

Doug Demko J.D. is the President of FISHBIO, a fisheries consulting firm that specializes in fisheries research and monitoring. Doug's 26 years of experience in fisheries research and monitoring, applied biology, facilitation, and negotiation has gained him the reputation of a regional fisheries expert with extensive experience in fish population and life-history research and monitoring. He began his career monitoring juvenile Chinook in the Sacramento River, including operating the first rotary screw trap in California's Central Valley in 1990. Since that time, he has managed a number of research and monitoring programs, including developing operational protocols for the Central Valley Project Improvement Act (CVPIA) Comprehensive Assessment and Monitoring Program (CAMP). His extensive technical experience with fish population research has enabled him to start and grow a company with a successful track record of fisheries research in the United States and Asia. Doug has gained a reputation among California water users as an expert in fishery flow and water use issues. He currently represents large water coalitions such as the San Joaquin River Group, Tri-Dam Project, and Modesto and Oakdale irrigation districts, among others. Internationally his clients include the U.S. State Department, U.S. Geological Survey (USGS), World Wide Fund for Nature (WWF), International Union for the Conservation of Nature (IUCN), Critical Ecosystem Partnership Fund, Wildlife Conservation Society (WCS), The Asia Foundation, and others. He has authored/co-authored multiple technical reports pertaining to a variety of fisheries monitoring efforts. He also regularly speaks at scientific and legal symposia on their behalf, and has testified on fisheries issues to the California State Legislature on behalf of Central Valley water users.

EXPERT FISHERIES TESTIMONY/ADVISING

Presenter and panelist with U.S. Senator Tom McClintock regarding drought impacts and fish flows for salmon and steelhead in the Stanislaus River. The Water Crisis Forum. March 2015.

Expert testimony on the impacts of flow on juvenile Chinook salmon and steelhead migration and survival in the San Joaquin River Basin. State Water Resources Control Board Proceeding to Develop Flow Criteria for the Delta Ecosystem. March 2011.

Prepared brief on California Delta Chinook salmon predation losses for U.S. Senator Dianne Feinstein prior to a Congressional Meeting with **House Speaker** Pelosi and Senator Boxer on Central Valley fish and water issues.

Expert testimony on the extent and causes of losses of juvenile Chinook salmon and steelhead in California's Central Valley tributaries and Delta. California State Legislature Congressional Subcommittee on the causes of California salmonid declines. 2010.

Expert testimony on the extent and causes of losses of juvenile Chinook salmon and steelhead in California's Central Valley tributaries and Delta. California State Legislature Congressional Subcommittee on the causes of California salmonid declines. 2009.

FISHERIES PRESENTATIONS

Demko, D., M. Peterson, and G. Kopp. Pushing the Boundaries of Half-Duplex PIT Tag Antenna Design: Case Study from Two High-Velocity Water Diversions. 7th World Fisheries Congress. Busan, Korea. May 2016.

Demko, D. and G. Kopp. Evaluating Behavioral Response of Salmonids to Hydropower Operations. 7th World Fisheries Congress. Busan, Korea. May 2016.

Cuthbert, R., S. Zipper, G. Kopp, and **D. Demko**. Going Beyond Visible Light. Using Infrared to Monitor Chinook Salmon and Other Species in Turbid Waters. 145th Annual Meeting of the American Fisheries Society. Portland, Oregon. August 2015.

Hewitt, D., Ut V.N., M. Anderson, J. Beeman, H. Patricio, S. Ainsley, **D. Demko**, and C. Conzelmann. Collaborative Research of Mekong River Fishes. 145th Annual Meeting of the American Fisheries Society. Portland, Oregon. August 2015.

Peterson, M., G. Kopp, and **D. Demko**. Pushing the Boundaries of Half-Duplex PIT Tag Antenna Design: A Case Study from Two High-Velocity Water Diversions. 145th Annual Meeting of the American Fisheries Society. Portland, Oregon. August 2015.

Demko, D. FISHBIO Activities in the Mekong and the United States: The Importance of Fisheries Monitoring and Research. Science for a Sustainable Mekong River System. Mekong River System Science and Data Workshop. University of Science, Ho Chi Minh City, Vietnam. September 2014.

