

Chapter 8 Literature Cited

8.1 Published References

- Adams, P. B., C. B. Grimes, J. E. Hightower, S. T. Lindley, and M. L. Moser. 2002. Status Review for North American Green Sturgeon, *Acipenser medirostris*. National Marine Fisheries Service, Northwest Fisheries Science Center and United States Geological Survey, North Carolina Cooperative Fish and Wildlife Research Unit. Available: <<http://www.nmfs.noaa.gov/pr/pdfs/statusreviews/greensturgeon.pdf>.
- Adams, P. B., C. B. Grimes, J. E. Hightower, S. T. Lindley, M. L. Moser and M. J. Parsley. 2007. Population status of North American green sturgeon, *Acipenser medirostris*. *Environmental Biology of Fishes* 79:339–356.
- Ahearn, D. S., J. H. Viers, J. F. Mount, and R. A. Dahlgren. 2006. Priming the Productivity Pump: Flood Pulse Driven Trends in Suspended Algal Biomass Distribution Across a Restored Floodplain. *Freshwater Biology* 51:1417–1433.
- Ahul, J. S. B. 1991. Factors Affecting Contributions of the Tadpole Shrimp, *Lepidurus packardii*, to Its Oversummering Egg Reserves. *Hydrobiologia* 212:137–143.
- Albertson J. D., J. G. Evens. 2000. California clapper rail. In: Olofson PR (ed) Baylands Ecosystem Species and Community Profiles: Life Histories and Environmental Requirements of Key Plants, Fish and Wildlife. San Francisco Bay Area Wetland Ecosystem Goals Project. San Francisco Bay Regional Water Quality Control Board, Oakland, CA, pp 332-341.
- Albertson, J. D. 1995. Ecology of the California Clapper Rail in South San Francisco Bay. Thesis. San Francisco State University, San Francisco, California, U.S.A.
- Alpine A. and J. Cloern. 1992. Trophic interactions and direct physical effects control phytoplankton biomass and production in an estuary. *American Society Limnology and Oceanography*. pp 946 – 955.
- Amweg, E. L., D. P. Weston, J. You, M. J. Lydy. 2006. Pyrethroid Insecticides and Sediment Toxicity in Urban Creeks from California and Tennessee, 40 ENVTL. SCI. TECH. 1700, 1700–06 (2006).
- Anchor QEA. 2018. Evaluation of the Effects of Summer Operation of the Suisun Marsh Salinity Control Gates. Prepared for the California Department of Water Resources. May.
- Anderson, P. R. 1968. The reproductive and developmental history of the California tiger salamander. Masters of Arts thesis, Fresno State College, Fresno, California.
- Anderson, C. and M. Rigney. 1980. California Least Tern Breeding Survey, South San Francisco Bay – 1981. U.S. Department of the Interior, Fish and Wildlife Service, San Francisco Bay National Wildlife Refuge Special Report.

- Anderson, J. 2018. Using river temperature to optimize fish incubation metabolism and survival: a case for mechanistic models. Researchgate Preprint. 10.1101/257154.
- Anderson J. J., E. Gurariea and R. Zabelb. 2005. Mean free-path length theory of predator–prey interactions: Application to juvenile salmon migration. *Ecological Modelling* (186)196–211.
- Anderson, J. T., C. B. Watry, and A. Gray. 2007. Upstream Fish Passage at a Resistance Board Weir Using Infrared and Digital Technology in the Lower Stanislaus River, California: 2006-2007 Annual Data Report.
- Anderson, L. E. and M. Plummer. 2017. Recreational demand for shellfish harvesting under environmental closures. *Marine Resource Economics*, 32(1):43-57.
- Andrews, S.W., E.S. Gross, and P.H. Hutton. 2017. Modeling salt intrusion in the San Francisco Estuary prior to anthropogenic influence. *Continental Shelf Research* 146:58-81.
<http://dx.doi.org/10.1016/j.csr.2017.07.010>
- Arthur, J. F., M. D. Ball, and S. Y. Baughman. 1996. Summary of Federal and State Water Project Environmental Impacts in the San Francisco Bay–Delta Estuary, California. In: J. T. Hollibaugh (ed.). *San Francisco Bay: The Ecosystem*. San Francisco, CA: Pacific Division, American Association for the Advancement of Science. Pages 445–495.
- Atwater B. F., S. G. Conrad, J. N. Dowden, C. W. Hedel, R. L. MacDonald, and W. Savage. 1979. History, Landforms, and Vegetation of the Estuary's Tidal Marshes. In: Conomos TJ, editor. *San Francisco Bay: The Urbanized Estuary*. San Francisco, CA: Pacific Division, American Association for the Advancement of Science. p 347-385.
- Austin, C. C., and H. B. Shaffer. 1992. Short, Medium, and Long-Term Repeatability of Locomotor Performance in the Tiger Salamander, *Ambystoma californiense*. *Functional Ecology* 6:145–153.
- Azat, J. 2018. GrandTab 2018.04.09. California Central Valley Chinook Population Database Report. California Department of Fish and Wildlife. Available from
<http://www.calfish.org/ProgramsData/Species/CDFWAnadromousResourceAssessment.aspx>
- Bain, D. 1990. Examining the Validity of Inferences Drawn from Photo-Identification Data, with Special Reference to Studies of the Killer Whale (*Orcinus orca*) in British Columbia. In *Individual recognition of cetaceans: Use of photo-identification and other techniques to estimate population parameters*, edited by Hammond, P. S., S. A. Mizroch, and G. P. Donovan. Report of the International Whaling Commission, Special Issues 12:93-100.
- Baird R.W. and H. Whitehead. 2000. Social organization of mammal-eating killer whales: group stability and dispersal patterns. *Canadian Journal of Zoology*. 78: 2096-2105.
- Balcomb, K.C. III. 2006. Winter distribution of southern resident killer whales, 2003-2006. In: *Proceedings of the 2006 Symposium on Southern Resident Killer Whales*, 3-5 April, 2006. NOAA Western Regional Center Auditorium, Seattle, WA.
- Balcomb, K. C., J. R. Boran, and S. L. Heimlich. 1982. Killer whales in greater Puget Sound. In: *Thirty-Second Report of the International Whaling Commission*. Reports for the International Whaling Commission 32:681–685.

- Baldwin, D. H., J. A. Spromberg, T. K. Collier, and N. L. Scholz. 2009. A Fish of Many Scales: Extrapolating Sublethal Pesticide Exposures to the Productivity of Wild Salmon Populations. *Ecological Applications* 19(8): 2004-2015.
- Barnett-Johnson, R., C. B. Grimes, C. F. Royer, and C. J. Donohoe. 2007. Identifying the contribution of wild and hatchery Chinook salmon (*Oncorhynchus tshawytscha*) to the ocean fishery using otolith microstructure as natural tags. *Canadian Journal of Fisheries and Aquatic Sciences* 64(12):1683-1692.
- Barnhart, R. A. 1986. Species profiles: life histories and environmental requirements of coastal fishes and invertebrates (Pacific Southwest), steelhead. U.S. Fish and Wildlife Service, Biological Report 82 (11.60). 21 pp.
- Barr, C. B. 1991. The distribution, habitat and status of the Valley elderberry longhorn beetle *Desmocerus californicus dimorphus* fisher (Insecta: Coleoptera: Cerambycidae). Report to US Fish and Wildlife Service, Sacramento.
- Barraclough, W. E. 1964. Contribution to the marine life history of the eulachon *Thaleichthys pacificus*. *Journal of the Fisheries Research Board of Canada* 21(5):1333-1337.
- Barry, S. J., and G. M. Fellers. 2013. History and Status of the California red-legged frog (*Rana draytonii*) in the Sierra Nevada, California, USA in *Herpetological Conservation and Biology* 8(2):456–502. Submitted: 7 May 2012; Accepted: 7 May 2013; Published: 15 September 2013.
- Barry, S. J., and H. B. Shaffer. 1994. The Status of the California Tiger Salamander (*Ambystoma californiense*) at Lagunita: A 50-Year Update. *Journal of Herpetology* 28:159–164.
- Bartholow, J. M. 2000. Estimating Cumulative Effects of Clearcutting on Stream Temperatures. *Rivers* 7.
- Baskerville-Bridges, B., J. C. Lindberg, and S. I. Doroshov. 2004. The Effect of Light Intensity, Alga Concentration, and Prey Density on the Feeding Behavior of Delta Smelt Larvae. *American Fisheries Society Symposium* 39: 219–227.
- Baumgartner L. J., N. K. Reynoldson, L. Cameron, J. G. Stanger. 2009, Effects of irrigation pumps on riverine fish. *Fish Manag Ecol* 16: 429–437.
- Baxter et al. 1999. Summary of Biological Information on the Northern Anchovy (*Engraulis mordax* Girard). California Cooperative Oceanic Fisheries Investigations. Reports Volume XI, July 1 1963 to June 30 1966.
- Baxter, R., K. Hieb, S. DeLeón, K. Fleming, and J. Orsi. 1999. Report on the 1980-1995 fish, shrimp, and crab sampling in the San Francisco Estuary, California. Interagency Ecological Program for the Sacramento-San Joaquin Estuary, Technical Report 63, California Department of Fish and Game, Stockton, CA, 503 p.
- Baye, P. R. 2008. Vegetation management in terrestrial edges of tidal marshes, western San Francisco Estuary, California. Prepared for Marin Audubon Society, Mill Valley, CA.
- 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 for State Water Contractors by S.P. Cramer and Associates, Inc., Gresham, Oregon. 46 pages.
- Bell, M. C. 1991. Fisheries handbook of engineering requirements and biological criteria. Third edition. U.S. Army Corps of Engineers, Office of the Chief of Engineers, Fish Passage Development and Evaluation Program, North Pacific Division, Portland, Oregon.
- Bellinger M. R. , Banks M. A., Bates S. J., Crandall E. D., Garza J. C., Sylvia G., Lawson P. W. 2015. Geo-referenced, abundance calibrated ocean distribution of Chinook salmon (*Oncorhynchus tshawytscha*) stocks across the West coast of North America. PLoS ONE , 10: e0131276-25.
- Bennett, W. A. 2005. Critical Assessment of the Delta Smelt Population in the San Francisco Estuary, California. San Francisco Estuary and Watershed Science 3(2). Available at: <http://repositories.cdlib.org/jmie/sfews/vol3/iss2/art1/>.
- Bennett, W. A. and J. R. Burau. 2015. Riders on the storm: selective tidal movements facilitate the spawning migration of threatened Delta Smelt in the San Francisco Estuary. Estuaries and Coasts 38(3):826-835. doi: <http://dx.doi.org/10.1007/s12237-014-9877-3>.
- Bensen, R. L., S. Turo, and B. W. McCovey, Jr. 2007. Migration and Movement Patterns of Green Sturgeon (*Acipenser medirostris*) in the Klamath and Trinity Rivers, California, USA. Environmental Biology of Fishes 79:269–279.
- Bergman, P. B., G. Schumer, S. Blankenship, E. Campbell. 2016. Detection of Adult Green Sturgeon using Environmental DNA Analysis. PLoS ONE 11(4): e0153500. doi:10.1371/journal.pone.0153500
- Bever, A. J., M. L. MacWilliams, and D. K. Fullerton. Estuaries and Coasts. 2018. 41: 1943. <https://doi.org/10.1007/s12237-018-0403>.
- Bever, A. J., M. L. MacWilliams, B. Herbold, L. R. Brown and F. V. Feyrer. 2016. Linking hydrodynamic complexity to delta smelt (*Hypomesus transpacificus*) distribution in the San Francisco Estuary, USA. San Francisco Estuary and Watershed Science 14(1). doi: <http://dx.doi.org/10.15447/sfews.2016v14iss1art3>
- Bigg, M. A., P. F. Olesiuk, G. M. Ellis, J. K. B. Ford, and K. C. Balcomb III. 1990. Social organization and genealogy of resident killer whales (*Orcinus orca*) in the coastal waters of British Columbia and Washington State. In Individual recognition of cetaceans: Use of photo-identification and other techniques to estimate population parameters, edited by Hammond, P. S., S. A. Mizroch, and G. P. Donovan. Report of the International Whaling Commission Special Issue 12:383-406.
- Bigg, M. A. 1982. An assessment of killer whale (*Orcinus orca*) stocks off Vancouver Island, British Columbia. Rep. Int. Whal. Comm., 32:655-666.
- Bishop, D. M., R. L. Carstensen, and G. H. Bishop. 1989b. Report on environmental studies concerning the proposed Haines airport reconstruction: [Revision of Section A, Hydrology], second phase. ENVIRONAID consultants report to Alaska Department of Transportation and Public Facilities. Juneau.

- Bisson et al, 1987. Large woody debris in forested streams in the Pacific Northwest: Past, present and future. Contribution No. 57. Pages 143-190 in: E. Salo and T. Cundy, editors. Proceeding of a symposium on streamside management: Forestry and fisheries interactions. University of Washington, Seattle, Washington, USA.
- Bjorkstedt, E. P., B. C. Spence, J. C. Garza, D. G. Hankin, D. Fuller, W. E. Jones, J. J. Smith, and R. Macedo. 2005. An analysis of historical population structure for evolutionarily significant units of Chinook salmon, coho salmon, and steelhead in the north-central California coast recovery domain. U.S. Department of Commerce. NOAA Technical Memorandum. NMFS-SWFSC-382.
- Blahm, T. H., and McConnell, R. J. 1971. Mortality of adult eulachon (*Thaleichthys pacificus*) subjected to sudden increases in water temperature. Northwest Science 45(3):178-82.
- Bobzien, S., and J. E. DiDonato. 2007. The Status of the California Tiger Salamander (*Ambystoma californiense*), California Red-Legged Frog (*Rana draytonii*), and Foothill Yellow-Legged Frog (*Rana boylei*), and Other Herpetofauna in the East Bay Regional Park District, California. East Bay Regional Park District.
- Boles, G. L., S. M. Turek, C. C. Maxwell, and D. M. McGill. 1988. Water Temperature Effects on Chinook Salmon (*Oncorhynchus tshawytscha*) with Emphasis on the Sacramento River: A Literature Review. California Department of Water Resources. 42 p.
- Bouley, P., and W. J. Kimmerer. 2006. Ecology of a highly abundant, introduced cyclopoid copepod in a temperate estuary. Marine Ecology Progress Series 324: 219–228.
- Brander, S. M. 2013. From ‘Omics to Otoliths: Responses of an Estuarine Fish to Endocrine Disrupting Compounds across Biological Scales. PLoS One. 2013; 8(9).
- Brandes, P. L., and J. S. McLain. 2001. Juvenile Chinook salmon abundance, distribution, and survival in the Sacramento-San Joaquin Estuary. Contributions to the Biology of the Central Valley Salmonids, Fish Bulletin 179: Volume 2. Sacramento (CA): California Department of Fish and Game. p 39-136.
- Bratovich, P. M., G. W. Link, P. B. J. Ellrott, and J. A. Piñero. 2004. Impacts on Lower American River salmonids and recommendations associated with Folsom Reservoir Operations to meet Delta water quality objectives and demands. 24 p. <http://www.waterforum.org/wp-content/uploads/2015/09/Impacts-to-LAR-Resources-Report-2004.pdf>
- Brett, J. R., W. Clarke, J. E. Shelbourn. 1982. Experiments on thermal requirements for growth and food conversion efficiency of juvenile chinook salmon, *Oncorhynchus tshawytscha*. Canadian technical Reports in Fisheries and Aquatic Science. 1127. 1-29.
- Brooks, M., E. Fleishman, L. Brown, P. Lehman, I. Werner, N. Scholz, C. Mitchelmore, J. Lovvorn, M. Johnson, D. Schlenk, S. van Drunick, J. Drever, D. Stoms, A. Parker, and R. Dugdale. 2012. Life Histories, Salinity Zones, and Sublethal Contributions of Contaminants to Pelagic Fish Declines Illustrated with a Case Study of San Francisco Estuary, California, USA. Estuaries and Coasts 35(2):603-621. doi: <http://dx.doi.org/10.1007/s12237-011-9459-6>
- Brown L. R., L. M. Komoroske, R. W. Wagner, T. Morgan-King, J. T. May, R. E. Connon, N. A. Fangue. 2016. Coupled downscaled climate models and ecophysiological metrics forecast habitat

- compression for an endangered estuarine fish: PloS ONE 11(1): e0146724. doi: <http://dx.doi.org/10.1371/journal.pone.0146724>
- Brown, L. R., R. Baxter, G. Castillo, L. Conrad, S. Culberson, G. Erickson, F. Feyrer, S. Fong, K. Gehrts, L. Grimaldo, B. Herbold, J. Kirsch, A. Mueller-Solger, S. Slater, K. Souza, and E. Van Nieuwenhuysse. 2014. Synthesis of studies in the fall low-salinity zone of the San Francisco Estuary, September–December 2011: U.S. Geological Survey Scientific Investigations Report 2014–5041. U.S. Geological Survey, Reston, VA.
- Brown, L. R., W. A. Bennett, R. W. Wagner, T. Morgan-King, N. Knowles, F. Feyrer, D. H. Schoelhamer, M.T. Stacey, and M. Dettinger. 2013. Implications for future survival of delta smelt from four climate change scenarios for the Sacramento-San Joaquin Delta, California. *Estuaries and Coasts*. DOI 10.1007/s12237-013-9585-4. Available on the internet at < <http://link.springer.com/article/10.1007%2Fs12237-013-9585-4#>>.
- Buchanan, R. 2013. OCAP 2011 Steelhead Tagging Study: Statistical Methods and Results. Prepared for Bureau of Reclamation, Bay Delta Office, Sacramento CA. August 9, 2013. 110 p.
- Buchanan, R. A. 2018a. 2014 Six-Year Acoustic Telemetry Steelhead Study: Statistical Methods and Results. Seattle: Columbia Basin Research, School of Aquatic & Fishery Sciences, University of Washington; 2018. Available from: [sites/default/files/papers/UW 6yr steelhead report 2014 FINAL.PDF](https://sites/default/files/papers/UW_6yr_steelhead_report_2014_FINAL.PDF)
- Buchanan, R. A. 2018b. 2015 Six-Year Acoustic Telemetry Steelhead Study: Statistical Methods and Results. Seattle: Columbia Basin Research, School of Aquatic and Fishery Sciences, University of Washington; 2018. Available from: [sites/default/files/papers/UW 6yr steelhead report 2015 FINAL.pdf](https://sites/default/files/papers/UW_6yr_steelhead_report_2015_FINAL.pdf)
- Buchanan, R. A. 2018c. 2016 Six-Year Acoustic Telemetry Steelhead Study: Statistical Methods and Results. Seattle: Columbia Basin Research, School of Aquatic and Fishery Sciences, University of Washington; 2018. Available from: [sites/default/files/papers/UW 6yr steelhead report 2016 FINAL.pdf](https://sites/default/files/papers/UW_6yr_steelhead_report_2016_FINAL.pdf)
- Buchanan, R. A., J. R. Skalski, P. L. Brandes, and A. Fuller. 2013. Route use and survival of juvenile Chinook salmon through the San Joaquin River Delta. *North American Journal of Fisheries Management* 33(1):216–229.
- Buchanan R. A., P. L. Brandes, and J. R. Skalski. 2018. Survival of Juvenile Fall-Run Chinook Salmon through the San Joaquin River Delta, California, 2010–2015. *North American Journal of Fisheries Management*. 38 (3): 663-679. Availalble at: <https://doi.org/10.1002/nafm.10063>.
- Busby, P. J., T. C. Wainwright, G. J. Bryant, L. J. Lierheimer, R. S. Waples, F. W. Waknitz, and I. V. Largomarsino. 1996. Status review of West Coast steelhead from Washington, Idaho, Oregon, and California. National Marine Fisheries Service, Northwest Fisheries Sceince Center and Southwest Region Protected Resources Division, NOAA Technical Memorandum, NMFS-NWFSC-27
- Bush, E. E. 2017. Migratory Life Histories and Early Growth of the Endangered Estuarine Delta Smelt (*Hypomesus transpacificus*). M.S. Thesis. University of California, Davis, Davis, CA.

- Cal Fish. 2018. Lower Sacramento River Green Sturgeon Telemetry Monitoring.
<https://www.calfish.org/ProgramsData/ConservationandManagement/CentralValleyMonitoring/LowerSacramentoRiverGreenSturgeonTelemetryMonitoring.aspx>
- CALFED. 2000. North of the Delta Offstream Storage Investigations. Integrated Storage Investigations. CALFED Bay-Delta Program.
- California Advisory Committee on Salmon and Steelhead Trout. 1988. California Advisory Committee Restoring the balance. 1988 annual report. 84 p.
- California Coastal Chinook Salmon ESU Central California Coast Coho Salmon ESU. National Marine Fisheries Service. Southwest Region, Long Beach, CA. 54 pp.
- California Cyanobacteria and Harmful Algal Blooms Network. 2010. Cyanobacteria in California Recreational Waterbodies: Providing Voluntary Guidance about Harmful Algal Blooms, Their Monitoring, and Public Notification. Viewed online at:
http://www.mywaterquality.ca.gov/monitoring_council/cyanohab_network/docs/2010_guidance.pdf. Accessed: Oct. 29, 2018. Last updated: Sept. 2008.
- California Department of Finance. 2012. Available at:
<http://www.dof.ca.gov/Forecasting/Demographics/projections/>.
- California Department of Fish and Game (CDFG). 1929. Sacramento-San Joaquin Salmon (*Oncorhynchus tshawytscha*) Fishery of California. By G. H. Clark. 1929; 73 p., 32 figs.
- California Department of Fish and Game (CDFG). 1929. The Commercial Fish Catch of California for the Years 1926 and 1927. By the Bureau of Commercial Fisheries. 1929; 93 p., 52 figs.
- California Department of Fish and Game (CDFG). 1965. California fish and wildlife plan. Volume III supporting data: Part B, inventory salmon-steelhead and marine resources, available from California Department of Fish and Game, 1416 Ninth St., Sacramento, CA 95814.
- California Department of Fish and Game (CDFG). 1994. California Endangered Species Act Memorandum of Understanding by and between Contra Costa Water District and California Department of Fish and Game Regarding the Los Vaqueros Project (Ref. No. 9339). January 24, 1994.
- California Department of Fish and Game (CDFG). 1996. Steelhead Restoration and Management Plan for California. Inland Fisheries Division, California Department of Fish and Game, Sacramento, California.
- California Department of Fish and Game (CDFG). 1997–2012. Unpublished data. Suisun Marsh Unit, Stockton, CA.
- California Department of Fish and Game (CDFG). 1998. Report to the Fish and Game Commission: Report to the Fish and Game Commission: A Status Review of the Spring-Run Chinook Salmon (*Oncorhynchus tshawytscha*) in the Sacramento River Drainage. Candidate Species Status Report 98-01. Sacramento, CA: Department of Fish and Game.
- California Department of Fish and Game (CDFG). 2002. Unpublished data from 1994-1996. Entrainment of Listed Fish Species at Pumping Plant #1 of the Contra Costa Canal and the Headworks at the

- Rock Slough Intake. Monitoring required for the NMFS 1993 Los Vaqueros Reservoir biological opinion.
- California Department of Fish and Game (CDFG). 2004. Sacramento River Winter-run Chinook Salmon. Biennial Report 2002 – 2003. Prepared for the Fish and Game Commission. June 2004
- California Department of Fish and Game (CDFG). 2009. California Endangered Species Act Incidental Take Permit No. 2081-2009-001-03. Department of Water Resources California State Water Project Delta Facilities and Operations. Yountville, CA: California Department of Fish and Game, Bay Delta Region.
- California Department of Fish and Game (CDFG). 2009. California Endangered Species Act Incidental Take Permit No. 2081-2009-013-03. Contra Costa Water District Maintenance and Operation of the Los Vaqueros Project and Alternative Intake Project. Signed November 9, 2009.
- California Department of Fish and Game (CDFG). 2010. Report to the Fish and Game Commission: A status review of the California tiger salamander (*Ambystoma californiense*). Nongame Wildlife Program Report 2010-4. January 11, 2010.
- California Department of Fish and Game (CDFG). 2011. East Marin County San Francisco Bay Stream Habitat Assessment Reports, Miller Creek. Surveyed 2009, Report Completed Feb, 2011.
- California Department of Fish and Wildlife (CDFW). Undated. Drought Stressor Monitoring Case Study: Dissolved Oxygen Monitoring in the San Joaquin and Stanislaus Rivers. Available from: <https://www.wildlife.ca.gov/Drought/Projects/San-Joaquin>. Accessed on October 29, 2018.
- California Department of Fish and Wildlife (CDFW). 2013. California Natural Diversity Database, RareFind 3, Version 3.1.0. June.
- California Department of Fish and Wildlife (CDFW). 2015. Aquatic Invasive Species Monitoring at CDFW Hatcheries. October. Available: <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=59228> Accessed: December 4, 2018.
- California Department of Fish and Wildlife (CDFW). 2015. Aquatic Plant Risk Assessment: Curlyleaf Pondweed, *Potamogeton crispus* L. Available online at: <https://dbw.parks.ca.gov/pages/28702/files/Curlyleaf%20pondweed%20Risk%20Assessment.pdf> Accessed: Dec. 13, 2018.
- California Department of Fish and Wildlife (CDFW). 2016. 2016 California Ocean Salmon Fisheries. Ocean Salmon Project.
- California Department of Fish and Wildlife (CDFW). 2018. Drought Stressor Monitoring Case Study: Dissolved Oxygen Monitoring in the San Joaquin and Stanislaus Rivers. Available at: Drought Stressor Monitoring Case Study: Dissolved Oxygen Monitoring in the San Joaquin and Stanislaus Rivers.
- California Department of Fish and Wildlife (CDFW). 2018. California Natural Diversity Database (CNDDDB), RareFind 5, Version 5.2.14. Available: <https://www.wildlife.ca.gov/Data/CNDDDB/Maps-and-Data>. Accessed: December 6, 2018.

