Teh S.J., Deng D.F., Werner I., Teh F.C., Hung S.S.O. (2004). Sublethal toxicity of orchard stormwater runoff contaminated with esfenvalerate and diazinon in Sacramento splittail (*Pogonichthys macrolepidotus*) larvae. *Marine Environmental Research* 59:203-216.
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44. Zalom F.G., Oliver M.N., Wallender W.W., Werner I., Wilson B.W., Krueger W.H., Angermann B.T., Deanovic L.A., Kimball T.S., Henderson J.D., Oliveira G.H. and P. Osterli (2002). Monitoring and mitigating offsite movement of dormant spray pesticides from California orchards. *Acta Horticulturae* 592:729-735.
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prune orchard (Glenn County, California). *Bulletin of Environmental Contamination and Toxicology* 68(1):29-36.11.

49. Werner I., Koger C.S., Hamm J. T. and Hinton D.E. (2001). Ontogeny of the heat shock protein, hsp70 and hsp60, response and developmental effects of heat-shock in the teleost, medaka (*Oryzias latipes*). *Environmental Sciences* 8(1):13-30.
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55. Ringwood A.H., Hameedi M.J., Lee R.F., Brouwer M., Peters E.C., Scott G.I., Luoma S.N., DiGiulio R.T., Depledge M., Steinert S., Teh S., Van Beneden R., Winston G., Epel D., Minier C., Narbonne J.F., Peters L., Roesijadi G., Viarengo A., Werner I., Anderson R., Burnett L., Chu F.L., Oliver L., Paynter K. (1999). Bivalve Biomarker Workshop: overview and discussion group summaries. *Biomarkers* 4 (6): 391-399.
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Other publications and technical reports

- Werner I., L.A. Deanovic, M. Stillway, D. Markiewicz. 2009 b. Acute Toxicity of Ammonia/um and Wastewater Treatment Effluent-Associated Contaminants on Delta Smelt - 2009. Final Report to the Central Valley Regional Water Quality Control Board, Rancho Cordova, CA.
- Werner I., L.A. Deanovic, M. Stillway, D. Markiewicz. 2009 a. Acute Toxicity of Ammonia/um and Wastewater Treatment Effluent-Associated Contaminants on Delta Smelt - 2008. Final Report to the Central Valley Regional Water Quality Control Board, Rancho Cordova, CA.
- Werner I., Deanovic L., Markiewicz D., Stillway M., Offer N., Connon R., Brander S. (2008). Pelagic Organism Decline (POD): Acute and Chronic Invertebrate and Fish Toxicity Testing in the Sacramento-San Joaquin Delta 2006-2007, Final Report, Interagency Ecological Program, Sacramento, CA.
- Wrysinski J., Cooper C., Crane D., Denton D., Werner I., Miller J., Moore M., Werner I., Williams M., Huddleston M. (2008). Water Quality Benefits of Vegetated Agricultural Drainage Ditches As A

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- Reed D., Anderson J., Fleishman E., Freyberg D., Kimmerer W., Rose K., Stacey M., Ustin S., Werner I., (2007). Bay Delta Conservation Plan Independent Science Advisors Report, California Resources Agency, Sacramento, CA.
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- Werner I., Vasi M., Markiewicz D. (2006) Surface Water Ambient Monitoring Program (Contract #03-197-250-0). Final Report 2004-2005 submitted to the State Water Resources Control Board, Sacramento, CA.
- Werner I. (2005) Pelagic Organism Decline (POD): Acute and Chronic Invertebrate and Fish Toxicity Testing; Report submitted to the Interagency Ecological Program, Sacramento, CA.
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- Werner I., Deanovic L.A., Kimball T., Wilson B.W., Krueger W., Wallender W.W., Oliver M.N. and Zalom F.G. Toxicity of stormwater runoff after dormant spray application in a French prune orchard (Glenn Co., California): Temporal Patterns and the effect of ground covers. *Conference Proceedings: pp 46-51*, California Plant and Soil Conference, California Chapter of the American Society of Agronomy, February 5-6, 2003, Modesto, CA.
- Zalom F.G, Oliver M.N., Werner I., Deanovic L.A., Kimball T., Wilson B.W., Henderson J.D., and Wallender W.W. Mitigating orchard dormant spray runoff by alternative treatment timing; impact on target pest species and pesticide load. *Conference Proceedings: pp 39-45*, California Plant and Soil Conference, California Chapter of the American Society of Agronomy, February 5-6, 2003, Modesto, CA.
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