Demko, D. Comments on the Substitute Environmental Document and Proposed Flow Alternative Relative to San Joaquin Basin Fishery Resources. Prepared on behalf of the San Joaquin Tributaries Authority. State Water Resources Control Board SED Workshop. Sacramento, CA. March 2013.

Demko, D. The Future of Salmon in the San Joaquin Basin. Natural Resource Summit. Sonora, CA September 2011.

Patricio, H., and **D. Demko**. Introduced fishes in the California Delta: Cumulative impacts of predation on threatened native fishes. Fish Diversity and Conservation: Current State of Knowledge. Bournemouth University, Bournemouth, U.K. July 2011.

Patricio, H., and **D. Demko**. Hydroacoustic telemetry as a conservation tool: Integrating studies for comprehensive understanding of native species survival in California. 1st International Conference on Fish Telemetry, Hokkaido University, Sapporo, Japan. June 2011.

Demko, D. Use of upstream and downstream migrant sampling to effectively monitor abundance and life history traits of anadromous fishes in rivers. Fish Sampling with Active Methods Conference. Ceske Budejovice, Czech Republic. September 2010.

Patricio, H., and **D. Demko**. Playing with aliens: Impacts of introduced aquatic species in the California Delta. 24th International Congress for Conservation Biology. Edmonton, Canada. July 2010.

Demko, D. and H. Patricio. Conserving salmonids in a changing climate. 23rd International Congress for Conservation Biology. Beijing, China. July 2009.

Demko, D. {invited} Historical Conditions in California and the Impact of Introduced Species. Water Education Foundation Bay Delta Tour, 2007.

Demko, D. {invited} Overview of Fish ID and Counting Techniques, Weirs, Snorkel Surveys, Carcass Counts, Stanislaus Weir, and Vaki Counters. 1st Annual Spring-Run Chinook Confab-Butte Creek, 2006.

Demko, D. {invited} New Technologies for Managing Central Valley Salmon and Steelhead. California Irrigation Institute 43rd Annual Meeting, 2005.

Demko, D., M. Simpson, A. Fuller, and C. Sonke. Stanislaus River portable resistance board weir and Vaki Riverwatcher system performance. American Fisheries Society, Cal-Neva Conference, 2005

Kopp, G., M. Simpson and **D. Demko.** Historical and current information on green sturgeon occurrence in the Sacramento and San Joaquin rivers and Tributaries. American Fisheries Society, Cal-Neva Conference, 2005.

Demko, D. {invited} Feasibility of Using Resistance Board Weirs and Vaki Riverwatchers to Count and Characterize Salmonid Populations. Fifth Annual Northwest Salmonid Recovery Conference, Seattle, Washington, 2004.

Demko, D. {invited} Practicality of Using Resistance Board Weirs and Infrared Technology to Count and Characterize Salmonid Populations. California Coastal Salmonid Monitoring Plan Workshop, 2004.

Simpson, M., **D. Demko.** A river runs dry: challenges associated with salmonid restoration when water availability is a primary limiting factor. American Fisheries Society, Cal-Neva Conference, 2004.

Demko, D. Evaluation of an Alaskan Weir and Vaki Infrared System to Count and Characterize Adult Salmonids. CALFED Science Conference, 2004.

Demko, D. Acoustic Tracking Technology and Potential Applications for Salmonid Research within the San Francisco Bay and Sacramento-San Joaquin Delta. American Fisheries Society, California-Nevada Chapter Symposium and 38th Annual Meeting, Redding, CA, 2004.

Demko, D. Feasibility of Using Portable Resistance Board Weirs and Vaki RiverWatchers to Count and Characterize Anadromous Salmonid Populations. American Fisheries Society, California-Nevada Chapter Symposium and 38th Annual Meeting, Redding, CA, 2004.

Demko, D. Life History Evaluation of Central Valley *Oncorhynchus mykiss* in the Calaveras River using Passive Integrated Transponder Technology. American Fisheries Society, California-Nevada Chapter Symposium and 38th Annual Meeting, Redding, CA, 2004.