- California Department of Fish and Wildlife (CDFW). 2018. Historical Anadromous Fish Releases from CDFW Hatcheries. Available: <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=156895> Accessed: December 19, 2018.
- California Department of Fish and Wildlife (CDFW). 2018a. Monthly Abundance Indices. <http://www.dfg.ca.gov/delta/data/fmwt/indices.asp>
- California Department of Fish and Wildlife (CDFW). 2018b. Grand Tab 2018.04.09. California Central Valley Chinook Population Database Report. Compiled 9 April 2018. <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=84381>
- California Department of Fish and Wildlife (CDFW). 2018. Lower Sacramento River Green Sturgeon Telemetry Monitoring. <https://www.calfish.org/ProgramsData/ConservationandManagement/CentralValleyMonitoring/L>
- California Department of Fish and Wildlife. 2019. California Natural Diversity Database. RareFind 5. Version 5.2.14. January.
- California Department of Fish and Wildlife and U.S. Bureau of Reclamation (CDFW and Reclamation). 2017. Hatchery and Genetics Management Plan for Trinity River Hatchery Coho Salmon. December.
- California Department of Parks and Recreation (CDPR). 2018. Submersed Aquatic Vegetation Control Program: 2017 Annual Monitoring Report. Viewed online at: <http://dbw.parks.ca.gov/pages/28702/files/2017%20SAV%20Annual%20Report%20B.pdf>. Accessed: Dec. 13, 2018.
- California Department of Parks and Recreation (CDPR). 2018b. Folsom Powerhouse State Historic Park. <https://www.parks.ca.gov/pages/501/files/FolsomPowerhouse.pdf>
- California Department of Water Resources (DWR). 2007. Morrow Island Distribution System fish entrainment study. Interim data summary report, Division of Environmental Services, Sacramento, CA.
- California Department of Water Resources (DWR). 2012. 2011 Georgiana Slough Non-Physical Barrier Performance Evaluation Project Report. California Department of Water Resources, Sacramento, CA. 9
- California Department of Water Resources (DWR). 2016. 2014 Georgiana Slough Floating Fish Guidance Structure Performance Evaluation Project Report. California Department of Water Resources, Sacramento, CA.
- California Department of Water Resources (DWR). 2015. An Evaluation of Juvenile Salmonid Routing and Barrier Effectiveness, Predation, and Predatory Fishes at the Head of Old River, 2009–2012. Prepared by AECOM, ICF International, and Turnpenny Horsfield Associates. April. California Department of Water Resources, Sacramento, CA.
- California Department of Water Resources (DWR). 2015. Aquatic Plant Risk Assessment: Curlyleaf Pondweed, *Potamogeton crispus* L. Viewed online at:

- <http://dbw.parks.ca.gov/pages/28702/files/Curlyleaf%20pondweed%20Risk%20Assessment.pdf>. Accessed: Dec. 13, 2018.
- California Department of Water Resources (DWR). 2015. Biological Assessment for the West False River Emergency Drought Barrier Project. Prepared by AECOM, July 2015. 36 pp. plus appendixes.
- California Department of Water Resources (DWR). 2016. 2014 Georgiana Slough Floating Fish Guidance Structure Performance Evaluation Project Report. California Department of Water Resources, Sacramento, CA.
- California Department of Water Resources (DWR). 2017. Yolo Bypass Salmonid Habitat Restoration and Fish Passage. Draft Environmental Impact Statement/Environmental Impact Report. December.
- California Department of Water Resources (DWR). 2018. Effect of the south Delta agricultural barriers on emigrating juvenile salmonids. Prepared by Environmental Science Associates and AECOM Technical Services, Sacramento, CA.
- California Department of Water Resources (DWR). 2019. California EcoRestore Projects. <http://resources.ca.gov/ecorestore/california-ecorestore-projects/>, accessed January 23, 2019.
- California Department of Water Resources and U.S. Bureau of Reclamation (DWR and Reclamation). 2016. Final Environmental Impact Report/Environmental Impact Statement for the Bay Delta Conservation Plan/California WaterFix—Volume I. Final EIR/EIS for the BDCP/California WaterFix. December. (DOE/EIS-0515.) (ICF 00139.14.) Prepared by ICF International, Sacramento, CA.
- California Department of Water Resources and U.S. Bureau of Reclamation (DWR and Reclamation). 2017. Yolo Bypass Salmonid Habitat Restoration and Fish Passage. Draft Environmental Impact Statement/Environmental Impact Report. December.
- Central California Irrigation District. 2011. Major Renovations Planned for Mendota Dam. Issue Three. http://www.ccidwater.org/CCID_Newsletter_2011_issue_3.pdf
- California Native Plant Society (CNPS). 2018. Rare Plant Program. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.30). Available from <http://www.rareplants.cnps.org>. Accessed: February 6, 2019.
- California Natural Resources Agency (CNRA). 2010. State of the state's wetlands. June 2010. State of California. 42p. Retrieved on September 14, 2015, from: http://www.resources.ca.gov/docs/SOSW_report_with_cover_memo_10182010.pdf
- California Natural Resources Agency (CNRA). 2016. Delta Smelt Resiliency Strategy. Available from: <http://resources.ca.gov/docs/Delta-Smelt-Resiliency-Strategy-FINAL070816.pdf> Accessed: December 3, 2018.
- California Natural Resources Agency (CNRA). 2017. Delta Smelt Resiliency Strategy Progress Report. Available: <http://resources.ca.gov/docs/Delta-Smelt-Resiliency-Strategy-Update.pdf> Accessed: January 2, 2019.

- California Regional Water Quality Control Board, Central Valley Region. 2013. Order R5-2013-0124. Amending Waste Discharge Requirements Order R5-2010-0114-01 (PDES Permit No. CA0077682) and Time Schedule Order R5-2010-0115-01. Sacramento Regional County Sanitation District. Sacramento Regional Wastewater Treatment Plant. Sacramento, California. Available at: https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/sacramento/r5-2013-0124.pdf.
- California State Coastal Conservancy, Ocean Protection Council, National Marine Fisheries Service, San Francisco Bay Conservation and Development Commission, and San Francisco Estuary Partnership. 2010. San Francisco Bay subtidal habitat goals report; Conservation planning for the submerged areas of the Bay; 50-Year Conservation Plan. California Wetlands Monitoring Workgroup (CWMW). EcoAtlas. <http://www.ecoatlas.org/regions/ecoregion/bay-delta/projects>
- Calkins, R.D., W.F. Durand, and W.H. Rich. 1940. Report of the board of consultants on the fish problem of the upper Sacramento River. Stanford Univ., 34 p. (Available from Environmental and Technical Services Division, Natl. Mar. Fish. Serv., 525 N.E. Oregon St., Suite 500, Portland, OR 97232.)
- Carlson A., F. Rahel. 2007. A Basinwide Perspective on Entrainment of Fish in Irrigation Canals. Transactions of the American Fisheries Society 136:1335–1343, 2007.
- Castillo, G., J. Morinaka, J. Lindberg, R. Fujimura, B. Baskerville-Bridges, J. Hobbs, G. Tigan, and L. Ellison. 2012. Pre-Screen Loss and Fish Facility Efficiency for Delta Smelt at the South Delta's State Water Project, California. San Francisco Estuary and Watershed Science 10(4).
- Cavallo, B., J. Merz, J. Setka. 2012. Effects of predator and flow manipulation on Chinook Salmon (*Oncorhynchus tshawytscha*) survival in an imperiled estuary. Environmental Biology of Fish. Published online April 2012. DOI 10.1007/s10641-012-9993-5.
- Cavallo, B., P. Gaskill, J. Melgo, and S. Zeug. 2015. Predicting juvenile Chinook routing in riverine and tidal channels of a freshwater estuary. Environmental Biology of Fishes 98(6):1571-1582.
- Cavallo, B. 2016. Information to support DOSS entrainment risk evaluation. Memorandum to Delta Operations for Salmonids and Sturgeon group.
- Cayan D. R., M. Tyree, M. D. Dettinger, H. Hidalgo, T. Das, E. Maurer, P. D. Bromirski, N. Graham, and R. E. Flick. 2009. Climate change scenarios and sea level rise estimates for California - 2008 Climate Change Scenarios Assessment - Final Report. California Energy Commission, PIER Report CEC500-2009-014-F.
- Center for Whale Research. 2018. Available at: <https://www.whaleresearch.com/>. Accessed December 28, 2018.
- Center for Whale Research. 2013. Southern Resident Killer Whales. Available At: <http://www.whaleresearch.com/#!orcas/cto2>
- Central Valley Regional Water Quality Control Board. 2013. *Amending Waste Discharge Requirements Order R5-2010-0114-01 (NPDES Permit No. Ca0077682) and Time Schedule Order R5-2010-0115-01*. Sacramento Regional County Sanitation District, Sacramento Regional

- Wastewater Treatment Plant, Sacramento County. Sacramento, Ca. Available: http://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/sacramento/r5-2013-0124.pdf.
- Chesser T. R., R. C. Banks, C. Cicero, J. L. Dunn, A. W. Kratter, I. J. Lovette, A. G. NavarroSigüenza, P. C. Rasmussen, J. V. Remsen, Jr., J. D. Rising, D. F. Stotz, and K. Winker. 2014. Fifty-Fifth Supplement to the American Ornithologists' Union Check-list of North American Birds. The Auk: October 2014, Vol. 131, No. 4
- Christensen, I. 1984. Growth and reproduction of killer whales, *Orcinus orca*, in Norwegian coastal waters. In: Reproduction in Whales, Dolphins and Porpoises: Proceedings of the Conference Cetacean Reproduction: Estimating Parameters for Stock Assessment and Management, W. F. Perrin, R. L. Brownell, Jr, D. P. DeMaster (eds.). Reports for the International Whaling Commission Special Issue. 6:253-258
- Clear Creek Technical Team. 2018. Annual Report for the Coordinated Long-Term Operations Biological Opinion.
- Cloern, J. E., A. Alpine, B. Cole, R. Wong, J. Arthur, and M. Ball. 1983. River discharge controls phytoplankton dynamics in Northern San Francisco Bay Estuary. Estuarine, Coastal and Shelf Science. 16. 415-429. 10.1016/0272-7714(83)90103-8.
- Cloern, J. E. and A. D. Jassby. 2012. Drivers of change in estuarine-coastal ecosystems: Discoveries from four decades of study in San Francisco Bay. Reviews of Geophysics 50, RG4001, 33 pp.
- Cloern, J. E., Morinaka, N. Brown, R. L., Cayan, D., Dettinger, M.D., Morgan, T. L., Schoellhammer, D. H., Stacey, M. T., van der Wegen, M., Wagner, R. W., and A.D. Jassby. 2011. Projected evolution of California's San Francisco Bay-Delta-River system in a century of climate change. PLoS ONE 6(9): e24465. DOI: 10.371/journal.pone.0024465.
- Clothier, W. D. 1953. Fish loss and movement in irrigation diversions from the West Gallatin River, Montana. Journal of Wildlife Management 17: 144-158. Cohen, A. N., and Carlton, J.T.. 1995. Nonindigenous Aquatic Species in a United States Estuary: A Case Study of the Biological Invasion of the San Francisco Bay and Delta. U.S. Fish and Wildlife Service, Washington DC.
- Cohen, A. N. and J. T. Carlton. 1998. Accelerating Invasion Rate in a High Invaded Estuary. Science 279:555-558.
- Cole, B. E. and J. E. Cloern. 1984. Significance of biomass and light availability to phytoplankton productivity in San Francisco Bay. Marine Ecology Progress Series. 17: 15-24. Collinge, S.K., M. Holyoak, C.B. Barr, and J.T. Marty. 2001. Riparian habitat fragmentation and population persistence of the threatened valley elderberry longhorn beetle in Central California. Biological Conservation 100:103-113.
- Connon, R. E., Deanovic, L. A., Fritsch, E. B., D'Abronzio, L. and I Werner. 2011. Sublethal responses to ammonia exposure in the endangered delta smelt; *Hypomesus transpacificus* (Fam. Osmeridae). Aquatic Toxicology. (105): 369-377.
- Conrad L., A. J. Bibian, K. Weinersmith, D. DeCarion, M. Young, P. Crain, E. Hestire, M. Santose, A. Sih. 2016. Novel species interactions in a highly modified estuary: association of Largemouth

- Bass with Brazilian Waterweed *Egeria densa*. *Trans Am Fish Soc* 145:249- 263 doi: <http://dx.doi.org/10.1080/00028487.2015.1114521>
- Cook, D. G., Trenham, P. C., and Northern, P. T. 2006. Demography and Breeding Phenology of the California Tiger Salamander (*Ambystoma Californiense*) in an Urban Landscape. *Northwestern Naturalist* 87: 215–224.
- Cook, R. R. 1992. An inventory of the mammals of Caswell Memorial State Park. California Dept. Parks and Recreation, Lodi, Final Rep., 30 pp.
- Cordoleani, F., C. Michel, J. Notch, M. Daniels, H. Brown, M. Johnson, J. Israel, and E. Buttermore. 2019. Sacramento River spring pulse flow proposal to increase Central Valley Spring and Fall-run Chinook Salmon out-migration. Draft Proposal. January 2, 2019. 24p.
- Cosco Busan Oil Spill Trustees. 2012. *Cosco Busan Oil Spill Final Damage Assessment and Restoration Plan/Environmental Assessment*. Prepared by California Department of Fish and Game, California State Lands Commission, National Oceanic and Atmospheric Administration, United States Fish and Wildlife Service, National Park Service, Bureau of Land Management.
- Cramer Fish Sciences. 2006a. Stanislaus River Weir Update—November 20 through December 3, 2006. Stanislaus River Weir Email Summary dated December 6, 2006. Available from: <http://fishsciences.net/postcards/postcard6.htm>.
- Cramer Fish Sciences. 2006b. Stanislaus River Weir Update—October 9 through October 22, 2006. Stanislaus River Weir Email Summary dated October 23, 2006. Available from: <http://fishsciences.net/postcards/postcard3.htm>.
- Cramer Fish Sciences. 2006c. Stanislaus River Weir Update—September 25 through October 8, 2006. Stanislaus River Weir Email Summary dated October 10, 2006. Available from: <http://fishsciences.net/postcards/postcard2.htm>.
- Cramer Fish Sciences. 2006d. Stanislaus River Weir Update—September 6 through September 24, 2006. Stanislaus River Weir Email Summary dated September 27, 2006. Available from: <http://fishsciences.net/postcards/postcard1.htm>.
- Culberson, S., L. Bottorff, M. Roberson, and E. Soderstrom. 2008. Geophysical Setting and Consequences of Management in the Bay-Delta. Pages 37-54 in M.C. Healey, M.D. Dettinger, and R.B. Norgaard, eds. *The State of Bay-Delta Science*, 2008. Sacramento, CA: CALFED Science Program.
- Culberson, S. D. 2001. The interaction of physical and biological determinants producing vegetation zonation in tidal marshes of the San Francisco Bay Estuary, California. Ph.D. Dissertation, University of California, Davis, CA.
- Damon, L.J., S.B. Slater, R.D. Baxter, and R.W. Fujimura. 2016. Fecundity and reproductive potential of wild female delta smelt in the upper San Francisco Estuary, California. *California Fish and Game* 102(4): 188-210. Available online at: <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=141865&inline>

- Damon, L. J., S. B. Slater, R. D. Baxter, and R. W. Fujimura. 2016. Fecundity and reproductive potential of wild female delta smelt in the upper San Francisco Estuary, California. *California Fish and Game* 102(4): 188-210. Available online at: <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=141865&inline>
- Davidson, C., H. B. Shaffer, and M. R. Jennings. 2002. Spatial Tests of the Pesticide Drift, Habitat Destruction, UV-B and Climate Change Hypotheses for California Amphibian Declines. *Conservation Biology* 16:1588–1601.
- Davis, J. A., D. Yee, J. N. Collins, S. E. Schwarzbach, S. N. Luoma. 2003. Potential for increased mercury accumulation in the estuary food web. *San Francisco Estuary and Watershed Science* [online serial]. VOL 1, Issue 1 (October 2003), Article 2.
- Davis, M. 1974. Experiments in Nesting Behavior of the Least Tern *Sterna Albifrons* Browni. *Proceedings of the Linnaean Society*. New York 72:25-43. As cited in Rigney, M. and S. Granholm. 2005. Life History Account for Least Tern. California Wildlife Habitat Relationships System, California Department of Fish and Wildlife, California Interagency Wildlife Task Group. Available: <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=1817>.
- De la Fuente, J., T. Lauent, D. Elder, R. VendeWater, A. Olsen. 2000. Watershed condition assessment beta-test results of northern province forests. U.S. Forest Service, Pacific Southwest Region.
- Dege, M. and L. R. Brown. 2004. Effect of outflow on spring and summertime distribution and abundance of larval and juvenile fishes in the upper San Francisco Estuary. *American Fisheries Society Symposium* 39: 49-65.
- DeGroot, D. S. 1927. The California clapper rail: its nesting habits, enemies, and habitat. *Condor* 29: 259-270.
- Del Rio, A., B. Davis, N. Fangue, and A. Todgham. In press. Combined effects of warming and hypoxia on early life stage Chinook salmon physiology and development. *Conservation Physiology*
- del Rosario, R. B., Y. J. Redler, K. Newman, P. L. Brandes, T. Sommer, K. Reece, and R. Vincik. 2013. Migration Patterns of Juvenile Winter-Run-Sized Chinook Salmon (*Oncorhynchus tshawytscha*) through the Sacramento–San Joaquin Delta. *San Francisco Estuary and Watershed Science* 11(1).
- Delta Modeling Associates, Inc. (DMA). 2014. Low Salinity Zone Flip Book, Version 2.0. December 31.
- Delta Operations for Salmonids and Sturgeon (DOSS). 2018. Annual Report of Activities October 1, 2017, to September 30, 2018.
- Demko, D., C. Gemperle, A. Phillips, & S. Cramer. 2000. Outmigrant trapping of juvenile salmonids in the lower Stanislaus River Caswell State Park site 1999. Gresham (OR): SP Cramer & Associates, Inc. 135 p.
- Deng, X., J. P. Van Eenennaam, and S. I. Doroshov. 2002. Comparison of Early Life Stages and Growth of Green and White Sturgeon. *Transactions of the American Fisheries Society* 28:237–248.
- Dettinger, M., B. Udall and A. Georgakakos. 2015. Western water and climate change. *Ecological Applications* 25(8): 2069-2093. doi: <http://dx.doi.org/10.1890/15-0938.1>

- Dettinger, M. D. 2005. From climate-change spaghetti to climate-change distributions for 21st Century California. San Francisco Estuary and Watershed Science Available on the internet at <<http://repositories.cdlib.org/jmie/sfews/vol3/iss1/art4>>.
- Detting, M. D., and C. A. Howell. 2011. Status of the Yellow-billed Cuckoo along the Sacramento River in 2010. Report to California Department of Fish and Game. PRBO Contribution #1794.
- Dettman, D. H., D. W. Kelley, and W. T. Mitchell. 1987. The influence of flow on Central Valley salmon. Report prepared for the California Department of Water Resources. July 1987.
- Dooling R. J. and A. N. Popper. 2007. The Effects of Highway Noise on Birds. Prepared for the California Department of Transportation, Division of Environmental Analysis. Available at: http://www.dot.ca.gov/hq/env/bio/files/caltrans_birds_10-7-2007b.pdf. Drinkwater KF, Frank KT. (1994) Effects of river regulation and diversion on marine fish and invertebrates. *Aquat Conserv Mar Freshw Ecosyst* 4: 135–151.
- Dubrovsky N. M. Kratzer, C. R., Brown, L. R., Gronberg J. M., and K. R. Burow. 1998. Water quality in the San Joaquin-Tulare Basins, California, 1992-95. Circular 1159. U. S. Geological Survey.
- Dugdale, R. C., F. P. Wilkerson, A. E. Parker, A. Marchi and K. Taberski. 2012. River Flow and Ammonium Discharge Determine Spring Phytoplankton Blooms in an Urbanized Estuary. *Estuarine Coastal and Shelf Science* 115:187-199.
- Dugdale, R. C., F. P. Wilkerson and A. E. Parker. 2016. The effect of clam grazing on phytoplankton spring blooms in the low-salinity zone of the San Francisco Estuary: A modelling approach. *Ecological Modelling* 340:1-16. doi: <http://dx.doi.org/10.1016/j.ecolmodel.2016.08.018>
- Dugdale, R. C., F. P. Wilkerson, V. E. Hogue and A. Marchi. 2007. The role of ammonium and nitrate in spring bloom development in San Francisco Bay. *Estuarine, Coastal, and Shelf Science* 73:17-29.
- Alpine, E. and Cloern, J. 1992. Trophic interactions and direct physical effects control phytoplankton biomass and production in an. *Limnology & Oceanography*. 37.
- Earley, J. T., D. J. Colby, and M. R. Brown. 2013. Juvenile salmonid monitoring in Sacramento River tributaries, California, from October 2009 through September 2010. U.S. Fish and Wildlife Service, Red Bluff Fish and Wildlife Office, Red Bluff, California.
- East Contra Costa County Habitat Conservancy. 2006. East Contra Costa County Habitat Conservation Plan and Natural Community Conservation Plan. Available: <http://www.co.contra-costa.ca.us/depart/cd/water/HCP/archive/final-hcp-rev/pdfs/hcptitleverso_9-27-06.pdf>.
- Eddleman, W. R., F. L. Knopf, B. Meanley, F. A. Reid, and R. Zembal. 1988. Conservation of North American rallids. *Wilson Bulletin* 100:458-475.
- Elliott J. M. 1981. Some aspects of thermal stress on freshwater teleosts. *Stress and Fish*. A.D. Pickering (ed). p 209-245. Eisenbeis, Gerhard. "Artificial night lighting and insects: attraction of insects to streetlamps in a rural setting in Germany." *Ecological consequences of artificial night lighting* 2 (2006): 191-198.
- Enos, C., J. Sutherland, and M. L. Nobriga. 2007. Results of a Two Year Fish Entrainment Study at Morrow Island Distribution System in Suisun Marsh. *IEP Newsletter* 20(1):10-19.

- Ensminger M. P., R. Budd, K. C. Kelley, K. S. Goh. 2013. Pesticide occurrence and aquatic benchmark exceedances in urban surface waters and sediments in three urban areas of California, USA, 2008–2011. *Environ Monit. Assess* 185:3697–710. doi: <http://link.springer.com/article/10.1007/s10661-012-2821-8>
- Eulachon Research Council. 2000. Notes summarizing meetings in Terrace, B.C. (May 4), New Westminster, and Bella Coola, B.C. (May 9). Informal joint report prepared jointly by B.C. Forests, Department of Fisheries and Oceans-Canada.
- Erickson, D. and A. H. Webb. 2007. Spawning Periodicity, Spawning Migration, and Size at Maturity of Green Sturgeon, *Acipenser medirostris*, in the Rogue River, Oregon. *Environmental Biology of Fishes*. 79. 255-268. 10.1007/s10641-006-9072-x.
- Eriksen, C. and D. Belk. 1999. *Fairy Shrimps of California's Pools, Puddles, and Playas*. Eureka, CA: Mad River Press.
- ESA PWA. 2012. Attachment 5E.A: BDCP South Delta Habitat And Flood Corridor Planning Corridor Description And Assessment Document. Attachment to Appendix 5.E: Habitat Restoration. Revised Administrative Draft. Bay Delta Conservation Plan. March. Sacramento, CA. Prepared for: California Department of Water Resources, Sacramento, CA.
- Evens, J., and G. W. Page. 1983. The ecology of rail populations at Corte Madera Ecological Reserve: with recommendations for management. Report by the Point Reyes Bird Observatory. Stinson Beach, CA. 62 pp.
- Evens, J., and G. W. Page. 1986. Predation on black rails during high tides in salt marshes. *The Condor* 88:107-109.
- Everest, F. H. 1969. Habitat selection and spatial interaction of juvenile Chinook salmon and steelhead in two Idaho streams. PhD. Dissertation, University of Idaho, Moscow, ID. 77 pp
- Everest, F. H., R.L. Beschta, J.C. Scrivener, K.V. Koski, J.R. Sedell, and C.J. Cederholm. 1987. Fine sediment and salmonid production: a paradox.
- Federal Energy Regulatory Commission (FERC). 2011. Final Environmental Impact Statement for Hydropower License. McCloud-Pit Hydroelectric Project FERC Project No. 2106, California. Available at: https://www.waterboards.ca.gov/waterrights/water_issues/programs/water_quality_cert/docs/mcccloud_ferc2106/mccloudpit2106_feis2011.pdf
- Feist, B. E., E. Buhle, P. Arnold, J. W. Davis, N. L. Scholz. 2011. Landscape ecotoxicology of coho salmon spawner mortality in urban streams. *PLoS ONE*, 6(8):e23424.
- Felleman, F. L., J. R. Heimlich-Boran, and R. W. Osborne. 1991. The feeding ecology of killer whales (*Orcinus orca*) in the Pacific Northwest. Pp. 113–147 in *Dolphin Societies: Discoveries and Puzzles*, edited by Karen Pryor and K.S. Norris. Berkeley: University of California Press
- Fera, S. A., M. D. Rennie, and E. S. Dunlop. 2017. Broad shifts in the resource use of a commercially harvested fish following the invasion of dreissenid mussels. *Ecology* 98(6):1681-1692.

- Ferrari, M. C. O., L. Ranåker, K. L. Weinersmith, M. J. Young, A. Sih, and J. L. Conrad. 2014. Effects of turbidity and an invasive waterweed on predation by introduced largemouth bass. *Environmental Biology of Fishes* 97(1):79-90.
- Feyrer F., B. Herbold, S. Matern, and P. Moyle. 2003. Dietary shifts in a stressed fish assemblage: Consequences of a bivalve invasion in the San Francisco Estuary. *Environmental Biology of Fishes*. 67 (3): 277-288.
- Feyrer, F., K. Newman, M.L. Nobriga and T.R. Sommer. 2011. Modeling the effects of future outflow on the abiotic habitat of an imperiled estuarine fish. *Estuaries and Coasts*: 34(1):120-128. DOI 10.1007/s12237-010-9343-9.
- Feyrer, F., M. L. Nobriga and T. R. Sommer. 2007. Multi-decadal trends for three declining fish species: habitat patterns and mechanisms in the San Francisco Estuary, California, USA. *Canadian Journal of Fisheries and Aquatic Sciences* 64:723-734.
- Fiedler, P. L., M. E. Keever, B. J. Grewell, and D. J. Partridge. 2007. Rare plants in the Golden Gate Estuary (California): the relationship between scale and understanding. *Australian Journal of Botany* 55: 206–220.
- FishBIO. 2012. California Central Valley Steelhead. Available at <https://fishbio.com/field-notes/fish-biology-behavior/california-central-valley-steelhead>.
- FishBIO. 2015. Adult Chinook Salmon Adults Observed in the Video Weir and Provided in Excel Tables During the Spring on the Stanislaus River, Unpublished Data.
- Fisher, F. W. 1994. Past and Present Status of Central Valley Chinook Salmon. *Conservation Biology* Volume 8: 870-873.
- Fisher, R. N., and H. B. Shaffer. 1996. The decline of amphibians in California's Great Central Valley. *Conservation Biology* 10:1387–1397.
- Fisler, G. F. 1965. Adaptations and speciation in harvest mice of the marshes of the San Francisco Bay. *University of California Publications in Zoology* 77: 1–108.
- Fitzpatrick, B. M., and H. B. Shaffer. 2004. Environment-Dependent Admixture Dynamics in a Tiger Salamander Hybrid Zone. *Evolution* 58:1282–1293.
- Fitzpatrick, B. M., J. R. Johnson, D. K. Kump, H. B. Shaffer, J. J. Smith, and S. R. Voss. 2009. Rapid Fixation of Non-Native Alleles Revealed by Genome-Wide SNP Analysis of Hybrid Tiger Salamanders. *BMC Evolutionary Biology* 9:176.
- Foerster, K. S., J. E. Takekawa, and J. D. Albertson. 1990. Breeding density, nesting habitat, and predators of the California clapper rail. Unpubl. Rpt. No. SFBNWR-116400-90-1, prep. for San Francisco Bay NWR, Newark, CA. 46 pp.
- Fong, S., S. Louie, I. Werner. 2016. Contaminant Effects on California Bay-Delta Species and Human Health. *San Francisco Estuary and Watershed Science*, 14(4).
<https://escholarship.org/uc/item/52m780xj>
- Footote, A. D. R. W. Osborne, A. R. Hoelzel. 2004. Whale-call response to masking boat noise. *Nature*. 418: 910.

- Ford M. J., H. Fuss, B. Boelts, E. LaHood, J. J. Hard. 2006. Changes in run timing and natural smolt production in a naturally spawning coho salmon (*Oncorhynchus kisutch*) stream after 60 years of intensive hatchery supplementation. *Canadian Journal of Fisheries and Aquatic Sciences*. 2006;63:2343–2355
- Ford, J. K. B., and G. M. Ellis. 2005. Prey selection and food sharing by fish-eating ‘resident’ killer whales (*Orcinus orca*) in British Columbia. Canadian Science Advisory Secretariat Research Document 2005/041
- Ford, J. K. B., G. M. Ellis, and P. F. Olesiuk. 2005. Linking prey and population dynamics: did food limitation cause recent declines of “resident” killer whales (*Orcinus orca*) in British Columbia. Canadian Science Advisory Secretariat Research Document 2005/042
- Ford, J. K. B., G. M. Ellis, L. G. Barrett-Lennard, A. B. Morton, R. S. Palm, and K. C. Balcomb III. 1998. Dietary specialization in two sympatric populations of killer whales (*Orcinus orca*) in coastal British Columbia and adjacent waters. *Canadian Journal of Zoology* 76:14566–1471
- Ford, J. K. B., and G. M. Ellis. 2005. Prey selection and food sharing by fish-eating ‘resident’ killer whales (*Orcinus orca*) in British Columbia. Fisheries and Oceans Canada, Canadian Science Advisory Secretariat, 2005/041.
- Ford, J. K. B., G. M. Ellis, and K. C. Balcomb. 2000. Killer whales: the natural history and genealogy of *Orcinus orca* in B.C. and Washington State. University of British Columbia, Vancouver, B.C.
- Ford, J. K. B., G. M. Ellis, L. G. Barrett-Lennard, A.B. Morton, R.S. Palm, and K.C. Balcomb III. 1998. Dietary specialization in two sympatric populations of killer whales (*Orcinus orca*) in coastal B.C. and adjacent waters. *Canadian Journal of Zoology* 76:1456-1471.
- Ford, J. 2006. An assessment of critical habitats of resident killer whales in waters on the Pacific coast of Canada. *Can. Sci. Advis. Sec. Res. Doc.* 72. 1-34.
- Franks, S. 2014. Possibility of Natural Producing Spring-run Chinook Salmon in the Stanislaus and Tuolumne Rivers. National Oceanic Atmospheric Administration.
- Frantzych, J., T. Sommer, and B. Schreier. 2018. Physical and Biological Responses to Flow in a Tidal Freshwater Slough Complex. *San Francisco Estuary and Watershed Science* 16(1).
- Frost, N. 2015. California least tern breeding survey, 2014 season. California Department of Fish and Wildlife, Wildlife Branch, Nongame Wildlife Program Report, 2015-01. Sacramento, CA. 23 pp.
- Frost, N. 2016. California least tern breeding survey, 2015 season. California Department of Fish and Wildlife, Wildlife Branch, Nongame Wildlife Program Report, 2016-01. Sacramento, CA. 24 pp.
- Frost, N. 2017. California least tern breeding survey, 2016 season. California Department of Fish and Wildlife, Wildlife Branch, Nongame Wildlife Program Report, 2017-03. Sacramento, CA. 20 pp.
- Fry, D. H., Jr. 1961. King Salmon Spawning Stocks of the California Central Valley, 1940–1959. *California Fish and Game* 47(1):55–71.
- Gaines, D., and Laymon, S.A. 1984. Decline, status and preservation of the Yellowbilled Cuckoo in California. *W. Birds* 15:49-80.

- Garrett, K., and J. Dunn. 1981. *Birds of Southern California*. Los Angeles Audubon Society.
- Gauthreaux, S. and C. Belser. 2006. Effects of artificial night lighting on migrating birds. *Ecological Consequences of Artificial Night Lighting*. pp. 67-93. GEI Consultants. 2018. 2018 Suisun Marsh Salinity Gates Pilot Study. Delta Smelt Effects Analysis. Prepared for the California Department of Water Resources.
- Geist, D. R., C. S. Abernethy, K. D. Hand, V. I. Cullinan, J. A. Chandler, P. A. Groves. 2006. Survival, Development, and Growth of Fall Chinook Salmon, Embryos, Alevins, and Fry Exposed to Variable Thermal and Dissolved Oxygen Regimes. *Trans. Am. Fish. Soc.* 135:1462-1477.
- GenOn Delta LLC. 2011. Contra Costa Generating Station Implementation Plan for the Statewide Water Quality Control Policy on the use of Coastal and Estuarine Waters for Power Plant Cooling. Available at: https://www.waterboards.ca.gov/water_issues/programs/ocean/cwa316/powerplants/contra_costa/docs/cc_ip2011.pdf. Gewant, D. and S.M. Bollens. 2012. Fish assemblages of interior tidal marsh channels in relation to environmental variables in the upper San Francisco Estuary. *Environmental biology of fishes* 94(2):483-499. doi: <http://dx.doi.org/10.1007/s10641-011-9963-3>
- Glibert, P. M., 2010. Long-Term Changes in Nutrient Loading and Stoichiometry and Their Relationships with Changes in the Food Web and Dominant Pelagic Fish Species in the San Francisco Estuary, California, *Reviews in Fisheries Science*, 18:2, 211-232, DOI: 10.1080/10641262.2010.492059
- Gill, R., Jr. 1972. South San Francisco Bay breeding bird survey, 1971. Calif. Dept. Fish and Game, Wildlife Management Branch Administrative Report 72-6. Sacramento, CA. 69 pp.
- Giovannetti, S. L., RJ Bottaro, and M. R. Brown. 2013. Adult steelhead and late-fall Chinook salmon Monitoring on Clear Creek, California: 2011 Annual report. U.S. Fish and Wildlife Service, Red Bluff Fish and Wildlife Office, Red Bluff, California.
- Gisbert, E., J. J. Cech, and S. I. Doroshov. 2001. Routine metabolism of larval green sturgeon (*Acipenser medirostris*). *Fish Physiology and Biochemistry* 25:195-200
- Glibert, P. M., D. Fullerton, J. M. Burkholder, J. C. Cornwell, and T. M. Kana. 2011. Ecological stoichiometry, biogeochemical cycling, invasive species, and aquatic food webs: San Francisco Bay and comparative systems. *Reviews in Fisheries Science* 19: 358–417.
- Good, T. P., R. S. Waples, and P. B. Adams. 2005. Updated status of federally listed ESUs of West Coast salmon and steelhead. U.S. Department of Commerce. NOAA Technical Memorandum. NMFS-NWFSC-66.
- Gore, J. A., B. P. Kennedy, R. R. Kneib, N. E. Monsen, J. Van Sickle, D. D. Tullos. 2018. Independent Review Panel (IRP) Report for the 2017 Long-term Operations Biological Opinions (LOBO) Biennial Science Review: Report to the Delta Science Program. Delta Stewardship Council and Delta Independent Science Program.
- Grant, S. C. H., and P. S. Ross. 2002. Southern resident killer whales and risk: toxic chemicals in the British Columbia and Washington environment. Canadian Technical report of Fisheries and Aquatic Sciences 2412. Institute of Ocean Sciences. Fisheries and Oceans Canada, Sidney, BC

- Greenwood, M. 2018. Potential Effects on Zooplankton From California WaterFix Operations. Technical Memorandum to California Department of Water Resources. July 2. Available: https://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/california_waterfix/exhibits/docs/petitioners_exhibit/dwr/part2_rebuttal/dwr_1349.pdf Accessed: November 30, 2018.
- Gregory, R. S. and C. D. Levings. 1998. Turbidity reduces predation on migrating juvenile Pacific Salmon. Transactions of the American Fisheries Society. 127(2).
- Grewell, B. J, M. A. DaPrato, P. R. Hyde, and E. Rejmánková. 2003. Experimental reintroduction of endangered soft bird's beak to restored habitat in Suisun Marsh. Final report. Report for CALFED Ecosystem Restoration Project 99-N05.
- Grewell, B. J. 2005. Population census and status of the endangered soft bird's-beak (*Cordylanthus mollis* ssp. *mollis*) at Benicia State Recreation Area and Rush Ranch in Solano County, California. Report for Solano County Water Agency.
- Grewell, B. J., J. C. Callaway, and W. R. Ferren, Jr. 2007. Estuarine wetlands. Pp. 124–154 in M. G. Barbour, T. Keeler-Wolf, and A. A. Schoenherr (eds.), Terrestrial Vegetation of California. University of California Press, Berkeley, CA.
- Grimaldo, L. F., W. E. Smith, and M. L. Nobriga. 2017. After the storm: Re-examining factors that affect Delta smelt (*Hypomesus transpacificus*) entrainment in the Sacramento and San Joaquin Delta. Collaborative Adaptive Management Team Report. But I think more appropriate is: Grimaldo, L.F., W.E. Smith, and M.L. Nobriga. 2017. After the storm: Re-examining factors that affect Delta smelt (*Hypomesus transpacificus*) entrainment in the Sacramento and San Joaquin Delta. Unpublished manuscript.
- Grimaldo, L. F., T. Sommer, N. Van Ark, G. Jones, E. Holland, P. B. Moyle, P. Smith and B. Herbold. 2009. Factors affecting fish entrainment into massive water diversions in a freshwater tidal estuary: can fish losses be managed? North American Journal of Fisheries Management 29(5) 1253-1270. First published online on: 09 January 2011 (iFirst).
- Grinnell, J. and A. H. Miller. 1944. The distribution of the birds of California. Pacific Coast Avifauna 27:1-608.
- Grossman, G. D., T. Essington, B. Johnson, J. Miller, N. Monsen, and T. N. Pearsons. 2013. Effects of fish predation on salmonids in the Sacramento River-San Joaquin Delta and associated ecosystems. Panel Report for State of the Science Workshop on Fish Predation on Central Valley Salmonids in the Bay-Delta Watershed. 25 September.
- Gustafson, R. G., M. J. Ford, D. Teel, and J. S. Drake. 2010. Status review of eulachon (*Thaleichthys pacificus*) in Washington, Oregon, and California. US Department of Commerce, NOAA Technical Memorandum NMFS-NWFSC-105. Online at: http://www.nwfsc.noaa.gov/assets/25/7092_06162010_142619_EulachonTM105WebFinal.pdf.
- Gustafson, R. G., M. J. Ford, P. B. Adams, J. S. Drake, R. L. Emmett, K. L. Fresh, M. Rowse, E. A. K. Spangler, R. E. Spangler, D. J. Teel, and M. T. Wilson. 2012. Conservation status of eulachon in the California Current. Fish and Fisheries 13: 121–138.

- Gustafson, R.G. (Editor). 2016. Status Review Update of Eulachon (*Thaleichthys pacificus*) Listed under the Endangered Species Act: Southern Distinct Population Segment. 25 March. Seattle, WA: Northwest Fisheries Science Center, National Marine Fisheries Service.
- H. T. Harvey & Associates. 1990a. San Jose permit assistance program California clapper rail 1990 breeding surveys. Prepared for CH2MHill, Emeryville, CA.
- H. T. Harvey & Associates. 1990b. San Jose permit assistance program salt marsh harvest mouse trapping surveys, August to October 1990. Prepared for CH2MHill, Emeryville, CA. H.T.
- H.T. Harvey and Associates, 1991. San Jose permit assistance program salt marsh harvest mouse trapping surveys. Prepared for CH2M Hill. Report number 477-11. 57 p.
- H.T. Harvey and Associates. 1989. California Clapper Rail breeding survey, South San Francisco Bay. Alviso, CA. Prepared for CH2M Hill.
- H.T. Harvey and Associates. 1997. Marsh plant associations of South San Francisco Bay: 1996 comparative study including Alviso Slough. Unpubl. report, 22 January, 1997. Project No. 477-18. Prepared for the City of San Jose, CA: 117.
- Hadaway, H. C. and J. R. Newman. 1971. Differential responses of five species of salt marsh mammals to inundation. *Journal of Mammalogy*, 52: 818–820.
- Hallock, R. J., and W. F. Van Woert. 1959. A Survey of Anadromous Fish Losses in Irrigation Diversions from the Sacramento and San Joaquin Rivers. *California Fish and Game* 45(4):227–296.
- Hallock, R. J., W. F. Van Woert, and L. Shapovalov. 1961. An Evaluation of Stocking Hatchery- Reared Steelhead Rainbow Trout (*Salmo gairdnerii gairdnerii*) in the Sacramento River system. *Fish Bulletin* No. 114. Sacramento, CA: Department of Fish and Game.
- Halstead B. J., P. Valcarcel, G. D. Wylie, P. S. Coates, M. L. Casazza, and D. K. Rosenberg. 2016. Active season microhabitat and vegetation selection by giant gartersnakes associated with a restored marsh in California. *Journal of Fish and Wildlife Management* 7(2):397–407; e1944-687X. doi: 10.3996/042016-JFWM-029
- Halstead, B. J., S. M. Skalos, G. D. Wylie, M. L. Casazza. 2015. Terrestrial Ecology of Semi-Aquatic Giant Gartersnakes (*Thamnophis gigas*). *Herpetological Conservation and Biology* 10(2):633-644.
- Hamilton, S. A., and D. D. Murphy. 2018. Analysis of limiting factors across the life cycle of delta smelt (*Hypomesus transpacificus*). *Environmental Management* <https://doi.org/10.1007/s00267-018-1014-9>.
- Hammock, B. G., S. B. Slater, R. D. Baxter, N. A. Fangue, D. Cocherell, A. Hennessy, T. Kurobe, C. Y. Tai, and S. J. 2017. Foraging and metabolic consequences of semi-anadromy for an endangered estuarine fish. *PloS one* 12, no. 3 (2017): e0173497.
- Hammock, B. G., J. A. Hobbs, S. B. Slater, S. Acuña and S. J. Teh. 2015. Contaminant and food limitation stress in an endangered estuarine fish. *Science of the Total Environment* 532:316-326. doi: <http://dx.doi.org/10.1016/j.scitotenv.2015.06.018>

- Hanak, E., J. Lund, A. Dinar, B. Gray, R. Howitt, J. Mount, P. Moyle, and B. Thompson. 2011. Managing California's Water: From Conflict to Reconciliation. San Francisco: Public Policy Institute of California.
- Hannah, R., and S. Jones. 2009. 20th annual pink shrimp review. Oregon Dept. Fish Wildlife, Marine Resources Program, Newport. Online at http://www.dfw.state.or.us/MRP/publications/shrimp_newsletter2009.pdf
- Hannon, J. and B. Deason. 2008. American River Steelhead (*Oncorhynchus Mykiss*) Spawning 2001 – 2007. U.S. Department of the Interior, Bureau of Reclamation, Mid-Pacific Region.
- Hannon, J., M. Healey, and B. Deason. 2003. American River Steelhead (*Oncorhynchus Mykiss*) Spawning 2001 – 2003. U.S. Bureau of Reclamation and California Department of Fish and Game, Sacramento, CA.
- Hansen, E. C., R. C. Scherer, E. Fleishman, B. G. Dickson, and D. Krolick. 2017. Relationships between Environmental Attributes and Contemporary Occupancy of Threatened Giant Gartersnakes (*Thamnophis gigas*). Journal of Herpetology, Vol. 51, No. 2, 274–283.
- Hanson, B., R. W. Baird, J. K. B. Ford, J. Hempelmann-Halos, D. M. Van Doonik, J. R. Candy, C. K. Emmons, G. S. Schorr, B. Gisborne, K. L. Ayres, S. K. Wasser, K. C. Balcomb, K. Balcomb-Bartok, J. G. Sneva, and M. J. Ford. 2010. Species and stock identification of prey consumed by endangered southern resident killer whales in their summer range. Endangered Species Research 11:69–82
- Hard, E. J. 2018. Progress Report Division of Boating and Waterways, California Department of Parks and Recreation (DBW) February 2018. Available: <http://ucanr.edu/sites/DRAAWP/files/278760.pdf> Accessed: December 30, 2018.
- Harding, E. K., D. F. Doak, J. Albertson, and J. E. Takekawa. 1998. Predator management in San Francisco Bay wetlands: past trends and future strategies. Final Report prepared for U.S. Fish and Wildlife Service, Sacramento, CA.
- Hart, J. L. 1973. Pacific fishes of Canada. Fisheries Research Board of Canada Bulletin No. 180.
- Hart, J. L., and J. L. McHugh. 1944. The smelts (*Osmeridae*) of British Columbia. Fish. Res. Board of Canada Bull. No. 64.
- Hartman, R., B. Herbold, K. Kayfet, and S. Culberson. 2017. Chapter 3. Regional Transport Model Conceptual Model for Tidal Wetland Restoration. Pages 81-104 in S. Sherman, R. Hartman, and D. Contreras, editors. Effects of Tidal Wetland Restoration on Fish: A Suite of Conceptual Models. IEP Technical Report 91. California Department of Water Resources, Sacramento, CA.
- Harvey, T. E. 1988. Breeding biology of the California clapper rail in south San Francisco Bay. Transactions of the Western Section of the Wildlife Society 24:98-104.
- Hasenbein, M., I. Werner, L. A. Deanovic, J. Geist, E. B. Fritsch, A. Javidmehr, C. Foe, N. A. Fangue and R. E. Connon. 2014. Transcriptomic profiling permits the identification of pollutant sources and effects in ambient water samples. Science of the Total Environment 468: 688-698. doi: <http://dx.doi.org/10.1016/j.scitotenv.2013.08.081>