Demko, D. Comparison of *Oncorhynchus mykiss* Outmigration Characteristics in Two San Joaquin Tributaries American Fisheries Society, California-Nevada Chapter Symposium and 37th Annual Meeting, San Diego, CA, 2003.

FISHEIRES SYMPOSIA CHAIR

Demko, D. and G. Kopp. Symposium Co-Chairs: Technology and Inland Fisheries, Finding the Balance of Hydropower and Resource Sustainability. 7th World Fisheries Congress. Busan, Korea. May 2016.

Demko, D. Symposium Session Chair: Native Fishes. American Fisheries Society, 137th Annual Meeting, San Francisco, CA, 2007.

Demko, D. Symposium Session Chair: Chinook Salmon. American Fisheries Society, California-Nevada Chapter Symposium and 40th Annual Meeting, San Luis Obispo, CA, 2006.

Demko, D. and M. Simpson. Symposium Session Co-Chairs: Role of Long-term Monitoring in Managing Central Valley Salmonids. American Fisheries Society, California-Nevada Chapter Symposium and 39th Annual Meeting, Sacramento, CA, 2005.

FISHERIES PUBLICATIONS/REPORTS

Demko, D., M. Peterson, G. Kopp, and J. Guignard. 2014. Comparison of *O. mykiss* Abundance and Habitat Features in the Tuolumne River with the Stanislaus and Calaveras Rivers. Prepared for Turlock and Modesto Irrigation District.

Demko, D., M. Hellmair, M. Peterson, S. Ainsley, M. Palmer, and A. Fuller. 2012. Review of Scientific Information Pertaining to SWRCB's February 2012 Technical Report on the Scientific Basis for Alternative San Joaquin River Flow Objectives. Prepared by FISHBOP for San Joaquin Tributaries Authority. 59 pp + attachments.

Demko, D., M. Hellmair, M. Peterson, S. Ainsley, M. Palmer, and A. Fuller. 2012. Summary of Scientific Certainty Regarding San Joaquin Basin Chinook Salmon. Prepared by FISHBIO for State Water Resource Control Board Phase II Comprehensive Review Workshops. 23 pp.

Cuthbert, R., Ainsley, S. and **Demko, D.,** 2011. Salinas Basin Juvenile *O. mykiss* Outmigration Monitoring. Prepared by FISHBIO for Monterey County Water Resource Agency.

Palmer, M., and **D. Demko.** 2007. Calaveras River Habitat Conservation Plan. Prepared by FISHBIO Environmental for Stockton East Water District. 152 pp +appendices.

Beamesderfer, R., **M. Simpson,** G. Kopp, **J. Inman, A. Fuller, and D. Demko.** 2004. Historical and current information on green sturgeon occurrence in the Sacramento and San Joaquin rivers and tributaries. Prepared by S.P. Cramer & Associates, Inc. 44 pp.