- Hasenbein, M., N. A. Fangue, J. P. Geist, L. M. Komoroske and R. E. Connon. 2016. Physiological stress biomarkers reveal stocking density effects in late larval Delta Smelt (*Hypomesus transpacificus*). *Aquaculture* 450:108-115. doi: <http://dx.doi.org/10.1016/j.aquaculture.2015.07.005>
- Hauser, D. D. W., M. G. Lodgson, E. E. Holmes, G. M. Van Blaricom, and R. W. Osborne. 2007. Summer distribution patterns of southern resident killer whales *Orcinus orca*: Core areas and spatial segregation of social groups. *Marine Ecology Progress Series* 351:301–210
- Hay, D. 2002. The eulachon in Northern British Columbia. In T. Pitcher, M. Vasconcellos, S. Heymans, C. Brignall, and N. Haggan (eds.), *Information supporting past and present ecosystem models of Northern British Columbia and the Newfoundland Shelf*, p. 98-107. Fisheries Centre Research Reports, Volume 10 Number 1, Fisheries Centre, Univ. British Columbia, Vancouver.
- Hay, D. E., and McCarter, P. B. 2000. Status of the eulachon *Thaleichthys pacificus* in Canada. Department of Fisheries and Oceans Canada, Canadian Stock Assessment Secretariat, Research Document 2000-145. Ottawa, Ontario.
- Hay, D. E., R. Harbo, J. Boutillier, E. Wylie, L. Convey, and P. B. McCarter. 1999. Assessment of by-catch in the 1997 and 1998 shrimp trawl fisheries in British Columbia, with emphasis on eulachons. Canadian Stock Assessment Secretariat Research Document - 1999/179.
- Hayhoe, K., D. Cayan, C. B. Field, P. C. Frumhoff, E. P. Maurer, N. L. Miller, S. C. Moser, S. H. Schneider, K. N. Cahill, E. E. Cleland, L. Dale, R. Drapek, R. M. Hanemann, L. S. Kalkstein, J. Lenihan, C. K. Lunch, R. P. Neilson, S. C. Sheridan, and J. H. Verville. 2004. Emissions pathways, climate change, and impacts on California. *Proceedings of the National Academy of Sciences of the United States of America* 101(34):12422-12427. doi: <http://dx.doi.org/10.1073/pnas.0404500101>
- Healey, M. C. 1991. Life History of Chinook Salmon (*Oncorhynchus tshawytscha*) in Pacific Salmon Life Histories. Groot, C. and Margolis, L. (ed.), Vancouver B.C.: UBC Press, pp 311-393.
- Heim W. A., K. Coale, M. Stephenson. 2003. Assessment of Ecological and Human Health Impacts of Mercury in the Bay-Delta watershed. CALFED Bay-Delta Mercury Project Draft Final Report. 36 p.
- Heimlich-Boran, J. R. 1986. Fishery Correlations with the Occurrence of Killer Whales in Greater Puget Sound. 113-131 In: *Behavioral Biology of Killer Whales*. Alan R. Liss, Inc., New York.
- Helm, B. 1998. Biogeography of Eight Large Branchiopods Endemic to California. Pages 124–139 in C. W. Witham, E. T. Bauder, D. Belk, W. R. Ferrin, Jr., and R. Orduff (eds.), *Ecology, Conservation, and Management of Vernal Pool Ecosystems—Proceedings from a 1996 Conference*. Sacramento, CA: California Native Plant Society.
- Heppell, S. S. 2007. Elasticity analysis of Green Sturgeon life history. *Environmental Biology of Fishes* 79:357–368.
- Herbold B. and T. Vendlinski. 2012. Modeling Estuarine Habitat in the Bay Delta Unifying One and Three Dimensional Approaches to Modeling X2 and the Low Salinity Zone. Drafted for the Technical Workshop on Estuarine Habitat (27 March 2012). Available at <https://www.epa.gov/sites/production/files/documents/modeling-estuarine-habitat.pdf>.

- Herman, D. P. D. G. Burrows. P. R. Wade. J. W. Durban, C. O. Matkin, R. G. LeDuc, L. G. Barrett-Lennard, M. M. Krahn. 2005. Feeding ecology of eastern North Pacific killer whales *Orcinus orca* from fatty acid, stable isotope, and organochlorine analyses of blubber biopsies. *Marine Ecology Progress Series*. 302: 275-291
- Herren, J. R. and S. S. Kawasaki. 2001. Inventory of water diversions in four geographic areas in California's Central Valley. Pages 343-355 in R. L. Brown, ed. *Contributions to biology of Central Valley salmonids*, Vol . 2. CFG Fish Bulletin 179.
- Hestir, E. L., D. H. Schoellhamer, J. Greenberg, T. Morgan-King, and S. L. Ustin. 2016. The Effect of Submerged Aquatic Vegetation Expansion on a Declining Turbidity Trend in the Sacramento-San Joaquin River Delta. *Estuaries and Coasts* 39(4):1100-1112.
- Heublein, J., B. R., R. D. Chase, P. Doukakis, M. Gingras, D. Hampton, J. A. Israel, Z. J. Jackson, R. C. Johnson, O. P. Langness, S. Luis, E. Mora, M. L. Moser, L. Rohrbach, A. M. Seesholtz, T. Sommer, and J. S. Stuart. 2017a. Life History and Current Monitoring Inventory of San Francisco Estuary Sturgeon. National Marine Fisheries Service, NOAA Technical Memorandum NOAA-TM-NMFS-SWFSC-589.
- Heublein, J., B. R., R. D. Chase, P. Doukakis, M. Gingras, D. Hampton, J. A. Israel, Z. J. Jackson, R. C. Johnson, O. P. Langness, S. Luis, E. Mora, M. L. Moser, L. Rohrbach, A. M. Seesholtz, and T. Sommer. 2017b. Improved Fisheries Management through Life Stage Monitoring: The Case for the Southern Distinct Population Segment of North American Green Sturgeon and the Sacramento-San Joaquin River White Sturgeon. National Marine Fisheries Service, NOAA Technical Memorandum NOAA-TM-NMFS-SWFSC-588.
- Hindar, K., N. Ryman, F. Utter. 1991. Genetic effects of cultured fish on natural fish populations. *Canadian Journal of Fisheries and Aquatic Sciences* 48:945-957.
- Hobbs, J. A., Q.-z. Yin, J. Burton, and W. A. Bennett. 2005. Retrospective determination of natal habitats for an estuarine fish with otolith strontium isotope ratios. *Marine and Freshwater Research* 56(5):655-660.
- Hobbs, J. A., Bennett, W. A., Burton, J. and M. Gras. 2007. Classification of larval and adult delta smelt to nursery areas by use of trace elemental fingerprinting. *Transactions of the American Fisheries Society* 136:518-527.
- Hobbs, J. A., W. A. Bennett. and J. Burton. 2006. Assessing nursery habitat quality for native smelts (Osmeridae) in the low-salinity zone of the San Francisco Estuary. *Journal of Fish Biology* 69: 907-922.
- Hoelzel, A. R. 1993. Foraging behavior and social group dynamics in Puget Sound killer whales. *Animal Behaviour*. 45: 581-591.
- Hoelzel, A. R., A. Natoli, M. Dahlheim, C. Olavarria, R. Baird, and N. Black. 2002. Low worldwide genetic diversity in the killer whale (*Orcinus orca*): implications for demographic history. *Proceedings of the Royal Society London* 269:1467-1473.

- Hoelzel, A. R., M. Dahlheim, and S. J. Stern. 1998. Low genetic variation among killer whales (*Orcinus orca*) in the eastern north Pacific and genetic differentiation between foraging specialists. *Journal of Heredity* 89(2):121–128
- Holomuzki, J. R. 1986. Predator Avoidance and Diel Patterns of Microhabitat Use by Larval Tiger Salamanders. *Ecology* 67:737–748.
- Holtby, L. Blair, and J. Charles Scrivener. 1989. Observed and simulated effects of climatic variability, clear-cut logging and fishing on the numbers of chum salmon (*Oncorhynchus keta*) and coho salmon (*O. kisutch*) returning to Carnation Creek, British Columbia. Canadian special publication of fisheries and aquatic sciences/Publication speciale canadienne des sciences halieutiques et aquatiques.
- Hooper, E. T. 1938. Geographical variation in wood rats of the species *Neotoma fuscipes*. *Univ. California Publ. Zool.* 42: 213–246.
- Horizon Water and Environment. 2017. Delta Research Station Project: Estuarine Research Station and Fish Technology Center Final Environmental Impact Report/Environmental Impact Statement. Volume I: Main Body. Prepared for: California Department of General Services on behalf of California Department of Water Resources and U.S. Fish and Wildlife Service. Howell, M., and Uusitalo, N. M. 2001. Eulachon (*Thaleichthys pacificus*) studies related to lower Columbia River channel deepening operations. Report to be submitted to the U.S. Army Corps of Engineers, Portland, Oregon. Keywords: Columbia River.
- Huang, B., C. Langpap, R. M. Adams. 2011. Using instream water temperature forecasts for fisheries management: an application in the Pacific Northwest. *Journal of the American Water Resources Association.* 47:861–876.
- Huber, E. R., and S. M. Carlson. 2015. Temporal Trends in Hatchery Releases of Fall-Run Chinook Salmon in California's Central Valley. *San Francisco Estuary and Watershed Science* 13(2).
- Huff, D. D., S. T. Lindley, B. K. Wells, and F. Chai. 2012. Green sturgeon distribution in the Pacific Ocean estimated from modeled oceanographic features and migration behavior. *PLoS One* 7(9): e45852. 12 pp.
- Hughes, J. M. 1999. "Yellow-billed Cuckoo (*Coccyzus americanus*).” In *The Birds of North America Online*. Edited by A. Poole. Ithaca, NY: Cornell Lab of Ornithology; Retrieved from the Birds of North America Online. <http://bna.birds.cornell.edu/bna/species/418>.
- Hutton, P. H., Rath, J. S., and S. B. Roy. 2017. Freshwater flow to the San Francisco Bay-Delta estuary over nine decades (Part 2): Change attribution. *Hydrological Processes.* 31(14): 2516-2529. ICF International. 2015. Biological Assessment Of Effects On Listed Fishes From The West False River Emergency Drought Barrier Project. Draft. July 10. (ICF 00208.14.) Sacramento, CA. Prepared for AECOM, Sacramento, CA. Available at : https://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/california_waterfiw/exhibits/docs/petitioners_exhibit/dwr/part2/dwr1036/ICFInternational2015.pdf
- ICF International. 2016. Biological Assessment for the California WaterFix. July. (ICF 00237.15.) Sacramento, CA. Prepared for United States Department of the Interior, Bureau of Reclamation, Sacramento, CA.

- ICF Jones & Stokes. 2010. Final Hatchery and Stocking Program Environmental Impact Report/Environmental Impact Statement. (SCH # 2008082025.) Prepared for California Department of Fish and Game and U.S. Fish and Wildlife Service. January.
- ICF. 2017. Public Water Agency 2017 Fall X2 Adaptive Management Plan Proposal. Submitted to United States Bureau of Reclamation and Department of Water Resources. Draft. August 30. (ICF 00508.17.) Sacramento, CA.
- ICF. 2018. Fish Monitoring Report for the Rock Slough Fish Screen Facility – November 16-30, 2018. Submitted December 31, 2018. San Francisco, California.
- Interagency Ecological Program (IEP). 2007a. Summary for Policymakers. Pp. 1–18. In: Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change. [Solomon, S., D. Qin, M. Manning, Z. Chen, M. Marquis, K.B. Averyt, M. Tignor, and H.L. Miller (eds.)]. Cambridge University Press, Cambridge, UK, and New York, NY. 996 pp.
- Interagency Ecological Program (IEP). 2015. An updated conceptual model of Delta Smelt biology: our evolving understanding of an estuarine fish. IEP Management, Analysis and Synthesis Team. Interagency Ecological Program for the San Francisco Bay/Delta Estuary. Technical Report 90. California Department of Water Resources.
http://www.water.ca.gov/iep/docs/Delta_Smelt_MAST_Synthesis_Report_January%202015.pdf
- Interagency Ecological Program for the Sacramento–San Joaquin Estuary. 2001. Suisun Ecological Workgroup final report to the State Water Resources Control Board. November. Technical Report 68. Sacramento, CA. Available at: <https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/Environmental-Services/Interagency-Ecological-Program/Files/IEP-Technical-Reports/TR68-Suisun-Ecological-Workgroup-Final-Report-to-the-State-Water-Resources-Control-Board.pdf>
- Interagency Ecological Program Management, Analysis, and Synthesis Team (IEP MAST). 2015. An updated conceptual model of Delta Smelt biology: our evolving understanding of an estuarine fish. Technical Report 90. January. Interagency Ecological Program for the San Francisco Bay/Delta Estuary, Sacramento, CA.
- Intergovernmental Panel on Climate Change (IPCC). 2007. The scientific basis. Contribution of the Working Group I to the 4th Assessment Report of the Intergovernmental Panel on Climate Change. Alley, R., T. Bernsten, N. L. Bindoff, Z. Chen, A. Chidthaisong, P. Friedlingstein, J. Gregory, G. Hegerl, M. Heimann, B. Hewiston, B. Hoskins, F. Joos, J. Jouzel, V. Kattsov, U. Lohmann, M. Manning, T. Matsumo, M. Molina, N. Nicholls, J. Overpeck, D. Qin, G. Raga, V. Ramaswamy, J. Ren, M. Rusticucci, S. Solomon, R. Somerville, T. F. Stocker, P. Stott, R. F. Souffer, P. Whetton, R. A. Wood, D. Wratt. 21 pp. Available at <<http://www.ipcc.ch/>>.
- Israel, J. A., J. F. Cordes, M. A. Blumberg, and B. May. 2004. Geographic Patterns of Genetic Differentiation among Collections of Green Sturgeon. *North American Journal of Fisheries Management* 24:922–931.
- Jabusch, T., P. Trowbridge, A. Wong, M. Heberger. 2018. Assessment of Nutrient Status and Trends in the Delta in 2001-2016: Effects of drought on ambient concentrations and trends. March 2018.

- Jackson, Z. J. and J. P. Van Eenennaam. 2013. 2012 San Joaquin River sturgeon spawning survey. Stockton Fish and Wildlife Office, Anadromous Fish Restoration Program, U.S. Fish and Wildlife Service, Lodi, California.
- James A. 2004. Decreasing sediment yields in northern California: Vestiges of hydraulic gold-mining and reservoir trapping. Conference paper: Sediment Transfer through the Fluvial System. Proceedings of the Moscow Symposium, August 2004. IAHS Publication 288.
- Jameson, E. W., Jr., and H. J. Peeters. 1988. California Mammals. University of California Press.
- Jassby, A. D. and J. E. Cloern. 2000. Organic matter sources and rehabilitation of the Sacramento-San Joaquin Delta (California, USA). Aquatic Conservation: Marine and Freshwater Ecosystems 10(5):323-352. https://sfbay.wr.usgs.gov/publications/pdf/jassby_2000_organic.pdf.
- Jassby, A. D., J.E Cloern, and B. E. Cole. 2002. Annual primary production: patterns and mechanisms of change in a nutrient-rich tidal ecosystem. Limnology and Oceanography 47:698-712.
- Jassby, A. D., W. J. Kimmerer, S. G. Monismith, C. Armor, J. E. Cloern, T. M. Powell, J. R. Schubel and T. J. Vendlinski. 1995. Isohaline position as a habitat indicator for estuarine populations. Ecological Applications 5(1): 272-289.
- Jeffries, K. M., R. E. Connon, B. E. Davis, L. M. Komoroske, M. T. Britton, T. Sommer, A. Todgham and N. A. Fangue. 2016. Effects of high temperatures on threatened estuarine fishes during periods of extreme drought. Journal of Experimental Biology 219(11):1705-1716. doi: <http://dx.doi.org/10.1242/jeb.134528>
- Jenkins, J., L. Takata, P. Goertler, B. Schreier, L. Conrad, N. Rasmussen, and H. Green. 2018. In the Weeds: Fish Predators and Predation Risk in North Delta Flooded Islands Treated and Untreated for Invasive Aquatic Vegetation. Poster presentation at 10th Biennial Bay-Delta Science Conference, Sacramento, CA, September 10-12, 2018.
- Jennings, M. R., and M. P. Hayes. 1994. Amphibian and Reptile Species of Special Concern in California. Rancho Cordova, CA: California Department of Fish and Game, Inland Fisheries Division.
- Johnson R. C., P. K. Weber, J. D. Wikert, M. L. Workman, R. B. MacFarlane, M. J. Grove. 2012. Managed Metapopulations: Do Salmon Hatchery ‘Sources’ Lead to In-River ‘Sinks’ in Conservation? PLoS ONE 7(2): e28880.
- Johnson, R. and 15 others. 2017. Science advancements key to increasing management value of life stage monitoring networks for endangered Sacramento River winter-run Chinook Salmon in California. San Francisco Estuary and Watershed Science. 41 p.
- Johnson, R. C., J. C. Garza, R. B. MacFarlane, C. B. Grimes, C. C. Phillis, P. L. Koch, P. K. Weber, and M. H. Carr. 2016. Isotopes and genes reveal freshwater origins of Chinook salmon *Oncorhynchus tshawytscha* aggregations in California's coastal ocean. Marine Ecology Progress Series 548:181-196.
- Johnston, R. F. 1957. Adaptation of salt marsh mammals to high tides. Journal of Mammalogy, 38:529-531.

- Johnston, R. F. 1956. Predation by short-eared owls on a Salicornia salt marsh. *Wilson Bull.* 68:91-102.
- Katibah, E. F. 1984. A brief history of riparian forests in the Central Valley of California. In *California Riparian Systems: Ecology, Conservation, and productive management*. Edited by R.E. Warner and K.M. Hendrix. Univ. of Cal. Press, California. Pages 23–29.
- Katz, J. V. E., C. Jeffres, J. L. Conrad, T. R. Sommer, J. Martinez, and S. Brumbaugh. 2017. Floodplain farm fields provide novel rearing habitat for Chinook salmon. *PLoS ONE* 12(6): e0177409. <https://doi.org/10.1371/journal.pone.0177409>
- Kayfetz, K. and Kimmerer, W. 2017. Abiotic and biotic controls on the copepod *Pseudodiaptomus forbesi* in the upper San Francisco Estuary. *Marine Ecology Progress Series*. 581. 10.3354/meps12294.
- Kelly, P. A., Edgarian, T. K., Lloyd, M. R., Phillips, and S. E. 2011. *Conservation Principles for the Riparian Brush Rabbit & Riparian Woodrat*. California State University Stanislaus Endangered Species Recovery Program.
- Kelly, P. A. 2015. Personal Communication. Riparian Brush Rabbit Range in South Delta. Email to Heather Swinney, forward to Rebecca Sloan. Dec. 18, 2015.
- Kennedy, T. 2008. Stanislaus River salmonid density and distribution survey report (2005-2007). Draft prepared by Fishery Foundation of California for the Bureau of Reclamation Central Valley Project Improvement Act.
- Kennedy, T. and T. Cannon. 2005. Stanislaus River Salmonid Density and Distribution Survey Report (2002-2004). Fishery Foundation of California. Prepared for US Bureau of Reclamation, Central Valley project Improvement Act. October 2005. 20051027StanislausSnorkel_covers2002-2004.doc
- Killam, D. 2008. Results of the 2007 Cow Creek Video Station fall-run Chinook salmon escapement. SRSSAP Technical Report No. 08-02.
- Kimmerer, W. J. 2002. Effects of freshwater flow on abundance of estuarine organisms: Physical effects or trophic linkages? *Marine Ecology Progress Series* 243: 39-55.
- Kimmerer, W. J. 2002a. Physical, biological and management responses to variable freshwater flow into the San Francisco Estuary. *Estuaries* 25: 1275-1290.
- Kimmerer, W. J. 2004. Open water processes of the San Francisco Estuary: from physical forcing to biological processes. *San Francisco Estuary and Watershed Science*. Available on the internet at <http://repositories.cdlib.org/jmie/sfews/vol2/iss1/art1>.
- Kimmerer, W. J. 2008. Losses of Sacramento River Chinook salmon and delta smelt to entrainment in water diversions in the Sacramento-San Joaquin Delta. *San Francisco Estuary and Watershed Science*, 6:2 (2). Available on the internet at <http://repositories.cdlib.org/jmie/sfews/vol6/iss2/art2>.
- Kimmerer, W. J., and J. J. Orsi. 1996. Causes of long-term declines in zooplankton in the San Francisco Bay estuary since 1987, p. 403-424. In J. T. Hollibaugh [ed.], *San Francisco Bay: The Ecosystem*.

- Kimmerer, W. J. and J. K. Thompson. 2014. Phytoplankton Growth Balanced by Clam and Zooplankton Grazing and Net Transport into the Low-Salinity Zone of the San Francisco Estuary. *Estuaries and Coasts*, Pre-print published online: January 7.
- Kimmerer, W. J., and K. A. Rose. 2018. Individual-Based Modeling of Delta Smelt Population Dynamics in the Upper San Francisco Estuary III. Effects of Entrainment Mortality and Changes in Prey. *Transactions of the American Fisheries Society* 147(1):223-243.
- Kimmerer, W. J., E. S. Gross, A. M. Slaughter, and J. R. Durand. 2018. Spatial Subsidies and Mortality of an Estuarine Copepod Revealed Using a Box Model. *Estuaries and Coasts*.
- Kimmerer, W. J., E. S. Gross, and M. L. MacWilliams. 2009. Is the Response of Estuarine Nekton to Freshwater Flow in the San Francisco Estuary Explained by Variation in Habitat Volume? *Estuaries and Coasts* 32(2):375-389.
- Kimmerer, W. J., J. H. Cowan, L. W. Miller, and K. A. Rose. 2000. Analysis of an estuarine striped bass (*Morone saxatilis*) population: influence of density-dependent mortality between metamorphosis and recruitment. *Canadian Journal of Fisheries and Aquatic Sciences* 57(2):478-486.
- Kimmerer, W. J., M. L. MacWilliams, and E. S. Gross. 2013. Variation of Fish Habitat and Extent of the Low-Salinity Zone with Freshwater Flow in the San Francisco Estuary. *San Francisco Estuary and Watershed Science* 11(4).
- Kimmerer, W. J., T. R. Ignoffo, K. R. Kayfetz, and A. M. Slaughter. 2018a. Effects of freshwater flow and phytoplankton biomass on growth, reproduction, and spatial subsidies of the estuarine copepod *Pseudodiaptomus forbesi*. *Hydrobiologia* 807:113-130.
- Kimmerer, W., T. R. Ignoffo, B. Bemowski, J. Moderan, A. Holmes, and B. Bergamaschi. 2018c. Zooplankton Dynamics in the Cache Slough Complex of the Upper San Francisco Estuary. *San Francisco Estuary and Watershed Science* 16(3).
- Kindel, F. 1984. Riparian protection from Corps of Engineers projects. Pp. 895-898, in California riparian systems ecology, conservation, and productive management (R. E. Warner and K. M. Hendrix, eds.). Univ. California Press, Berkeley, 1053 pp.
- King, J. L., M. A. Simovich, and R. C. Brusca. 1996. Species Richness, Endemism and Ecology of Crustacean Assemblages in Northern California Vernal Pools. *Hydrobiologia* 328:85-116.
- Kingsford, R. T. 2000. Ecological impacts of dams, water diversions and river management on floodplain wetlands in Australia . *Austral Ecol* 25: 109-127.
- Kjelson M. A., P. F. Raquel, F. W. Fisher. 1981. The life-history of fall run juvenile Chinook salmon, *Oncorhynchus-Tshawytscha*, in the Sacramento San Joaquin Estuary of California. *Estuaries*. 4:285-285. Kjelson M. A., P. F. Raquel, F. W. Fisher.. 1982. Life history of fall-run juvenile chinook salmon, *Oncorhynchus tshawytscha*, in the Sacramento-San Joaquin estuary, California. *Estuarine Comparisons*. 393-411.
- Klimley, A. P., E. D. Chapman, J. J. Cech, D. E. Cocherell, N. A. Fangue, M. Gingras, Z. Jackson, E. A. Miller, E. A. Mora, J. B. Poletto, A. M. Schreier, A. Seescholtz, K. J. Sulak, M. J. Thomas, D. Woodbury, M. T. Wyman. 2015. Sturgeon in the Sacramento-San Joaquin Watershed: New

- Insights to Support Conservation and Management. San Francisco Estuary and Watershed Science. 13: 1-19.
- Knowles, N. and D.R. Cayan. 2002. Potential effects of global warming on the Sacramento/San Joaquin watershed and the San Francisco estuary. *Geophysical Research Letters* 29(18). doi: <http://dx.doi.org/10.1029/2001GL014339>
- Knutson, A. C. and J. J. Orsi. 1983. Factors Regulating Abundance and Distribution of the Shrimp *Neomysis mercedis* in the Sacramento-San Joaquin Estuary, *Transactions of the American Fisheries Society*, 112:4, 476-485, DOI: 10.1577/1548-8659(1983)112<476:FRAADO>2.0.CO;2.
- Kocan R., P. Hershberger, G. Sanders, J. Winton. 2009. Effects of temperature on disease progression and swimming stamina in Ichthyophonus-infected rainbow trout, *Oncorhynchus mykiss* (Walbaum). *J Fish Dis* 32:835–843.
- Komoroske, L., R. E. Connon, J. Lindberg, B. S. Cheng, G. Castillo, M. Hasenbein, N. A. Fangue. 2014. Ontogeny influences sensitivity to climate change stressors in an endangered fish. *Conserv Physiol* 2:1–13.
- Komoroske, M., K. M. Jeffries, R. E. Connon, J. Dexter, M. Hasenbein, C. Verhille and N. A. Fangue. 2016. Sublethal salinity stress contributes to habitat limitation in an endangered estuarine fish. *Evolutionary Applications*. doi: <http://dx.doi.org/10.1111/eva.12385>
- Krahn, M. M., M. J. Ford, W. F. Perrin, P. R. Wade, R. P. Angliss, M. B. Hanson, B. L. Taylor, G. M. Ylitalo, M. E. Dahlheim, J. E. Stein, and R. S. Waples. 2002. Status review of southern resident killer whales (*Orcinus orca*) under the Endangered Species Act. U.S. Department of Commerce, NOAA Technical Memo NMFS-NWFSC-54.
- Krahn, M. M., M. J. Ford, W. F. Perrin, P. R. Wade, R. P. Angliss, M. B. Hanson, B. L. Taylor, G. M. Ylitalo, M. E. Dahlheim, J. E. Stein, and R. S. Waples. 2004. Status review of southern resident killer whales (*Orcinus orca*) under the Endangered Species Act. U.S. Department of Commerce, NOAA Technical Memo NMFS-NWFSC-62.
- Kratina, P., R. Mac Nally, W.J. Kimmerer, J.R. Thomson, M. Winder. 2014. Human-induced biotic invasions and changes in plankton interaction networks. *Journal of Applied Ecology* 51(4):1066-1074. doi: <http://dx.doi.org/10.1111/1365-2664.12266>
- Kratville, D. 2010. California Department of Fish and Game Rationale for Effects of Exports. California Department of Fish and Game, Sacramento, CA.
- Kruse, S. 1991. The interactions between killer whales and boats in Johnstone Strait, B.C. Pages 149-159 in K. Pryor and K.S. Norris, eds. *Dolphin Societies: Discoveries and Puzzles*. University of California Press, Berkeley, CA
- Kuvila, K. M. and G. E. Moon. 2004. Potential Exposure of Larval and Juvenile Delta Smelt to Dissolved Pesticides in the Sacramento-San Joaquin Delta, California. *American Fisheries Society Symposium*. 39: 228-241.
- Kurobe, T., M.O. Park, A. Javidmehr, F.C. Teh, S.C. Acuña, C.J. Corbin, A.J. Conley, W.A. Bennett and S.J. Teh. 2016. Assessing oocyte development and maturation in the threatened Delta Smelt, *Hypomesus transpacificus*. *Environmental Biology of Fishes* 99(4):423-432. doi: <http://dx.doi.org/10.1007/s10641-016-0483-z>

- Kus, B. E. 2002. Fitness consequences of nest desertion in an endangered host, the Least Bell's Vireo. *Condor* 104:795-802.
- Kynard, B., E. Parker, and T. Parker. 2005. Behavior of Early Life Intervals of Klamath River Green Sturgeon, *Acipenser medirostris*, with a Note on Body Color. *Environmental Biology of Fishes* 72:85-97.
- Laabs, D. M., M. L. Allaback, and S. G. Orloff. 2001. Pond and Stream Breeding Amphibians. Chapter 5. In: J. E. Vollmar (ed.). *Wildlife and Rare Plant Ecology of Eastern Merced County's Vernal Pool Grasslands*, Merced County. Merced, CA: University of California Development Office. 193-229.
- Laetz, C. A., D. H. Baldwin, T. K. Collier, V. Hebert, J. D. Stark, and N. L. Scholz. 2009. The Synergistic Toxicity of Pesticides Mixtures: Implications for Risk Assessment and the Conservation of Endangered Pacific Salmon. *Environmental Health Perspectives* 117(3):348-353.
- Lambson, G. H., 1899. U.S. Commission of Fish and Fisheries. Comm. Rept 1898. 53pp
- Lambson, G. H., 1900. U.S. Commission of Fish and Fisheries. Comm. Rept 1899. 94pp
- Lambson, G. H., 1901. U.S. Commission of Fish and Fisheries. Comm. Rept 1900. 85 pp.
- Lambson, G. H., 1902. U.S. Commission of Fish and Fisheries. Comm. Rept 1901. 74pp.
- Lambson, G. H., 1904. U.S. Commission of Fish and Fisheries. Comm. Rept 1902. 71pp.
- Langer, O. E., B. G. Shepherd, and P. R. Vroom. 1977. Biology of the Nass River eulachon (*Thaleichthys pacificus*). Department of Fisheries and Environment Canada, Fisheries and Marine Service, Technical Report Series No. PAC, T-77-10.
- Latour, R. J. 2016. Explaining Patterns of Pelagic Fish Abundance in the Sacramento-San Joaquin Delta. *Estuaries and Coasts* 39(1):233-247. doi: <http://dx.doi.org/10.1007/s12237-015-9968-9>
- Lawler, S. P., D. Dritz, T. Strange, and M. Holyoak. 1999. Effects of Introduced Mosquitofish and Bullfrogs on the Threatened California Red-Legged Frog. *Conservation Biology* 13:613-622.
- Laymon, S. A. 1980. Feeding and Nesting Behavior of the Yellow-Billed Cuckoo in the Sacramento Valley. Wildlife Management Administrative Report 80-2. Sacramento, CA: California Department of Fish and Game.
- Laymon, S. A. 1998. Yellow-Billed Cuckoo (*Coccyzus americanus*). In *The Riparian Bird Conservation Plan: A Strategy for Reversing the Decline of Riparian-Associated Birds in California*. California Partners in Flight. Available: http://www.prbo.org/calpif/htmldocs/species/riparian/yellow-billed_cuckoo.htm.
- Laymon, S. A., and M. D. Halterman. 1987. Can the Western Subspecies of the Yellow-billed Cuckoo Be Saved from Extinction? *Western Birds* 18:19-25.
- Lehman, P. W., Marr, K., Boyer, G.L., Acuna, S. and S. J. 2013. The long-term trends and causal factors associated with *Microcystis* abundance and toxicity in San Francisco Estuary and implications for climate change impacts. *Hydrobiologia*. 718: 141-158.

- Lehman, P. W., Kendall, C., Guerin, M. A., Young, M. B., Silva, S. R., Boyer, G. L., and S. J. 2014. The Characterization of the Microcystis Bloom and Its Nitrogen Supply in San Francisco Estuary Using Stable Isotopes. *Estuaries and Coasts*. (38): 165-178.
- Lehman, P., T. Kurobe, S. Lesmeister, M. Mizel, D. Baxa, A. Tung, and S. Teh. 2017. "Impacts of the 2014 severe drought on Microcystis blooms in the San Francisco Estuary." *Harmful Algae* 63(3): pp. 94-108. [Journal]. Viewed online at: <https://www.sciencedirect.com/science/article/pii/S1568988316302177>. Accessed: Oct. 29, 2018. Last updated: Feb. 17, 2017.
- Lehman, P., S. Mayr, L. Mecum, and C. Enright. 2010. The freshwater tidal wetland Liberty Island, CA was both a source and sink of inorganic and organic material to the San Francisco Estuary. *Aquatic Ecology* 44(2):359–372.
- Leicester, M. and J. Smith. 2014. Stevens Creek Environmental Conditions and Fish Resources in 2013. 21 January 2014. California Department of Fish and Wildlife and San Jose State University. 47 pp.
- Leidy, R. A., and G. R. Leidy. 1984. Life stage periodicities of anadromous salmonids in the Klamath River Basin, northwestern California. US Fish and Wildlife Service, Division of Ecological Services.
- Lessard, J., B. Cavallo, P. Anders, T. Sommer, B. Schreier, D. Gille, A. Schreier, A. Finger, T.-C. Hung, and J. Hobbs. 2018. Considerations for the Use of Captive-Reared Delta Smelt for Species Recovery and Research. *San Francisco Estuary and Watershed Science* 16(3).
- Lewis, A. F. J., M. D. McGurk, and M. G. Galesloot. 2002. Alcan's Kemano River eulachon (*Thaleichthys pacificus*) monitoring program 1988-1998. Consultant's report prepared by Ecofish Research Ltd. for Alcan Primary Metal Ltd., Kitimat, BC.
- Leyse, K. 2005. Intentional Introductions and Biodiversity in Fishless Waters: The Effects of Introduced Fish on Native Aquatic Species. PhD dissertation, University of California, Davis.
- Ligon, F., A. Rice, G. Rynearson, D. Thornburgh, and W. Trush. 1999. Report of the Scientific Review Panel on California Forest Practice Rules and Salmonid Habitat. Prepared for The Resources Agency of California and the National Marine Fisheries Service. Sacramento, California. Available at http://www.krisweb.comwww.krisweb.com/biblio/cal_nmfs_ligonetal_1999_srprept.pdf.
- Lindberg, J. C., G. Tigan, L. Ellison, T. Rettinghouse, M. M. Nagel and K. M. Fisch. 2013. Aquaculture methods for a genetically managed population of endangered Delta Smelt. *North American Journal of Aquaculture* 75(2):186-196. doi: <http://dx.doi.org/10.1080/15222055.2012.751942>
- Lindley S. T., R. S. Schick, A. Agrawal, M. Goslin, T. E. Pearson, E. Mora, J. J. Anderson, B. May, S. Greene, C. Hanson, A. Low, D. McEwan, R. B. MacFarlane, C. Swanson, J. G. Williams. 2006. Historical population structure of Central Valley
- Lindley, S. T., and Mohr, M. S. 2003. Modeling the effect of striped bass (*Morone saxatilis*) on the population viability of Sacramento River Winter-Run Chinook Salmon (*Onchorhynchus tshawytscha*). *Fishery Bulletin*, 101(2), 321-331.

- Lindley, S. T., C. B. Grimes, M. S. Mohr, W. Peterson, J. Stein, J. T. Anderson, C. A. Busack, L.W. Botsford, T. K. Collier, D. L. Bottom, J. C. Garza, A. M. Grover, D. G. Hankin, R. G. Kope, P. W. Lawson, A. Low, J. Ferguson, R. B. MacFarlane, M. Palmer-Zwahlen, F. B. Schwing, J. Smith, C. Tracy, R. Webb, B. K. Wells. 2009. What caused the Sacramento River fall Chinook salmon stock collapse? NOAA, Tech. Memo., NMFS-SWFSC-447. Southwest Fisheries Science Center.
- Lindley, S. T., C. Michel, P. T. Sandstrom. 2008. Estimating Reach-Specific Smolt Survival Rates and the Factors Influencing Them from Acoustic Tagging Data. 5th Biennial CALFED Science Conference. October 22-24. Sacramento, CA.
- Lindley, S. T., R. Schick, B. P. May, J. J. Anderson, S. Greene, C. Hanson, A. Low, D. McEwan, R. B. MacFarlane, C. Swanson, and J. G. Williams. 2004. Population Structure of Threatened and Endangered Chinook Salmon ESU in California's Central Valley Basin. Public review draft. NOAA Technical Memorandum NMFS, Southwest Science Center, Santa Cruz, CA.
- Lindley, S. T. 2004. Population structure of threatened and endangered Chinook salmon ESUs in California's Central Valley basin.
- Lisle, T. E. 1989. Sediment transport and resulting deposition in spawning gravels, north coastal California. *Water resources research*, 25(6), pp.1303–1319.
- Liu, L., J. Wood, N. Nur, D. Stralberg, and M. Herzog. 2009. California Clapper Rail (*Rallus longirostris obsoletus*) Population Monitoring: 2005-2008. Prepared for California Department of Fish and Game by PRBO Conservation Science. Sept. 29, 2009.
- Liu, L., J. Wood, N. Nur, D. Stralberg, and M. Herzog. 2009. California Clapper Rail (*Rallus longirostris obsoletus*) Population Monitoring: 2005-2008. Prepared for California Department of Fish and Game by PRBO Conservation Science. Sept. 29, 2009.
- Lopez, C. B., J. E. Cloern, T. S. Schraga, A. J. Little, L. V. Lucas, J. K. Thompson, and J. R. Burau. 2006. Ecological values of shallow-water habitats: implications for the restoration of disturbed ecosystems. *Ecosystems* 9:422–440.
- Loredo, I., and D. van Vuren. 1996. Reproductive Ecology of a Population of the California Tiger Salamander. *Copeia* 1996:895–901.
- Loredo, I., D. van Vuren, and M. L. Morrison. 1996. Habitat Use and Migration Behavior of the California Tiger Salamander. *Journal of Herpetology* 30:282–285.
- Loredo-Prendeville, I., D. van Vuren, A. J. Kuenzi, and M. L. Morrison. 1994. California Ground Squirrels at Concord Naval Weapons Station: Alternatives for Control and Ecological Consequences. Pages 72–77 in W. S. Halverson and A. C. Crabb (eds.), *Proceedings of the 16th Vertebrate Pest Conference*. University of California Publications.
- Lucas, L. V., J. E. Cloern, J. K. Thompson, and N. E. Monsen. 2002. Functional variability of habitats within the Sacramento-San Joaquin delta: restoration implications. *Ecological Applications* 12(5):1528–1547.

- Lufkin, A. (ed.). 1996. California's Salmon and Steelhead, The Struggle to Restore an Imperiled Resource. Berkeley: University of California Press.
- Mac Nally, R., J. R. Thomson, W. J. Kimmerer, F. Feyrer, K. B. Newman, A. Sih, W. A. Bennett, L. Brown, E. Fleishman, S. D. Culberson, and G. Castillo. 2010. Analysis of pelagic species decline in the upper San Francisco Estuary using multivariate autoregressive modeling (MAR). *Ecological Applications* 20:1417-1430.
- Mack R. N., D. Simberloff, W. Mark Lonsdale, H. Evans, M. Clout, F. A. Bazzaz. 2000. Biotic invasions: causes, epidemiology, global consequences, and control. *Ecological Applications*, 10, 689–710.
- Mack, R. N., D. Simberloff, W. M. Lonsdale, H. Evan, M. Clout, and F. A. Bazzaz. 2000. Biotic Invasions: Causes, Epidemiology, Global Consequences, and Control. *Ecological Applications* 10:689-710.
- Macneale, K. H., P. M. Kiffney, and N. L. Scholz. 2010. Pesticides, Aquatic Food Webs, and the Conservation of Pacific Salmon. *Frontiers in Ecology and the Environment* 8:475-482
- Mahardja, B., J. L. Conrad, L. Lusher, and B. Schreier. 2016. Abundance Trends, Distribution, and Habitat Associations of the Invasive Mississippi Silverside (*Menidia audens*) in the Sacramento–San Joaquin Delta, California, USA. *San Francisco Estuary and Watershed Science* 14(1).
- Maley, J. M. and R. T. Brumfield. 2013 Mitochondrial and next-generation sequence data used to infer phylogenetic relationships and species limits in the Clapper/King rail complex. *Condor* 115:316-329.
- Marine, K. R. 1992. A background investigation and review of the effects of elevated water temperature on reproductive performance of adult chinook salmon (*Oncorhynchus tshawytscha*). Prepared for East Bay Municipal Utility District.
- Marschalek, D. A. 2006. California Least Tern Breeding Survey – 2005 Season. Final Report submitted to California Department of Fish and Game, Sacramento, CA.
- Marschalek, D. A. 2008. California Least Tern Breeding Survey - 2007 Season. Final Report submitted to California Department of Fish and Game, Sacramento, CA.
- Marschalek, D. A. 2009. California Least Tern Breeding Survey - 2008 Season. Final Report submitted to California Department of Fish and Game, Sacramento, CA.
- Marschalek, D. A. 2011. California Least Tern Breeding Survey - 2010 Season. Final Report submitted to California Department of Fish and Game, Wildlife Branch, Sacramento, CA. Nongame Wildlife Program Report, 2011-06.
- Marston, D., C. Mesick, A. Hubbard, D. Stanton, S. Fortmann-Roe, S. Tsao, and T. Heyne. 2012. Delta Flow Factors Influencing Stray Rate of Escaping Adult San Joaquin River Fall-Run Chinook Salmon (*Oncorhynchus tshawytscha*). *San Francisco Estuary and Watershed Science*. 10(4). 24p.
- Martin, B. T., A. Pike, S. N. John, N. Hamda, J. Roberts, S. T. Lindley, and E. M. Danner. 2016. Phenomenological vs. biophysical models of thermal stress in aquatic eggs. *Ecology Letters* 2016.

- Martin, B., A. Pike, S. John, N. Hamda, J. Roberts, and E. Danner. 2017. Phenomenological vs. biophysical models of thermal stress in aquatic eggs. *Ecology Letters*. 20:50-59.
- Marty, J. 2005. Effects of Cattle Grazing on Diversity in Ephemeral Wetlands. *Conservation Biology* 19:1626–1632.
- Marvin-DiPasquale, M., J. L. Agee. 2003. Microbial mercury cycling in sediments of the San Francisco Bay-Delta. *Estuaries*. 26(6):1517-1528.
- Maslin, P., M. Lennox, J. Kindopp, and W. McKinney. 1997. Intermittent streams as rearing habitat for Sacramento River chinook salmon (*Oncorhynchus tshawytscha*). Department of Biological Sciences, California State University, Chico.
- Massey, B. W. 1977. Occurrence and Nesting of the Least Tern and Other Endangered Species in Baja California, Mexico. *Western Birds* 8:67–70.
- Massey, B. W. 1981. Second Wave Nesting of the California Least Tern: Age Composition and Reproductive Success. *The Auk*. 98: 596-605.
- Matala, A. P., S. R. Narum, W. Young, and J. L. Vogel. 2012. Influences of Hatchery Supplementation, Spawner Distribution, and Habitat on Genetic Structure of Chinook Salmon in the South Fork Salmon River, Idaho. *North American Journal of Fisheries Management* 32(2):346-359.
- Matern, S. A., P. B. Moyle and L. C. Pierce. 2002. Native and alien fishes in a California estuarine marsh: twenty-one years of changing assemblages. *Transactions of the American Fisheries Society* 131(5):797-816. doi: [http://dx.doi.org/10.1577/1548-8659\(2002\)131<0797:NAAFIA>2.0.CO;2](http://dx.doi.org/10.1577/1548-8659(2002)131<0797:NAAFIA>2.0.CO;2)
- Matkin, C.O., G. Ellis, L. G. Barrett-Lennard, H. Yurk, E. L. Saulitis, D. Scheel, P. Olesiuk, G. Ylitalo. 2003. Photographic and Acoustic Monitoring of Killer Whales in Prince William Sound and Kenai Fjords (Restoration Project 030012 Final Report). Exxon Valdez Oil Spill Restoration Project / North Gulf Oceanic Society
- Maunder, M. N. and R. B. Deriso. 2011. A state–space multistage life cycle model to evaluate population impacts in the presence of density dependence: illustrated with application to delta smelt (*Hypomesus transpacificus*). *Canadian Journal of Fisheries and Aquatic Science* 68: 1285–1306 DOI:10.1139/F2011-071
- Mayfield, R. B. and Cech, J. J. 2004. Temperature Effects on Green Sturgeon Bioenergetics. *Transactions of the American Fisheries Society* 133(4):961–970.
- McAllister, D. E. 1963. A revision of the smelt family, Osmeridae. National Museum of Canada, Biological Series 71, Bulletin No. 191:1-53.
- McBain, S. and B. Trush. 2001. Final report: geomorphic evaluation of lower Clear Creek downstream of Whiskeytown Dam, California. Prepared for the Western Shasta Resource Conservation District. November.
- McCullough D. 1999. A Review and Synthesis of Effects of Alterations to the Water Temperature Regime on Freshwater Life Stages of Salmonids, with Special Reference to Chinook Salmon. Prepared for the U.S. Environmental Protection Agency, Region 10, Seattle, Washington.