- Simpson, M.L. and D.B Demko.** 2004. Migration characteristics of juvenile salmonids in the Calaveras River: 2002-2004. Prepared by S.P. Cramer & Associates for Stockton East Water District. 23 pp.
- Demko, D., Simpson, M., Sonke, C.** 2003. Use of a portable resistance board weir to count and characterize runs of anadromous salmonids in the Stanislaus River. Interagency Ecological Program. Vol. 16(4): 40-43.
- Demko, D., A. Olson, M. Simpson, G. Kopp, and D. Reiser.** 2003. Acoustic tracking technology and potential applications for salmonid research within the San Francisco Bay and Sacramento-San Joaquin Delta. White Paper prepared by S.P. Cramer & Associates, Inc. and R2 Resource Consultants, Inc. for California Urban Water Agencies, Sacramento, CA. 107 pp.
- Demko, D.B., A. Phillips** and S.P. Cramer. 2001. Outmigrant trapping of juvenile salmonids in the lower Stanislaus River Caswell State Park site 2000. Final report to U.S. Fish and Wildlife Service.
- Demko, D.B., A. Phillips** and S.P. Cramer. 2001. Effects of pulse flows on juvenile Chinook migration in the Stanislaus River. Annual Report for 2000. Prepared by S.P. Cramer & Associates for the Tri-Dam Project.
- Demko, D.B., C. Gemperle, A. Phillips,** and S.P. Cramer. 2000. Outmigrant trapping of juvenile salmonids in the lower Stanislaus River Caswell State Park Site 1999. Prepared by S.P. Cramer & Associates for the U.S. Fish and Wildlife Service under subcontract to CH2M Hill.
- Demko, D.B., A. Phillips** and S.P. Cramer. 2000. Effects of pulse flows on juvenile Chinook migration in the Stanislaus River. Annual Report for 1999. Prepared by S.P. Cramer & Associates for the Tri-Dam Project.
- Demko, D.B., C.K. Gemperle, A. Phillips** and S.P. Cramer. 1999. Evaluation of juvenile Chinook behavior, migration rate and location of mortality in the Stanislaus River through the use of radio tracking-1998. Prepared by S.P. Cramer & Associates for the Tri-Dam Project.
- Demko D.B., C. Gemperle, S.P. Cramer, and A. Phillips.** 1999. Outmigrant trapping of juvenile salmonids in the lower Stanislaus River Caswell State Park site 1998. Prepared for the U.S. Fish and Wildlife Service, Anadromous Fish Restoration Program under contract with CH2M Hill.
- Demko, D.B.** and S.P. Cramer. 1998. Outmigration trapping of juvenile salmonids in the lower Stanislaus River Caswell State Park site-1997. Prepared by S.P. Cramer & Associates, Inc. for the U.S. Fish and Wildlife Service, Stockton, CA.
- Demko, D.B., C. Gemperle, S.P. Cramer and A. Phillips.** 1998. Evaluation of juvenile Chinook behavior, migration rate and location of mortality in the Stanislaus River through the use of radio tracking. Prepared by S.P. Cramer & Associates for the Tri-Dam Project.
- Cramer, S.P., and **D.B. Demko.** 1998. Candidate Conservation Agreement for Stanislaus River Fall Chinook Salmon. Draft report. S.P. Cramer & Associates, Gresham, OR.

- Cramer, S.P., and **D.B. Demko**. 1997. The status of late-fall and spring Chinook salmon in the Sacramento River Basin regarding the Endangered Species Act. Special Report submitted to National Marine Fisheries Service, January 1997. 111pp.
- Demko, D.B.** and S.P. Cramer. 1997. Outmigrant trapping of juvenile salmonids in the lower Stanislaus River Caswell State Park - 1996. Prepared by S.P. Cramer & Associates, Inc. for the U.S. Fish and Wildlife Service under subcontract to CH2M Hill.
- Demko, D.B.** and others. 1996. Effects of pulse flows on juvenile Chinook migration in the Stanislaus River. Annual Report for 1996. Prepared by S.P. Cramer & Associates, Inc. for the Oakdale Irrigation District, Oakdale, CA, and South San Joaquin Irrigation District, Manteca, CA.
- Demko, D.B.** and S.P. Cramer. 1995. Effects of pulse flows on juvenile Chinook migration in the Stanislaus River. Annual Report for 1995. Prepared by S.P. Cramer & Associates, Inc. for the Oakdale Irrigation District, Oakdale, CA, and South San Joaquin Irrigation District, Manteca, CA.
- Demko, D.B.**, S.P. Cramer, and **M. Simpson**. 1995. Evaluation of an acoustical fish guidance system at Reclamation District 1004. Final Report submitted to Reclamation District 1004 and U.S. Fish and Wildlife Service. 84 pp.
- Demko, D.B.**, S.P. Cramer, D. Neeley and E. Van Dyke. 1995. Evaluation of sound and electrical fish guidance systems at the Wilkins Slough diversion operated by Reclamation District 108. Final Report submitted to Reclamation District 108 and the U.S. Bureau of Reclamation, Sacramento, California. 110 pp.
- Cramer S.P., Alley D.W., Baldrige J.E., Barnard K., **Demko D.B.**, Dettman D.H., Farrell B., Hagar J.M., Keegan T.P., Laird A., Mitchell W.T., Nuzum R.C., Orton R., Smith J.J., Taylor T.L., Unger P.A., Van Dyke E.S. 1995. The status of steelhead populations in California in regards to the Endangered Species Act. Special report submitted to the National Marine Fisheries Service on behalf of the Association of California Water Agencies. 190 pp.
- Demko, D.B.** and S. Cramer. 1994. Biological Assessment for the evaluation of electrical and acoustical fish guidance systems at the Wilkins Slough diversion operated by Reclamation District 108. Final Report submitted to Reclamation District 108 and the U.S. Bureau of Reclamation.
- Demko, D.B. and S. Cramer. 1994. Evaluation of sound and electrical fish guidance systems at the Wilkins Slough Diversion operated by Reclamation District 108. Progress Report submitted to Reclamation District 108, Grimes, California.
- Cramer, S.P., and **D.B. Demko**. 1994. Biological Assessment for the evaluation of an acoustical fish guidance system at Reclamation District 1004's Princeton Pumping Station. Submitted to Reclamation District 1004, Colusa, California.
- Demko, D.B.** and S. Cramer. 1993. Evaluation of juvenile Chinook entrainment at the South Yuba-Brophy Diversion Headworks. Progress Report submitted to South Yuba-Brophy and Yuba County Water agencies, Marysville, California.