- McCullough, D., S. Spalding, D. Sturdevant, and M. Hicks. 2001. Issue paper 5 summary of technical literature examining the physiological effects of temperature on salmonids: prepared as part of EPA Region 10 Temperature Water Quality Criteria Guidance Development Project. Seattle, WA, U.S. Environmental Protection Agency, Region 10.
- McElroy K., Beakes M. and J. Merz. 2018. Hide and Seek: Turbidity, Cover, and Ontogeny Influence Aggregation Behavior in Juvenile Salmon. *Ecosphere*. <https://doi.org/10.1002/ecs2.2175>.
- McEwan, D. 2001. Central Valley steelhead, In Contributions to the biology of Central Valley salmonids, R. L. Brown, editor, CDFW, Sacramento, CA, Fish Bulletin, Vol. 179, pp. 1-44.
- McEwan, D., and T. A. Jackson. 1996. Steelhead restoration and management plan for California. California Department of Fish and Game, Sacramento, CA.
- McHugh, J. L. 1939. The eulachon. Progress Report of the Pacific Biological Station, Nanaimo, B.C. and Pacific Fisheries Experimental Station, Prince Rupert, B.C. 40: 17-22.
- McIntyre, J. K., J. W. Davis, R. C. Edmunds, J. Incardona, N. L. Scholz, J. Stark. 2015. Soil bioretention protects juvenile salmon and their prey from the toxic impacts of urban stormwater runoff. *Chemosphere*, 132:213-219.
- McIntyre, J. K., J.W. Davis, J.P. Incardona, J.D. Stark, and N.L. Scholz, 2014. Zebrafish and clean water technology: assessing the protective effects of bioinfiltration as a treatment for toxic urban runoff. *Science of the Total Environment*, 500-501:173-180.
- McLean J. E., P. Bentzen, T. P. Quinn. Nonrandom. 2005. Size- and timing-biased breeding in a hatchery population of steelhead trout. *Conservation Biology*. 2005;19:446–454.
- McMillan, F.O., 1928. Electric Fish Screen. <https://www.st.nmfs.noaa.gov/spo/FishBull/44-1/mcmillan.pdf>
- Merz, J. E., S. Hamilton, P. S. Bergman and B. Cavallo. 2011. Spatial perspective for delta smelt: a summary of contemporary survey data. *California Fish and Game* 97(4):164-189. http://www.genidaqs.net/reports/2011/CA_Fish-Game_97_164-189.pdf
- Merz, J. E., P. S. Bergman, J. L. Simonis, D. Delaney, J. Pierson, P. Anders. Long-Term Seasonal Trends in the Prey Community of Delta Smelt (*Hypomesus transpacificus*) Within the Sacramento-San Joaquin Delta, California. *Estuaries and Coasts* (2016) 39:1526–1536. <https://link.springer.com/content/pdf/10.1007%2Fs12237-016-0097-x.pdf>
- Ford, M. J. 2013. Status review update of Southern Resident killer whales. National Marine Fisheries Service. July 31.
- Michel C. J, A. J. Ammann, S. T. Lindley, P. T. Sandstrom, E. D. Chapman, M. J. Thomas, G. P. Singer, A. P. Klimley, R. B. MacFarlane. 2015. Chinook salmon outmigration survival in wet and dry years in California's Sacramento River. *Can J Fish Aquat Sci* 72(11):1749–59. <https://doi.org/10.1139/cjfas-2014-0528>
- Michel C. J., A. J. Amman, E. D. Chapman, P. T. Sandstrom, H. E. Fish, M. J. Thomas, G. S. Singer, S. T. Lindley, A. P. Kimley, and R. B. MacFarlane. 2012. The effects of environmental factors on the migratory movement patterns of Sacramento River yearling late-fall run Chinook salmon

- (*Oncorhynchus tshawytscha*). *Environmental Biology of Fishes*. 96. (2-3): 257-271.
<https://doi.org/10.1007/s10641-012-9990-8>.
- Miller, L. W. 2000. The tow-net survey abundance index for delta smelt revisited. Interagency Ecological Program for the San Francisco Estuary (Newsletter)13(1):37-44.
<http://www.water.ca.gov/iep/newsletters/2000/2000winter.pdf>
- Miller, W. J., B. F. J. Manly, D. D. Murphy, D. Fullerton and R. R. Ramey. 2012. An investigation of factors affecting the decline of delta smelt (*Hypomesus transpacificus*) in the Sacramento-San Joaquin Estuary. *Reviews in Fisheries Science* (20)1:1-19. doi:
<http://dx.doi.org/10.1080/10641262.2011.634930>
- Miller, W. J., B. F. J. Manly, D. D. Murphy, D. Fullerton and R. R. Ramey. 2012. An investigation of factors affecting the decline of delta smelt (*Hypomesus transpacificus*) in the Sacramento-San Joaquin Estuary. *Reviews in Fisheries Science* (20)1:1-19. doi:
<http://dx.doi.org/10.1080/10641262.2011.634930>
- Missildine, B., R. Peters, R. Piaskowski, and R. Tabor. 2001. Habitat Complexity, Salmonid Use, and Predation of Salmonids at the Bioengineered Revetment at the Maplewood Golf Course on the Cedar River, Washington. Miscellaneous report. Lacey, WA: U.S. Fish and Wildlife Service, Western Washington Office.
- Mitchell, L., Newman, K., and Baxter, R. 2017. A covered cod end and tow-path evaluation of midwater trawl gear efficiency for catching delta smelt (*Hypomesus transpacificus*).
- Mitro, M. G., and A. V. Zale. 2002. Seasonal survival, movement, and habitat use of age-0 rainbow trout in the Henrys Fork of the Snake River, Idaho. *Transactions of the American Fisheries Society* 131:271-286.
- Monaco, M. E., R. L. Emmett, S. A. Hinton, and D. M. Nelson. 1990. Distribution and abundance of fishes and invertebrates in West Coast estuaries. Volume I: Data summaries. ELMR Rep. No. 4, Strategic Assessment Branch, NOS/NOAA. U.S. Dept. of Commerce, National Oceanic and Atmospheric Administration, National Ocean Service.
- Mora, E. A. 2016. A Confluence of Sturgeon Migration: Adult Abundance and Juvenile Survival. PhD Dissertation, Univ. Calif., Davis.
- Mora, E. A., Lindley S.T., D. L. Erickson, and A. P. Klimley. 2009. Do impassable dams and flow regulation constrain the distribution of green sturgeon in the Sacramento River, California? *Journal of Ichthyology* 25 Supplement 2, 39-47.
- Mora, E. A., R. D. Battleson, S. T. Lindley, M. J. Thomas, R. Bellmer, L. J. Zarri, A. P. Klimley. 2018. Estimating the annual spawning run size and population size of the southern distinct population segment of Green Sturgeon. *Transactions of the American Fisheries Society* 147:195-203
- Mora, E., S. Lindley, E. Daniel, A. P. Klimley. 2015. Estimating the Riverine Abundance of Green Sturgeon Using a Dual-Frequency Identification Sonar. *North American Journal of Fisheries Management*. 35. 557-566. 10.1080/02755947.2015.1017119.

- Morgan-King, T., D. H. Schoellhamer. 2013. Suspended-Sediment Flux and Retention in a Backwater Tidal Slough Complex near the Landward Boundary of an Estuary. *Estuaries and Coasts*. 36. 10.1007/s12237-012-9574-z.
- Morinaka, J. 2013. Acute Mortality and Injury of Delta Smelt Associated With Collection, Handling, Transport, and Release at the State Water Project Fish Salvage Facility. Technical Report 89. November. Interagency Ecological Program, Sacramento.
- Mount, J. F. 1995. *California Rivers and Streams: the conflict between fluvial process and land use*. University of California Press, Berkeley, CA.
- Moyle P. B., J. D. Kiernan, P. K. Crain, and R. M. Quinones. 2013. Climate Change Vulnerability of Native and Alien Freshwater Fishes of California: A Systematic Assessment Approach. *PLoS ONE* 8(5): e63883. doi:10.1371/journal.pone.0063883
- Moyle, P. B. and J. J. Cech. 2004. *Fishes: An Introduction to Ichthyology*, 5th Edition
- Moyle, P. B., J. R. Lund, W. A. Bennett, and W. E. Fleenor. 2010. Habitat Variability and Complexity in the Upper San Francisco Estuary. *San Francisco Estuary and Watershed Science* [online serial] 8(3), Available at: <http://www.escholarship.org/uc/item/0kf0d32x>
- Moyle, P. B. 2002. *Inland Fishes of California*. Berkeley, CA: University of California Press.
- Moyle, P. B., J. A. Israel, and S. E. Purdy. 2008. *Salmon, Steelhead, and Trout in California. Status of an Emblematic Fauna. A report commissioned by California Trout*. Center for Watershed Sciences, University of California, Davis, Davis, CA.
- Moyle, P. B., R. A. Daniels, B. Herbold, and D. M. Baltz. 1986. Patterns in distribution and abundance of a noncoevolved assemblage of estuarine fishes in California. *Fishery Bulletin* 84(1):105-117. <http://fishbull.noaa.gov/841/moyle.pdf>
- Moyle, P. B., B. Herbold, D. E. Stevens, and L.W. Miller. 1992. Life history and status of delta smelt in the Sacramento-San Joaquin Estuary, California. *Transactions of the American Fisheries Society* 121:67-77.
- Moyle, P. B., L. R. Brown and J. R. Durand. 2016. Delta smelt: life history and decline of a onceabundant species in the San Francisco Estuary. *San Francisco Estuary and Watershed Science* 14(2). <http://escholarship.org/uc/item/09k9f76s>
- Mueller-Solger, A. B., A. D. Jassby, and D. C. Müller-Navarra. 2002. Nutritional quality of food resources for zooplankton (*Daphnia*) in a tidal freshwater system (Sacramento-San Joaquin River Delta). *Limnology and Oceanography* 47(5):1468-1476.
- Murphy, D. D. and S. A. Hamilton. 2013. Eastern migration or marshward dispersal: exercising survey data to elicit an understanding of seasonal movement of delta smelt. *San Francisco Estuary and Watershed Science* 11(3). <https://escholarship.org/uc/item/4jf862qz>
- Mussen T. D., D. Cocherell, J. B. Poletto, J. S. Reardon, Z. Hockett, A. Ercan, H. Bandeh, M. L. Kavvas, J. J. Cech, N. A. Fangue. 2014. Unscreened Water-Diversion Pipes Pose an Entrainment Risk to the Threatened Green Sturgeon, *Acipenser medirostris*. *PLoS ONE* 9: e86321. [PMC free article] [PubMed].

- Myers, J. M., R. G. Kope, G. J. Bryant, D. Teel, L. J. Liehr, T. C. Wainwright, W. S. Grant, F. W. Waknitz, K. Neely, S. T. Lindley, and R. S. Waples. 1998. Status Review of Chinook Salmon from Washington, Idaho, Oregon, and California. U.S. Department Commerce, NOAA Technical Memorandum NMFS-NWFSC-35.
- Myrick, C. A. and J. J. Cech, Jr. 2001. Temperature Effects on Chinook Salmon and Steelhead: A Review Focusing on California's Central Valley Populations. Bay-Delta Modeling Forum Technical Publication 01-1.
- Myrick, C. A., and J. J. Cech Jr. 2005. Effects of temperature on the growth, food consumption, and thermal tolerance of age-0 Nimbus-strain steelhead. North American Journal of Aquaculture. 67.4: 324-330.
- Nakamoto, R. J., T. T. Kisanuki, and G. H. Goldsmith. 1995. Age and Growth of Klamath River Green Sturgeon (*Acipenser medirostris*). U.S. Fish and Wildlife Service. Project #93-FP-13. 20 pages.
- National Marine Fisheries Service (NMFS). 1993. Biological Opinion for the Los Vaqueros Reservoir Project. Number 5004. Southwest Region, Long Beach, California. Issued March 18, 1993.
- National Marine Fisheries Service (NMFS). 1996. Status Review of West Coast Steelhead From Washington, Idaho, Oregon, and California. Technical Memorandum - NOAA Fisheries-NWFSC-27.
- National Marine Fisheries Service (NMFS). 1997. Proposed Recovery Plan for the Sacramento River Winter-Run Chinook Salmon. Long Beach, CA: National Marine Fisheries Service, Southwest Region.
- National Marine Fisheries Service (NMFS). 2000. Endangered Species Act - Reinitiated Section 7 Consultation – Biological Opinion and Incidental Take Statement. Effects of Pacific Coast Salmon Plan on California Central Valley spring-run Chinook, and California coastal Chinook salmon. NMFS, Protected Resources Division. April 28, 2000.
- National Marine Fisheries Service (NMFS). 2002. Biological Opinion on Interim Operations of the Central Valley Project and State Water Project Between April 1, 2002 and March 31, 2004, on Federally Listed Threatened Central Valley Spring-Run Chinook Salmon and Threatened Central Valley Steelhead in Accordance With Section 7 of the Endangered Species Act of 1973, As Amended. Long Beach: National Marine Fisheries Service, Southwest Region.
- National Marine Fisheries Service (NMFS). 2004. Supplemental Biological Opinion to the September 20, 2002 Spring-run/Steelhead Operating Criteria and Plan (OCAP) Biological Opinion. National Marine Fisheries Service. Long Beach, California.
- National Marine Fisheries Service (NMFS). 2005. Green Sturgeon (*Acipenser medirostris*) Status Review Update, February 2005. Biological review team, Santa Cruz Laboratory, Southwest Fisheries Science Center.
- National Marine Fisheries Service (NMFS). 2006. Designation of Critical Habitat for Southern Resident Killer Whales. National Marine Fisheries Service, Northwest Region, Seattle, WA

- National Marine Fisheries Service (NMFS). 2006. Designation of Critical Habitat for Southern Resident Killer Whales. National Marine Fisheries Service, Northwest Region, Seattle, WA.
- National Marine Fisheries Service (NMFS). 2007. Biological Opinion for the Contra Costa Water District's Alternative Intake Project. NOAA (National Oceanic and Atmospheric Administration), National Marine Fisheries Service. Issued July 13, 2007.
- National Marine Fisheries Service (NMFS). 2008a. Biological opinion for water supply, flood control operations, and channel maintenance conducted by the U.S. Army Corps of Engineers, the Sonoma County Water Agency, and the Mendocino County Russian River Flood Control and Water Conservation Improvement District in the Russian River watershed. NMFS-Southwest Region, Long Beach, CA. 367 pp.
- National Marine Fisheries Service (NMFS). 2008b. National Marine Fisheries Service Endangered Species Act Section 7 Consultation. Biological Opinion. Environmental Protection Agency Registration of Pesticides Containing Chlorpyrifos, Diazinon, and Malathion. November 18. <https://www.fisheries.noaa.gov/webdam/download/63806553>
- National Marine Fisheries Service (NMFS). 2008c. Recovery plan for southern resident killer whales (*Orcinus orca*). National Marine Fisheries Service, Northwest Region, Seattle, WA.
- National Marine Fisheries Service (NMFS). 2009. Biological opinion and conference opinion on the long-term operations of the Central Valley Project and State Water Project. National Marine Fisheries Service Southwest Region. June 4.
- National Marine Fisheries Service (NMFS). 2009. Biological Opinion on the Long-Term Central Valley Project and State Water Project Operations Criteria and Plan. NOAA (National Oceanic and Atmospheric Administration), National Marine Fisheries Service, Southwest Fisheries Service Center, Long Beach, California.
- National Marine Fisheries Service (NMFS). 2010. Endangered Species Act Section 7 Consultation Biological Opinion. Environmental Protection Agency Registration of Pesticides Containing Azinphos methyl, Bensulide, Dimethoate, Disulfoton, Ethoprop, Fenamiphos, Naled, Methamidophos, Methidathion, Methyl parathion, Phorate and Phosmet. August 31. Available at: <https://www.fisheries.noaa.gov/webdam/download/63806550>
- National Marine Fisheries Service (NMFS). 2010. Letter of concurrence to U.S. Bureau of Reclamation in response to Reclamation's request for concurrence that the Los Vaqueros Reservoir Expansion (LVE) Project is not likely to affect listed species or critical habitat. October 15, 2010.
- National Marine Fisheries Service (NMFS). 2010. Interim endangered and threatened species recovery planning guidance. Version 1.3. National Marine Fisheries Service, Silver Spring, MD.
- National Marine Fisheries Service (NMFS). 2011. REVIEW DRAFT – Recovery Plan for the North Central California Coast Domain, Northern California Steelhead, California Coastal Chinook Salmon, Central California Coast Steelhead. Center for Independent Experts Review Draft. Version – September 29, 2011.
- National Marine Fisheries Service (NMFS). 2011b. Endangered Species Act Section 7 Consultation Biological Opinion. Environmental Protection Agency Registration of Pesticides, 2,4-D,

- Triclopyr BEE, Diuron, Linuron, Captan, and Chlorothalonil. June 30. Available at: <https://www.fisheries.noaa.gov/webdam/download/63806559>
- National Marine Fisheries Service (NMFS). 2011b. Endangered Species Act Section 7 Consultation Draft Conference and Biological Opinion for United States Environmental Protection Agency Registration of 2, 4-D, Triclopyr Bee, Diuron, Linuron, Captan, and Chlorothalonil.
- National Marine Fisheries Service (NMFS). 2012. Public Draft Recovery Plan for Southern Oregon/Northern California Coast Coho Salmon (*Oncorhynchus kisutch*). National Marine Fisheries Service. Arcata, CA.
- National Marine Fisheries Service (NMFS). 2012. Endangered Species Act Section 7 Consultation Final Biological Opinion. Environmental Protection Agency Registration of Pesticides Orysalin, Pendimethalin, Trifluralin. May 31. Available at: <https://www.fisheries.noaa.gov/webdam/download/63806569>
- National Marine Fisheries Service (NMFS). 2013. Biological Opinion on the Suisun Marsh Long-Term Habitat Management, Preservation, and Restoration Plan. July 3. NOAA (National Oceanic and Atmospheric Administration), National Marine Fisheries Service, Southwest Fisheries Service Center, Long Beach, California.
- National Marine Fisheries Service (NMFS). 2013. Endangered Species Act Section 7 Consultation Draft Conference and Biological Opinion for United States Environmental Protection Agency Registrations of Pesticides Containing iflurbenzuron, Fenbutatin Oxide, and Propargite.
- National Marine Fisheries Service (NMFS). 2013. Killer Whale (*Orcinus orca*). Available at: <http://www.nmfs.noaa.gov/pr/species/mammals/cetaceans/killerwhale.htm>
- National Marine Fisheries Service (NMFS). 2014. Endangered Species Action Section 7(a)(2) Concurrence Letter for the Lower Yolo Restoration Project. NMFS No. WCR-2014-278. May 20. Sacramento, CA: United States Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service, West Coast Region.
- National Marine Fisheries Service (NMFS). 2014. Possibility of natural producing spring-run Chinook salmon in the Stanislaus and Tuolumne Rivers. Authored by Sierra Franks, November 2012, updated June 2014.
- National Marine Fisheries Service (NMFS). 2014. Recovery Plan for the Evolutionarily Significant Units of Sacramento River Winter-run Chinook Salmon and Central Valley Spring-run Chinook Salmon and the Distinct Population Segment of California Central Valley Steelhead. California Central Valley Area Office. July 2014.
- National Marine Fisheries Service (NMFS). 2014b. Southern Resident Killer Whales: 10 Years of Research and Conservation. National Marine Fisheries Service Northwest Fisheries Science Center and West Coast Region. June 2014
- National Marine Fisheries Service (NMFS). 2015. Southern Distinct Population Segment of the North American Green Sturgeon. 5-Year Review: Summary and Evaluation. West Coast Region. Long Beach, CA.

- National Marine Fisheries Service (NMFS). 2015a. Endangered Species Act Section 7(a)(2) Concurrence Letter, and Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat Response for Testing and Modifications of the Rock Slough Fish Screen. February 20. National Marine Fisheries Service, West Coast Region, Sacramento, CA.
- National Marine Fisheries Service (NMFS). 2015b. Endangered Species Act Section 7(a)(2) Concurrence Letter, and Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat Response for the 2015 Rock Slough Mechanical Harvesting Project. September 30. National Marine Fisheries Service, West Coast Region, Sacramento, CA.
- National Marine Fisheries Service (NMFS). 2016a. Status Review Update of Eulachon (*Thaleichthys pacificus*) Listed under the Endangered Species Act: Southern Distinct Population Segment. March 25.
- National Marine Fisheries Service (NMFS). 2016b. 5-Year Review; Summary and Evaluation of Central Valley Spring-run Chinook Salmon Evolutionarily Significant Unit. April.
- National Marine Fisheries Service (NMFS). 2016c. 5-Year Status Review, Central California Coast Steelhead. April 2016.
https://www.westcoast.fisheries.noaa.gov/publications/status_reviews/salmon_steelhead/steelhead/status_reviews.html
- National Marine Fisheries Service (NMFS). 2016d. 2016 5-Year Review: Summary & Evaluation of Eulachon. Portland, Oregon. Available at:
https://www.westcoast.fisheries.noaa.gov/publications/status_reviews/other_species/eulachon/eulachon_2016_5-year_review.pdf
- National Marine Fisheries Service (NMFS). 2017.
https://www.westcoast.fisheries.noaa.gov/maps_data/california_species_list_tools.html
- National Marine Fisheries Service (NMFS). 2017. Biological Opinion on NOAA's National Marine Fisheries Service's Implementation of the Mitchell Act Final Environmental Impact Statement Preferred Alternative and Administration of Mitchell Act Hatchery Funding. NMFS Consultation Number: Nwr-2014-697. January 15, 2017
- National Marine Fisheries Service (NMFS). 2017. Endangered Species Act (ESA) Section 7(a)(2) Biological Opinion and Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat (EFH) Response for Rock Slough Fish Screen Facilities Improvement Project NMFS Consultation Number: ARN 151422WCR2014-SA00018 / PCTS# WCR-2017-6161. Issued June 29, 2017.
- National Marine Fisheries Service (NMFS). 2017. Endangered Species Act Section 7(a)(2) Biological Opinion, Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat Response, and Fish and Wildlife Coordination Act Recommendations for the California WaterFix Project in Central Valley, California. NMFS Consultation Number: WCR-2016-5506. June 16. Portland, OR: United States Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service, West Coast Region.

- National Marine Fisheries Service (NMFS). 2017. Eulachon. Endangered Species Act Recovery Plan for the Southern Distinct Population Segment of Eulachon (*Thaleichthys pacificus*). National Marine Fisheries Service, West Coast Region, Protected Resources Division, Portland, OR.
- National Marine Fisheries Service (NMFS). 2018. Recovery Plan for the Southern Distinct Population Segment of North American Green Sturgeon (*Acipenser medirostris*). National Marine Fisheries Service, Sacramento, CA.
- National Oceanic and Atmospheric Administration (NOAA). 2009. Designation of Critical Habitat for the threatened Southern Distinct Population Segment of North American Green Sturgeon. Final Biological Report. Prepared by National Marine Fisheries Service. Southwest Region Protected Resources Division. Long Beach, California. Available at: https://www.westcoast.fisheries.noaa.gov/publications/protected_species/other/green_sturgeon/g_s_critical_habitat/gschd_finalbiologicalrpt.pdf.
- National Oceanic and Atmospheric Administration (NOAA). 2016. Technical Memorandum U.S. Pacific Marine Mammal Stock Assessments: 2015.
- National Oceanic and Atmospheric Administration (NOAA) Southwest Region and Washington Department of Fish and Wildlife (WDFW). 2018. Southern Resident Killer Whale Priority Chinook Stocks Report. June 22. Available: https://www.westcoast.fisheries.noaa.gov/publications/protected_species/marine_mammals/killer_whales/recovery/srkw_priority_chinook_stocks_conceptual_model_report___list_22june2018.pdf Accessed: November 21, 2018.
- National Research Council (NRC). 2004. Endangered and Threatened Fishes in the Klamath River Basin: Causes of Decline and Strategies for Recovery Committee on Endangered and Threatened Fishes in the Klamath River Basin; Board on Environmental Studies and Toxicology. Washington, D.C.: The National Academies Press.
- Newman, K. B. 2008. An evaluation of four Sacramento–San Joaquin River Delta juvenile salmon survival studies. U.S. Fish and Wildlife Service, Stockton, CA. Available at http://www.science.calwater.ca.gov/pdf/psp/PSP_2004_final/PSP_CalFed_FWS_salmon_studies_final_033108.pdf. Nielsen J.L., Lisle T.E., Ozaki V. 1994. Thermally stratified pools and their use by steelhead in northern California streams. Transactions of the American Fisheries Society 123:613–26.
- Nobriga, M. L. 2002. Larval delta smelt diet composition and feeding incidence: environmental and ontogenetic influences. California Department of Fish and Wildlife 88:149-164.
- Nobriga, M. L. 2002. Larval delta smelt diet composition and feeding incidence: environmental and ontogenetic influences. California Fish and Game 88:149-164.
- Nobriga, M. L. and B. Herbold. 2009. The Little Fish in California's Water Supply: A Literature Review and Life-History Conceptual Model for Delta Smelt (*Hypomesus transpacificus*) for the Delta Regional Ecosystem Restoration and Implementation Plan (DRERIP). Delta Regional Ecosystem Restoration Implementation Plan (DRERIP). Sacramento, CA.
- Nobriga, M. L. and F. Feyrer. 2007. Shallow-Water Piscivore-Prey Dynamics in California's Sacramento–San Joaquin Delta; San Francisco Estuary and Watershed Science; p. 9

- Nobriga, M. L., F. Feyrer, R. D. Baxter and M. Chotkowski. 2005. Fish community ecology in an altered river delta: spatial patterns in species composition, life history strategies and biomass. *Estuaries*. 28:776-785.
- Nobriga, M. L., Z. Matica, and Z. P. Hymanson. 2004. Evaluating Entrainment Vulnerability to Agricultural Irrigation Diversions: A Comparison among Open-Water Fishes. Pages 281-295 in F. Feyrer, L.R. Brown, R.L. Brown, and J.J. Orsi, editors. *Early Life History of Fishes in the San Francisco Estuary and Watershed*. American Fisheries Society, Symposium 39, Bethesda, Maryland.
- Nobriga, M.L., T.R. Sommer, F. Feyrer and K. Fleming. 2008. Long-term trends in summertime habitat suitability for delta smelt. *San Francisco Estuary and Watershed Science* 6(1).
<http://escholarship.org/uc/item/5xd3q8tx>
- Northern California Water Association (NCWA). 2014. "The Bay-Delta Conservation Plan (BDCP) and its Impacts on Regional Sustainability in the North State. North State Water Alliance. Letter to Secretary John Laird, California Natural Resources Agency. Available at:
http://www.norcalwater.org/wp-content/uploads/NSWA_BDCP_Submittal_7_2014.pdf.
- Northern California Water Association (NCWA). 2018. Food Production Program Continues to Improve Delta Smelt Conditions. Available: https://mavensnotebook.com/wp-content/uploads/2018/10/FoodWeb_PressRelease_FactSheet.pdf
- Northwest Fisheries Science Center (NWFSC). 2008. Data report and summary analyses of the California and Oregon pink shrimp fisheries, December 2008. NWFSC, Fishery Resource Analysis and Monitoring Division, West Coast Groundfish Observer Program, Seattle, WA. Online at
http://www.nwfsc.noaa.gov/research/divisions/fram/observer/datareport/docs/pink_shrimp_report_final.pdf
- Olesiuk, P. F., M. A. Bigg, and G. M. Ellis. 1990. Life history and population dynamics of resident killer whales (*Orcinus orca*) in the coastal waters of British Columbia and Washington State. In *Individual recognition of cetaceans: Use of photo-identification and other techniques to estimate population parameters*, edited by Hammond, P. S., S. A. Mizroch, and G. P. Donovan
- O'Geen, A. T., W. A. Hobson, R. A. Dahlgren, and D. B. Kelley. 2008. Evaluation of Soil Properties and Hydric Soil Indicators for Vernal Pool Catenas in California. *Soil Science Society of America Journal* 72:727-740.
- O'Geen, A. T., W. A. Hobson, R. A. Dahlgren, and D. B. Kelley. 2008. Evaluation of Soil Properties and Hydric Soil Indicators for Vernal Pool Catenas in California. *Soil Science Society of America Journal* 72:727-740.
- Okamura, B., H. Hartikainen, H. Schmidt-Posthaus, T. Wahli. 2011. Life cycle complexity, environmental change and the emerging status of salmonid proliferative kidney disease. *Freshw Biol* 56(4):735-753.
- Olden J. D., R. J. Naiman. 2010. Incorporating thermal regimes into environmental assessments: modifying dam operations to restore freshwater ecosystem integrity. *Freshw Biol* 55:86-107.

- Olesiuk, P. F., M. A. Bigg, and G. M. Ellis. 1990. Life history and population dynamics of resident killer whales (*Orcinus orca*) in the coastal waters of British Columbia and Washington State. In *Individual recognition of cetaceans: Use of photo-identification and other techniques to estimate population parameters*, edited by Hammond, P. S., S. A. Mizroch, and G. P. Donovan.
- Olofson Environmental, Inc. 2011. California Clapper Rail Surveys for the San Francisco Estuary Invasive Spartina Project 2011. Prepared for the State Coastal Conservancy San Francisco Estuary Invasive Spartina Project. December 2011.
- Olsen, N., J. A. Boutillier, and L. Convey. 2000. Estimated bycatch in the British Columbia shrimp trawl fishery. Canadian Stock Assessment Secretariat Research Document - 2000/168. Online at http://www.dfompo.gc.ca/csas/Csas/DocREC/2000/PDF/2000_168e.pdf
- Orca Network. 2019. Southern Resident Orca Community Demographics, Composition of Pods, Births and Deaths since 1998. Updated January 11. Available at: https://www.orcanetwork.org/Main/index.php?categories_file=Births%20and%20Deaths
- Orlando J. L., K. L. Smalling, T. J. Reilly, N. S. Fishman, A. Boehlke, M. T. Meyer. 2013. Occurrence of fungicides and other pesticides in surface water, groundwater, and sediment from three targeted-use areas in the United States, 2009. U.S. Geological Survey Data Series. 797:73. doi: <http://dx.doi.org/10.3133/ds2013797>
- Orlando J. L., M. McWayne, C. Sanders, M. L. Hladik. 2014. Dissolved pesticide concentrations entering the Sacramento–San Joaquin Delta from the Sacramento and San Joaquin rivers, California, 2012–13. U.S. Geological Survey Data Series 28. doi: <http://dx.doi.org/10.3133/ds876>
- Orsi, J. J. and W. L. Mecum. 1996. Food limitation as the probable cause of a long-term decline in the abundance of *Neomysis mercedis* the opossum shrimp in the Sacramento-San Joaquin Estuary. Pp 375–401 in *San Francisco Bay: The Ecosystem*, edited by J. T. Hollibaugh. Pacific Division, American Association for the Advancement of Science, San Francisco, CA
- Osborne, R. 1999. A historical ecology of Salish Sea resident killer whales (*Orcinus orca*): With implications for management. PhD dissertation, University of Victoria, Victoria, BC, Canada.
- Pacific Fishery Management Council. 2014. Pacific Coast Salmon Fishery Management Plan. September.
- Pacific Legal Foundation. 2012. Petition of the Center for Environmental Science, Accuracy & Reliability, Empresas del Bosque, and Coburn Ranch to delist the Southern Resident Killer Whale Distinct Population Segment under the Endangered Species Act.
- Padgett-Flohr, G. E., and L. Isakson. 2003. A random sampling of salt marsh harvest mice in a muted tidal marsh. *Journal of Wildlife Management*. 67(3): 646–653.
- Palmer-Zwahlen, M. L., and Kormos, B. 2015. Recovery of coded-wire tags from Chinook Salmon in California's Central Valley Escapement, Inland Harvest, and Ocean Harvest in 2012. In California Department of Fish and Game, Fisheries Branch Administrative Report 2015-4.
- Parsons, K. M., K. C. Balcomb, J. K. B. Ford, and J. W. Durban. 2009. The social dynamics of southern resident killer whales and conservation implications for this endangered population. *Animal Behaviour* 77(4):963–971.

- Pasternack, G. 2010. Gravel/Cobble Augmentation Implementation Plan (GAIP) for the Englebright Dam Reach of the Lower Yuba River, CA. Prepared for U.S. Army Corps of Engineers, Sacramento District. Sacramento, CA. Available at: http://pasternack.ucdavis.edu/files/3413/7581/8399/USACE_GAIP_FINAL_20100930.pdf.
- Patton, R. T. 2002. California Least Tern Breeding Survey – 2000 Season. Final Report submitted to California Department of Fish and Game, Species Conservation and Recovery Program Report, Sacramento, CA.
- Perrin, W.F., S. B. Reilly. 1984. Reproductive parameters of dolphin and small whales of the family Delphinidae. Report of the International Whaling Commission, Special Issue 6: 97-
- Perry, R. W., J. R. Skalski, P. L. Brandes, P. T. Sandstrom, A. P. Klimley, A. Ammann, and B. MacFarlane. 2010. Estimating survival and migration route probabilities of juvenile Chinook salmon in the Sacramento-San Joaquin River Delta. *North American Journal of Fisheries Management* 30(1):142-156.
- Perry, R. W., J. G. Romine, S. J. Brewer, P. E. LaCivita, W. N. Brostoff, and E. D. Chapman. 2012. Survival and migration route probabilities of juvenile Chinook salmon in the Sacramento-San Joaquin River Delta during the winter of 2009–10. U.S. Geological Survey Open-File Report 2012-1200. U.S. Geological Survey, Reston, VA.
- Perry, R. W., J. G. Romine, N. S. Adams, A. R. Blake, J. R. Burau, S. V. Johnston, and T. L. Liedtke. 2014. Using a non-physical behavioural barrier to alter migration routing of juvenile Chinook salmon in the Sacramento–San Joaquin River Delta. *River Research and Applications* 30(2):192-203.
- Perry, R. W., P. L. Brandes, J. R. Burau, P. T. Sandstrom, and J. R. Skalski. 2015. Effect of tides, river flow, and gate operations on entrainment of juvenile salmon into the interior Sacramento–San Joaquin River Delta. *Transactions of the American Fisheries Society* 144(3):445–455.
- Perry, R. W., A. C. Pope, J. G. Romine, P. L. Brandes, J. R. Burau, A. R. Blake, A. J. Ammann, C. J. Michel. 2018. Flow-mediated effects on travel time, routing, and survival of juvenile Chinook salmon in a spatially complex, tidally forced river delta. *Canadian Journal of Fisheries and Aquatic Sciences*, 2018, 75(11): 1886-1901.
- Petranka, J. W. 1998. *Salamanders of the United States and Canada*. Washington, DC: Smithsonian Institution Press.
- Phillis, C. C., A. M. Sturrock, R. C. Johnson, P.K. Weber. 2018. Endangered winter-run Chinook salmon rely on diverse rearing habitats in a highly altered landscape. *ScienceDirect*. January. <https://doi.org/10.1016/j.biocon.2017.10.023>. Volume 217:358-362.
- Pittman S., and G. Matthews. 2007. Clear Creek Geomorphic Monitoring Project, Graham Mathews and Associates. Shasta County California. WY 2006 Annual Report. 140 p.
- Polansky, L., K. B. Newman and M. L. Nobriga and L. Mitchell. 2018. Spatiotemporal models of an estuarine fish species to identify patterns and factors impacting their distribution and abundance. *Estuaries and Coasts*.
- Poletto, J. B. C. E. Verhille, D. E. Cocherell, B. DeCourten, S. Baird, J. J. Cech, N. A. Fangue. 2014. Larval green and white sturgeon swimming performance in relation to water-diversion flows,

- Conservation Physiology, Volume 2, Issue 1, 1 January 2014, cou031, <https://doi.org/10.1093/conphys/cou031>
- Poletto, J. B., B. Martin, E. Danner, S. E. Baird, D. E. Cocherell, N. Hamda, J. J. Jr. Cech, N. A. Fangue. 2018. Assessment of multiple stressors on the growth of larval Green Sturgeon *Acipenser medirostris*: implications for recruitment of early life-history stages. Fish Biology. Doi:10.1111/jfb.13805
- Poytress, W. R. and F. D. Carrillo. 2010. Brood-year 2007 Winter Chinook Juvenile Production Indices with Comparisons to Juvenile Production Estimates Derived from Adult Escapement. Report of U.S. Fish and Wildlife Service to California Department of Fish and Game and U.S. Bureau of Reclamation.
- Poytress, W. R. and F. D. Carrillo. 2011. Brood-year 2008 and 2009 Winter Chinook Juvenile Production Indices with Comparisons to Juvenile Production Estimates Derived from Adult Escapement. Report of U.S. Fish and Wildlife Service to California Department of Fish and Game and U.S. Bureau of Reclamation.
- Poytress, W. R. and F. D. Carrillo. 2012. Brood-year 2010 Winter Chinook Juvenile Production Indices with Comparisons to Juvenile Production Estimates Derived from Adult Escapement. Report of U.S. Fish and Wildlife Service to California Department of Fish and Game and U.S. Bureau of Reclamation.
- Poytress, W. R., J. J. Gruber, and J. Van Eenennaam. 2011. 2010 Upper Sacramento River Green Sturgeon Spawning Habitat and Larval Migration Surveys. Final Annual Report. February. Annual Report of U.S. Fish and Wildlife Service to U.S. Bureau of Reclamation, Red Bluff Fish Passage Program, Red Bluff, CA.
- Poytress, W. R., J. J. Gruber, and J. Van Eenennaam. 2012. 2011 Upper Sacramento River Green Sturgeon Spawning Habitat and Larval Migration Surveys. Final Annual Report. March. Annual Report of U.S. Fish and Wildlife Service to U.S. Bureau of Reclamation, Red Bluff Fish Passage Program, Red Bluff, CA.
- Poytress, W. R., J. J. Gruber, F. D. Carrillo and S. D. Voss. 2014. Compendium Report of Red Bluff Diversion Dam Rotary Trap Juvenile Anadromous Fish Production Indices for Years 2002-2012. Report of U.S. Fish and Wildlife Service to California Department of Fish and Wildlife and US Bureau of Reclamation.
- Poytress, W. R., J. J. Gruber, J. P. Van Eenennaam and M. Gard. 2015. Spatial and Temporal Distribution of Spawning Events and Habitat Characteristics of Sacramento River Green Sturgeon, Transactions of the American Fisheries Society, 144:6, 1129-1142, DOI: 10.1080/00028487.2015.1069213
- PRBO Conservation Science. 2009a. 2008 Annual Report: California Clapper Rail (*Rallus longirostris obsoletus*). TE-807078. PRBO Conservation Science, Petaluma, California.
- Prince Rupert Forest Region. 1998. Science to Support Sustainability. Forest Science Program Annual Report 1998/1999. Available at: <https://www.for.gov.bc.ca/hfd/pubs/docs/mr/Annual/AR98-99.pdf>.

- Pyke, C. R., and J. Marty. 2005. Cattle Grazing Mediates Climate Change Impacts on Ephemeral Wetlands. *Conservation Biology* 19:1619–1625.
- Quinn T. P., B. A. Terhart, C. Groot. 1989. Migratory orientation and vertical movements of homing adult sockeye salmon, *Oncorhynchus nerka*, in coastal waters. *Animal Behaviour*. 37: 587–599.
- Rains, M. C., G. E. Fogg, T. Harter, R. A. Dahlgren, and R. J. Williamson. 2006. The Role of Perched Aquifers in Hydrological Connectivity and Biogeochemical Processes in Vernal Pool Landscapes. *Hydrological Processes*. 20(5):1157-1175.
- Rains, M. C., R. A. Dahlgren, R. J. Williamson, G. E. Fogg, and T. Harter. 2008. Geological Control of Physical and Chemical Hydrology in Vernal Pools, Central Valley, California. *Wetlands* 28:347–62.
- Raleigh R. F., T. Hickman, R. C. Solomon, and P. C. Nelson. 1984. Habitat Suitability Information: Rainbow Trout. Washington, DC: U.S. Fish and Wildlife Service, FWS/OBS-82/10.60.
- Raleigh, R. F., W. J. Miller, and P. C. Nelson. 1986. Habitat Suitability Index Models and Instream Flow Suitability Curves: Chinook Salmon. (Biological Report 82[10.122]). U.S. Fish and Wildlife Service.
- Rayne, S., Ikonomou, M. G., Ellis, G. M., Barrett-Lennard, L. G., Ross, P. S. 2004. PBDEs, PBBs, and PCNs in three communities of free-ranging killer whales (*Orcinus orca*) from the northeastern Pacific Ocean. *Environmental Science and Technology*. 38: 4293-4299.
- Reece, B. G. Swart, and R. C. Johnson. 2017. Scientific framework for assessing factors influencing endangered Sacramento River winter-run Chinook salmon (*Oncorhynchus tshawytscha*) across the life cycle. NOAA Technical Memorandum NMFS-SWFSC-586. NOAA National Marine Fisheries Service, Southwest Fisheries Science Center Fisheries Ecology Division Santa Cruz, CA.
- Reiser, D. W. and T. C. Bjornn. 1979. Influence of Forest and Rangeland Management of Anadromous Fish Habitat in Western North America - Habitat Requirements of Anadromous Salmonids. USDA Forest Service General Technical Report PNW-96.
- Reyes, G. A., B. J. Halstead, J. P. Rose, J. S. M. Ersan, A. C. Jordan, A. M. Essert, K. J. Fouts, A. M. Fulton, K. B. Gustafson, R. F. Wack, , G. D. Wylie, and M. L. Casazza. 2017, Behavioral response of giant gartersnakes (*Thamnophis gigas*) to the relative availability of aquatic habitat on the landscape: U.S. Geological Survey Open-File Report 2017-1141, 134 pp., <https://doi.org/10.3133/ofr20171141>.
- Reynolds, F. L., T. J. Mills, R. Benthin, and A. Low. 1993. Restoring Central Valley streams: a plan of action. California Department of Fish and Game, Sacramento.
- Riparian Habitat Joint Venture (RHJV). 2004. The Riparian Bird Conservation Plan: a Strategy for Reversing the Decline of Riparian Associated Birds in California. California Partners in Flight. http://www.prbo.org/calpif/pdfs/riparian_v-2.pdf
- Rible, E., M. Saldate, and R. Bilski. 2017 Lower Mokelumne River Salmonid Redd Survey Report: October 2016 through December 2016. 14 pp.

- Richter, A., and Kolmes, S. A., 2005, Maximum temperature limits for Chinook, coho, and chum salmon, and steelhead trout in the Pacific Northwest: Reviews in Fisheries Science, V. 13.
- Ricker, W. E., Manzer, D. F., and Neave, E. A. 1954. The Fraser River eulachon fishery, 1941-1953. Fisheries Research Board of Canada, Manuscript Report No. 583. 35 p.
- Rigney, M., and S. Granholm. 2005. Least Tern. Species Account B234. California Wildlife Habitat Relationships System, California Department of Fish and Game, Sacramento, CA.
- Riley, S. P. D., H. B. Shaffer, S. R. Voss, and B. M. Fitzpatrick. 2003. Hybridization Between a Rare, Native Tiger Salamander (*Ambystoma californiense*) and Its Introduced Congener. Ecological Applications 13:1263–1275.
- River Partners. 2018. Dos Rios Ranch Preserve. Website. Available: <https://www.riverpartners.org/project/dos-rios-ranch/>. Accessed: December 7, 2018.
- Robertson-Bryan, Inc. (RBI). 2017. Report on the Effects of the California WaterFix on Harmful Algal Blooms in the Delta. Prepared for California Department of Water Resources. March. Elk Grove, CA: Robertson-Bryan, Inc. Available: https://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/california_waterfix/exhibits/docs/petitioners_exhibit/dwr/DWR-653.pdf Accessed: December 10, 2018.
- Robinson, D. G., Barraclough, W. E., and Fulton, J. D. 1968a. Data record: Number, size composition, weight and food of larval and juvenile fish caught with a twoboat surface trawl in the Strait of Georgia, May 1-4, 1967. Fisheries Research Board of Canada Manuscript Report Ser. No. 964.
- Robinson, D. G., Barraclough, W. E., and Fulton, J. D. 1968b. Data record: Number, size composition, weight and food of larval and juvenile fish caught with a twoboat surface trawl in the Strait of Georgia, June 5-9, 1967. Fisheries Research Board of Canada Manuscript Report Ser. No. 972.
- Rogers, D. C. 2001. Revision of the Nearctic *Lepidurus* (Notostraca). Journal of Crustacean Biology. 21: 1002–1005.
- Romine, J. G., R. W. Perry, A. C. Pope, P. Stumpner, T. L. Liedtke, K. K. Kumagai, and R. L. Reeves. 2016. Evaluation of a floating fish guidance structure at a hydrodynamically complex river junction in the Sacramento–San Joaquin River Delta, California, USA. Marine and Freshwater Research 68(5):878-888.
- Rose K. A., W. J. Kimmerer, K. P. Edwards and W. A. Bennett. 2013a. Individual-based modeling of Delta Smelt population dynamics in the upper San Francisco Estuary: I. Model description and baseline results. Transactions of the American Fisheries Society 142(5):1238-1259. doi: <http://dx.doi.org/10.1080/00028487.2013.799518>
- Rose, K. A., W. J. Kimmerer, K. P. Edwards and W. A. Bennett. 2013b. Individual-based modeling of Delta Smelt population dynamics in the upper San Francisco Estuary: II. Alternative baselines and good versus bad years. Transactions of the American Fisheries Society 142(5):1260-1272. doi: <http://dx.doi.org/10.1080/00028487.2013.799519>

- Ross P. S., G. M. Ellis, M. G. Ikonomou, L. G. Barrett-Lennard, R. F. Addison. 2000. High PCB concentrations in free-ranging Pacific killer whales, *Orcinus orca*: effects of age, sex and dietary preference. *Marine Pollution Bulletin*. 40(6): 504-515.
- Ruhl, C. A. and D. H. Schoellhamer. 2004. Spatial and temporal variability of suspended sediment concentrations in a shallow estuarine environment. *San Francisco Estuary and Watershed Science* 2(2). <http://escholarship.org/uc/item/1g1756dw>
- Ruiz, G. M., P. W. Fofonoff, J. T. Carlton, M. J. Wonham, and A. H. Hines. 2000. Invasions of Coastal Marine Communities in North America: Apparent Patterns, Process, and Bias. *Annual Review Ecological Systems* 31:481-531.
- Ryman, N., F. Utter, L. Laikre. 1994. Protection of aquatic biodiversity. In: *The State of the World's Fisheries Resources: Proceedings of the World Fisheries Congress plenary sessions*, Voigtlander, C. W. (ed.), pp. 92–115. Oxford & IBH Publishing, New Dehli.
- Sacramento Regional County Sanitation District. Sacramento Regional Wastewater Treatment Plant. 2015. Progress Report. Method of Compliance Work Plan and Schedule for Ammonia Effluent Limitations. Available at: https://www.regionalsan.com/sites/main/files/file-attachments/progress_report_no._5_february_1_2015.pdf.
- Salmon, T. P., and R. H. Schmidt. 1984. An Introductory Overview to California Ground Squirrel Control. In: D.O. Clark (ed.). *Proceedings of the Eleventh Vertebrate Pest Conference*. March 6–8, 1984. Sacramento, CA. Pages 32–37.
- San Francisco Estuary Partnership. 2015. State of the Estuary Report: Status trends and update of 33 indicators of Ecosystem Health, San Francisco Bay and Sacramento-San Joaquin River Delta. pg 96 <http://ebooks.sfei.org/soter2015/>
- San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP). 2000. November 14.
- San Joaquin River Restoration Program (SJRRP). 2010. Conceptual Models of Stressors and Limiting Factors for San Joaquin River Chinook Salmon Fisheries. Exhibit A. Management Plan: A Framework for Adaptive Management in the San Joaquin River Restoration Program.
- Sandercock, F.K. 1991. Life history of coho salmon (*Oncorhynchus kisutch*). In: C. Groot and L. Margolis (editors), *Pacific salmon life histories*, p. 396-445. Univ. British Columbia Press, Vancouver.
- Sardella, B. A., D. Kultz. 2014. The Physiological Response of Green Sturgeon (*Acipenser medirostris*) to Potential Global Climate Change Stressors. *Physiological and Biochemical Zoology*. 87: 456-463.
- Satterthwaite, W. H., Carlson, S. M. and Anne Criss. 2017. Ocean Size and Corresponding Life History Diversity among the Four Run Timings of California Central Valley Chinook Salmon, *Transactions of the American Fisheries Society*, 146:4, 594-610, DOI: 10.1080/00028487.2017.1293562.