- Cramer, S.P. and **D.B. Demko**. 1993. Effects of pulse flows on juvenile Chinook migration in the Stanislaus River. Annual report 1993. Prepared by S.P. Cramer and Associates for the South San Joaquin Irrigation District and Oakdale Irrigation District.
- Demko, D.B.** and S. Cramer. 1993. 1992 Juvenile Chinook and Sacramento squawfish monitoring at the Glenn-Colusa Irrigation District Diversion. Final Report submitted to the Glenn-Colusa Irrigation District.
- Cramer, S.P., E.S. Van Dyke and **D.B. Demko**. 1993. Biological Assessment for the evaluation of sound and electrical fish guidance systems at the Wilkins Slough Diversion. Submitted to Reclamation District 108, Grimes, California.
- Cramer, S.P. and **D.B. Demko**. 1993. Evaluation of juvenile Chinook entrainment at six unscreened water diversions along the Sacramento River by Reclamation District 108. S.P. Cramer & Associates, Gresham, CA.
- Demko, D.B.** 1992. Olympic National Forest Big Quilcene Drainage Stream Survey. Final Report submitted to the Department of Agriculture, U.S. Forest Service, Quilcene, Washington.
- Demko, D.B.** 1992. Instream rainbow trout survey at Thousand Springs Ranch. Final Report, submitted to Peter Stent, Thousand Springs Ranch, Fall River Mills, California.
- Cramer S.P., and **D.B. Demko**. 1992. Evaluation of juvenile Chinook entrainment at six unscreened water diversions along the Sacramento River by Reclamation District 108. Progress Report, submitted to Reclamation District 108, Grimes, California.
- Cramer, S.P., and **D.B. Demko**. 1992. Evaluation of juvenile Chinook entrainment at two unscreened water diversions along the Sacramento River by River Garden Farms. Final Report, submitted to River Garden Farms, Knights Landing, California.
- Cramer, S.P., **D. Demko**, C. Fleming, T. Loera, and D. Neeley. 1992. Juvenile Chinook passage investigations at Glenn-Colusa Irrigation District diversion. Annual Report for 1991, submitted to Glenn-Colusa Irrigation District, Willows, California, 170 pp.
- Cramer, S.P., and **D.B. Demko**. 1991. Juvenile Chinook Passage Investigations at the Glenn-Colusa Irrigation District Diversion. Progress Report, submitted to Glenn-Colusa Irrigation District, Willows, California.
- Cramer, S.P., **D. Demko**, C. Fleming, and T. Loera. 1990. Survival of juvenile Chinook at the Glenn-Colusa Irrigation District's Intake. Progress Report to the Glenn-Colusa Irrigation District, Willows, California. 91 pp.