- Satterthwaite, W. H., F. Cordoleani, M. R. O'Farrell. 2018. Central Valley Spring-Run Chinook Salmon and Ocean Fisheries: Data Availability and Management Possibilities. *San Francisco Estuary and Watershed Science*. 16: 1-23.
- Saulitis, E., C. Matkin, L. Barrett-Lennard, K. Heise, and G. Ellis. 2000. Foraging strategies of sympatric killer whale (*Orcinus orca*) populations in Prince William Sound, Alaska. *Marine Mammal Science* 16(1):94–109.
- Schick, R. S., A. L. Edsall, and S. T. Lindley. 2005. Historical and current distribution of Pacific salmonids in the Central Valley, CA. National Oceanic and Atmospheric Administration. National Marine Fisheries Service. Technical Memorandum NOAA-TM-NMFS-SWFSC- 369:1-30. Santa Cruz, CA.
- Schoellhamer, D. H. 2011. Sudden clearing of estuarine waters upon crossing the threshold from transport as an erodible sediment pool is depleted: San Francisco Bay, 1999. *Estuaries and Coasts* 34: 885-899.
- Schoellhamer, D. H., S. A. Wright, and J. Drexler. 2012. A Conceptual Model of Sedimentation in the Sacramento–San Joaquin Delta. *San Francisco Estuary and Watershed Science* 10(3).
- Scholz, N. L., E. Fleishman, I. W. L. Brown, M.L. Johnson, M.L. Brooks, C. L. Mitchelmore, and a. D. Schlenk. 2012. A Perspective on Modern Pesticides, Pelagic Fish Declines, and Unknown Ecological Resilience in Highly Managed Ecosystems. *Biosciences* 62(4):428-434.
- Scholz, N. L., M. S. Myers, S. G. McCarthy, J. S. Labenia, J. K. McIntyre. 2011. Recurrence Die-Offs of Adult Coho Salmon Returning to Spawn in Puget Sound Lowland Urban Streams. *PLoS ONE* 6(12):e28013. doi:10.1371/journal.pone.0028013.
- Schreier, B. M., Baerwald, M. R., Conrad, J. L., Schumer G. and B. May. 2016. Examination of Predation on Early Life Stage Delta Smelt in the San Francisco Estuary Using DNA Diet Analysis, *Transactions of the American Fisheries Society*. 145 (4): 723-733, DOI: 10.1080/00028487.2016.1152299.
- Schroeter, R. E., and P. B. Moyle. 2004. Dissolved Oxygen sags in Suisun Marsh, 2004. Unpublished report. 9 pages.
- Schwarzbach, S. E., J. D. Albertson, and C. M. Thomas. 2006. Effects of predation, flooding, and contamination on reproductive success of California Clapper Rails (*Rallus longirostris obsoletus*) in San Francisco Bay. *Auk* 123:45-60. [http://dx.doi.org/10.1642/0004-8038\(2006\)123\[0045:EOPFAC\]2.0.CO;2](http://dx.doi.org/10.1642/0004-8038(2006)123[0045:EOPFAC]2.0.CO;2)
- Scott, G. R. and Sloman, K. A. 2004. The Effects of Environmental Pollutants on Complex Fish Behavior: Integrating Behavioral and Physiological Indicators of Toxicity. *Aquatic Toxicology*. (68) 369-392. <https://doi.org/10.1016/j.aquatox.2004.03.016> Scott, W. B., and E. J. Crossman. 1973. Freshwater fishes of Canada. Fisheries Research Board of Canada Bulletin No. 184.
- Seesholtz, A., M. Manuel, J.V. Eenennaam. 2012. 2011 and 2012 Lower Feather River Green Sturgeon Spawning Survey. Draft Report. Department of Water Resources, West Sacramento, CA.

- Seesholtz, A. M., M. J. Manuel, and J. P. Van Eenennaam. 2015. First documented spawning and associated habitat conditions for Green Sturgeon in the Feather River, California. *Environmental Biology of Fishes* 98:905–912.
- Semlitsch, R. D., D. E. Scott, J. H. K. Pechmann, and J. W. Gibbons. 1996. Structure and Dynamics of an Amphibian Community: Evidence From A 16-Year Study of a Natural Pond.
- Shaffer, H. B., and P. C. Trenham. 2005. *Ambystoma californiense*. Pages 1093–1102 in M. J. Lannoo (ed.), Status and Conservation of U.S. Amphibians. Volume 2: Species Accounts. Berkeley, CA: University of California Press.
- Shaffer, H. B., R. N. Fisher, and S. E. Stanley. 1993. Status Report: the California Tiger Salamander (*Ambystoma californiense*). Final report for the California Department of Fish and Game.
- Shellhammer, H. and L. Barthman-Thompson. 2015. Appendix 5.1- Case Study: Salt Marsh Harvest Mouse (*Reithrodontomys raviventris*). Science Foundation Chapter 5. Baylands Ecosystem Habitat Goals Science Update. Available: https://baylandsgoals.org/wp-content/uploads/2015/10/BEHGU_5.1_CaseStudy_SMHM-1.pdf. Accessed: December 12, 2018.
- Shellhammer, H. and R. Duke. 2010. Salt marsh harvest mice and width of salt marshes in the South San Francisco Bay. *California Fish and Game*. 96(2): 165–170.
- Shellhammer, H., R. Duke, and M. C. Orland. 2010. Use of brackish marshes in the south San Francisco Bay by salt marsh harvest mice. *California Fish and Game*. 96(4): 256–259.
- Shields, I. A. 1936. Application of Similarity Principles and Turbulence Research to Bed-Load Movement. California Institute of Technology, Soil Conservation Service Cooperative Laboratory. Available at: <https://authors.library.caltech.edu/25992/1/Sheilds.pdf>. Shuford, W. D. 1993. The Marin County breeding bird atlas. Bushtit Books, Bolinas, CA.
- Siegfried, L. J., W. E. Fleenor, and J. R. Lund. 2014. Physically Based Modeling of Delta Island Consumptive Use: Fabian Tract and Staten Island, California. *San Francisco Estuary and Watershed Science* 12(4).
- Simberloff, D., I.M. Parker, and P.N. Windle. 2005. Introduced Species Policy, Management, and Future Research Needs. *Frontiers in Ecology and the Environment* 3(1):12-20.
- Slater, S.B. and R.D. Baxter. 2014. Diet, prey selection, and body condition of age-0 delta smelt, in the Upper San Francisco Estuary. *San Francisco Estuary Watershed Science* 12(3). doi: <http://dx.doi.org/10.15447/sfew.2014v12iss3art1>.
- Slotten D. G., S. M. Ayers, T. H. Suchanek, R. D. Weyand, A. M. Liston, C. Asher, D. C. Nelson, B. Johnson. 2002. The effects of wetland restoration on the production and 15 bioaccumulation of methyl mercury in the Sacramento-San Joaquin Delta, California. CALFED Bay-Delta Program Draft Report. 49 p.
- Smith, W. 2018. A general linear model relating an index of proportional entrainment loss to turbidity and Old and Middle River flow. Draft. 4 October. Sacramento, CA: U.S. Fish and Wildlife Service, San Francisco Bay-Delta Fish and Wildlife Office.

- Smith, W. E., and Saalfeld, R. W. 1955. Studies on Columbia River smelt *Thaleichthys pacificus* (Richardson). Washington Department of Fisheries, Fisheries Research Paper 1(3): 3–26.
- Snieder and Titus, 2000. Timing, Composition, and Abundance of Juvenile Anadromous Salmonid Emigration in the Sacramento River Near Knights Landing. October 1997–September 1998. Department of Fish and Wildlife.
- Sommer, T. R., M. L. Nobriga, W. C. Harrell, W. Batham, and W. J. Kimmerer. 2001a. “Floodplain Rearing of Juvenile Chinook Salmon: Evidence of Enhanced Growth and Survival.” *Canadian Journal of Fisheries and Aquatic Science* 58: 325–333.
- Sommer, T. and F. Mejia. 2013. A place to call home: a synthesis of Delta Smelt habitat in the upper San Francisco Estuary. *San Francisco Estuary and Watershed Science* 11(2).
<https://escholarship.org/uc/item/32c8t244>
- Sommer, T. C., Mejia, F., Nobriga, M. L., Feyrer, F., and L. Grimaldo. 2011. The Spawning Migration of Delta Smelt in the Upper San Francisco Estuary. *San Francisco Estuary and Watershed Science*, 9(2). *San Francisco Estuary and Watershed Science*, John Muir Institute of the Environment, UC Davis. Available on the internet at <<http://escholarship.org/uc/item/86m0g5sz>>.
- Sommer, T. R., M. L. Nobriga, W. C. Harrell, W. Batham, and W. J. Kimmerer. 2001. Floodplain Rearing of Juvenile Chinook Salmon: Evidence of Enhanced Growth and Survival. *Canadian Journal of Fisheries and Aquatic Sciences* 58(2):325–333.
- Sommer, T. R., W. C. Harrell, and M. L. Nobriga. 2005. Habitat Use and Stranding Risk of Juvenile Chinook Salmon on a Seasonal Floodplain. *North American Journal of Fisheries Management* 25:1493–1504
- Sommer, T., and F. Mejia. 2013. A Place to Call Home: A Synthesis of Delta Smelt Habitat in the Upper San Francisco Estuary. *San Francisco Estuary and Watershed Science* 11(2).
- Sommer, T., F. Mejia, K. Hieb, R. Baxter, E. Loboschetsky, and F. Loge. 2011. Long-Term Shifts in the Lateral Distribution of Age-0 Striped Bass in the San Francisco Estuary. *Transactions of the American Fisheries Society* 140(6):1451–1459.
- Sommer, T., L. Conrad, and M. Koller. 2018. Suisun Marsh Salinity Control Gate Study. Briefing to Collaborative Science and Adaptive Management Group. December.
- Spangler, E. A. K. 2002. The ecology of eulachon (*Thaleichthys pacificus*) in Twentymile River, Alaska. M.S. Thesis. University of Alaska, Fairbanks.
- Spence, B. C., G. A. Lomnický, R. M. Hughes and R. P. Novitzki. 1996. An Ecosystem Approach to Salmonid Conservation. Funded jointly by the U.S. EPA, U.S. Fish and Wildlife Service and National Marine Fisheries Service. TR-4501-96-6057. Man Tech Environmental Research Services Corp., Corvallis, OR.
<http://www.nwr.noaa.gov/1habcon/habweb/ManTech/front.htm#TOC>.
- Spence, B., E. P. Bjorkstedt, J.C. Garza, J.J. Smith, D.G. Hankin, D. Fuller, W.E. Jones, R. Macedo, T.H. Williams and E. Mora. 2008. A framework for assessing the viability of threatened and

- endangered salmon and steelhead in North-Central California Coast Recovery Domain. NOAA-TM-NMFS-SWFSC-423.
- Spence, B. C., E. P. Bjorkstedt, S. Paddock, and L. Nanus. 2012. Updates to biological viability criteria for threatened steelhead populations in the North-Central California Coast Recovery Domain. National Marine Fisheries Service, Southwest Fisheries Science Center, Fisheries Ecology Division, Santa Cruz, CA.
- Spromberg, J. A. and N. L. Scholz. 2011. Estimating the Future Decline of Wild Coho Salmon Populations Resulting from Early Spawner Die-Offs in Urbanizing Watersheds of the Pacific Northwest, USA. *Integrated Environmental Assessment and Management* 7(4):648-656.
- Stachowicz, J. J. and J. E. Byrnes. 2006. Species Diversity, Invasion Success, and Ecosystem Functioning: Disentangling the Influence of Resource Competition, Facilitation, and Extrinsic Factors. *Marine Ecology Progress Series* 311:251-262.
- Stanislaus Operations Group. 2018. Annual Report of Activities Water Year 2018. November.
- State Water Resources Control Board (SWRCB). 1990. Order: WR 90-5. Order Setting Terms and Conditions for Fishery Protection and Setting a Schedule for Completion of Tasks. Available at https://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/california_waterf/x/exhibits/docs/swrcb_24.pdf.
- State Water Resources Control Board (SWRCB). 2003. SWRCB Order WR 2003-0016 In the Matter of Fishery Resources and Water Right Issues of the Lower Yuba River. Order Vacating Water Right Decision 1644 and Adopting Revised Water Right Decision 1644 Following Consideration of Additional Evidence Specified by Yuba County Superior Court.
- State Water Resources Control Board (SWRCB). 2003. Revised Water Right Decision 1644 in the Matter of Fishery Resources and Water Right Issues of the Lower Yuba River. State Water Resources Control Board (SWRCB). 1990. Order: WR 90-5. Order Setting Terms and Conditions for Fishery Protection and Setting a Schedule for Completion of Tasks. Available at https://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/california_waterf/x/exhibits/docs/swrcb_24.pdf.
- State Water Resources Control Board (SWRCB). 2010. Resolution No. 2010-0020; Water Quality Control 3 Policy on the use of Coastal and Estuarine Water for Power Plant Cooling. Available: 4 SWRCB_2010_PowerPlantWaterResolution.
- Stebbins, R. C. 2003. A Field Guide to Western Reptiles and Amphibians. Third Edition. Peterson Field Guide Series. Boston: Houghton Mifflin Company.
- Stevens, D. E. 1977. Striped bass (*Morone saxatilis*) year class strength in relation to river flow in the Sacramento-San Joaquin Estuary, California. *Transactions of the American Fisheries Society* 106(1):34-42. doi: [http://dx.doi.org/10.1577/1548-8659\(1977\)106<34:SBMSYC>2.0.CO;2](http://dx.doi.org/10.1577/1548-8659(1977)106<34:SBMSYC>2.0.CO;2)
- Stevens, D. E. and L. W. Miller. 1983. Effects of river flow on abundance of young Chinook salmon, American shad, longfin smelt, and delta smelt in the Sacramento-San Joaquin river system. *North American Journal of Fisheries Management* 3:425-437.

- Stillwater Sciences. 2006. Upper Yuba River Water Temperature Criteria for Chinook Salmon and Steelhead. Technical Appendix.
- Stone, L., 1893. Baird Station, California. U.S. Fish Comm. Report for 1888: XXXV-XXXVI
- Stone, L., 1895. U.S. Commission of Fish and Fisheries. Comm. Rept. 1893. 117pp
- Stone, L., 1896a. U.S. Commission of Fish and Fisheries. Comm. Rept. 1896. 66 pp
- Stone, L., 1896b. U.S. Commission of Fish and Fisheries. Comm. Rept. 1895. 44 pp
- Stone, L., 1896c. U.S. Commission of Fish and Fisheries. Comm. Rept. 1893. 49 pp
- Stone, L., 1898. U.S. Commission of Fish and Fisheries. Comm. Rept. 1897. 64 pp
- Storer, T. I. 1925. A Synopsis of the Amphibia of California. University of California Publications in Zoology 27:60–71.
- Sturdevant, M. V. 1999. Forage Fish Diet Overlap, 1994-1996. APEX Project: Alaska Predator Ecosystem Experiment in Prince William Sound and the Gulf of Alaska. Exxon Valdez Oil Spill Restoration Project Final Report (Restoration Project 98163C), Auke Bay Laboratory, National Marine Fisheries Service, Juneau, Alaska.
- Sustaita, D., P. Finfrock Quickert, L. Patterson, L. Barthman Thompson, and S. Estrella. 2011. Salt marsh harvest mouse demography and habitat use in the Suisun Marsh. *Journal of Wildlife Management* 75: 1498–1507.
- Sutphin, Z. A., and C. D. Svoboda. 2016. Effects of hydraulic conditions on salvage efficiency of adult delta smelt at the Tracy Fish Collection Facility. Tracy Fish Collection Facility Studies, Volume 43. U.S. Bureau of Reclamation, Mid-Pacific Region and Denver Technical Service Center. 63 pp. Swank, Dave. 2015. National Marine Fisheries Service, Sacramento, California. Oral conversation on 6/19/2015.
- Swanson, C., T. Reid, P. S. Young, J. J. Cech Jr. 2000. Comparative environmental tolerances of threatened delta smelt (*Hypomesus transpacificus*) and introduced wakasagi (*H. nipponensis*) in an altered California estuary. *Oecologia* 123:384-390.
- Sweeney, B. W. , Bott, T. L. , Jackson, J. K. , Kaplan, L. A. , Newbold, J. D. , Standley, L. J. ,Hession, W. C. , and R. J. Horwitz. 2004. Riparian deforestation, stream narrowing, and loss of stream ecosystem services. *National Academy of Sciences* 101:14132-14137.
- Sweetnam, D. A. 1999. Status of delta smelt in the Sacramento-San Joaquin Estuary. *California Fish and Wildlife* 85:22-27.
- Ta, J., L. W. Anderson, M. A. Christman, S. Khanna, D. Kratville, J. D. Madsen. 2017. Invasive Aquatic Vegetation Management in the Sacramento–San Joaquin River Delta: Status and Recommendations. *San Francisco Estuary and Watershed Science*, 15(4). Available at: <https://escholarship.org/uc/item/828355w6>

- Takata, L., T. R. Sommer, J. L. Conrad, B. M. Schreier. 2017. Rearing and migration of juvenile Chinook Salmon (*Oncorhynchus tshawytscha*) in a large river floodplain. *Env Biology Fish* 100:1105 - 1120. <https://doi.org/10.1007/s10641-017-0631-0>
- Talley, T. S., and M. Holyoak. 2009. Effects of Highways and Highway Construction Activities on Valley Elderberry Longhorn Beetle Habitat. No. FHWA/CA 09-0925. California Department of Transportation.
- Talley, T. S., D. Wright, and M. Holyoak. 2006. Assistance with the 5-year review of the valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*). Report to the U.S. Fish and Wildlife Service, Sacramento Fish and Wildlife Office, Sacramento, California. 74 pp. + appendix.
- Talley, T. S., E. Fleishman, M. Holyoak, D. D. Murphy, and A. Ballard. 2007. Rethinking a rare species conservation strategy in an urban landscape: The case of the valley elderberry longhorn beetle. *Biological Conservation* 135:21–32.
- Tenera Environmental. 2018a. Unpublished fish monitoring data from the Rock Slough Fish Screen from 2011–2018. Salmon/Steelhead Log (spreadsheet). Revised February 2018. Lafayette, California.
- Tenera Environmental. 2018b. Fish Monitoring Report for the Rock Slough Fish Screen Facility – December 16–31, 2017. Submitted January 16, 2018. Lafayette, California.
- Thomas, M. J., M. L. Peterson, N. Friedenberg, J. P. Van Eenennaam, J. R. Johnson, J. J. Hoover, and A. P. Klimley. 2013. Stranding of Spawning Run Green Sturgeon in the Sacramento River: Post-Rescue Movements and Potential Population-Level Effects. *North American Journal of Fisheries Management* 33(2):287–297.
- Thompson, John, 1957, The settlement geography of the Sacramento-San Joaquin Delta, California: Palo Alto, Calif., Stanford University, Ph.D. dissertation, 551 p.
- Thompson B., S. Lowe, and M. Kellogg. 2000. Results of the benthic pilot study, 1994–1997. Part 1–microbenthic assemblages of the San Francisco Bay–Delta, and their responses to abiotic factors. Regional Monitoring Program Technical Report 39. Oakland (CA): San Francisco Estuary Institute.
- Thompson, B. C., J. A. Jackson, J. Burger, L. A. Hill, E. M. Kirsch, and J. L. Atwood. 1997. Least Tern (*Sterna antillarum*). *The Birds of North America Online* (A. Poole, ed.). Ithaca: Cornell Lab of Ornithology. Available: <<http://bna.birds.cornell.edu/bna/species/290>>.
- Thomson, J. R., W. J. Kimmerer, L. R. Brown, K. B. Newman, R. Mac Nally, W. A. Bennett, F. Feyrer, and E. Fleishman. 2010. Bayesian change point analysis of abundance trends for pelagic fishes in the upper San Francisco Estuary. *Ecological Applications* 20(5):1431–1448.
- Tockner, K., Stanford, J. 2002. Riverine flood plains: Present state and future trends. *Environmental Conservation*, 29(3), 308–330. doi:10.1017/S037689290200022X.
- Trenham, P. C., W. D. Koenig, and H. B. Shaffer. 2001. Spatially Autocorrelated Demography and Interpond Dispersal in the Salamander *Ambystoma californiense*. *Ecology* 82:3519–3530.

- Trush, W. J., S. M. McBain and L. B. Leopold, 2000. Attributes of an alluvial river and their relation to water policy and management. *Proceedings of the National Academy of Sciences of the United States of America*, 97 (22): 11858-11863.
- Tucker, M. E., C. M. Williams, R. R. Johnson. 1998. Abundance, food habits and life history aspects of Sacramento squawfish and striped bass at the Red Bluff Diversion Complex, including the Research Pumping Plant, Sacramento River, California, 1994-1996. Red Bluff Research Pumping Plant Report Series, Volume 4. U.S. Fish and Wildlife Service, Red Bluff, California.
- Turlock Irrigation District and Modesto Irrigation District. 2017. La Grange Hydroelectric Project FERC No. 14581. Final License Application. Attachment E - Applicant-Prepared Biological Assessment for California Central Valley Steelhead (*Oncorhynchus mykiss*) Distinct Population Segment. September.
- Turner, J. L. and H. K. Chadwick. 1972. Distribution and Abundance of young-of-the-year striped bass, *Morone saxatilis*, in relation to river flow in the Sacramento-San Joaquin estuary. *Transactions of the American Fisheries Society* 101(3):442-452.
- Twitty, V. C. 1941. Data on the Life History of *Ambystoma tigrinum californiense* Gray. *Copeia* 1941:1-4.
- U. S. Army Corps of Engineers. 2014. Biological Opinion on the Operation and Maintenance of Daguerre point Dam and Fish Ladders. May 12. Available at: https://www.spk.usace.army.mil/Portals/12/documents/parks_lakes/Englebright/20140512_Yuba_2014_Daguerre_BiOp_and_Cover_Letter_Signed.pdf
- U.S. Bureau of Reclamation (Reclamation). 2008a. Biological Assessment on the Continued Long-term Operations of the Central Valley Project and the State Water Project. Sacramento, CA: Mid-Pacific Region.
- U.S. Bureau of Reclamation (Reclamation). 2008b. Formal Endangered Species Act Consultation on the Proposed Coordinated Operations of the Central Valley Project (CVP) and State Water Project (SWP). Biological Opinion. December 15. Fish and Wildlife Service, Region 8. Sacramento, CA. Available at: http://www.fws.gov/sfbaydelta/documents/SWP-CVP_OPs_BO_12-15_final_OCR.pdf.
- U.S. Bureau of Reclamation (Reclamation). 2011. Adaptive management of fall outflow for delta smelt protection and water supply reliability. U.S. Bureau of Reclamation, Sacramento, CA. Available at: <http://www.usbr.gov/mp/BayDeltaOffice/docs/Adaptive%20Management%20of%20Fall%20Outflow%20for%20Delta%20Smelt%20Protection%20and%20Water%20Supply%20Reliability.pdf>.
- U.S. Bureau of Reclamation (Reclamation). 2012. Adaptive management of fall outflow for delta smelt protection and water supply reliability. U.S. Bureau of Reclamation, Sacramento, CA. Available at: http://deltacouncil.ca.gov/sites/default/files/documents/files/Revised_Fall_X2_Adaptive_MgmtPlan_EVN_06_29_2012_final.pdf.

- U.S. Bureau of Reclamation (Reclamation). 2012. Final Biological Assessment and Essential Fish Habitat Determination on the Proposed Removal of Four Dams on the Klamath River. August. U.S. Department of the Interior, Bureau of Reclamation.
- U.S. Bureau of Reclamation (Reclamation). 2016. Environmental Assessment, Lower American River Anadromous Fish Habitat Restoration Project. 68 p.
https://www.usbr.gov/mp/nepa/includes/documentShow.php?Doc_ID=24637
- U.S. Bureau of Reclamation (Reclamation). 2016. Environmental Assessment, Lower American River Anadromous Fish Habitat Restoration Project. 68 p.
https://www.usbr.gov/mp/nepa/includes/documentShow.php?Doc_ID=24637
- U.S. Bureau of Reclamation (Reclamation). 2016. Biological Assessment for the California WaterFix. Chapter 5. Effects analysis for Chinook salmon, Central Valley steelhead, green sturgeon and killer whale. July 2016
- U.S. Bureau of Reclamation (Reclamation). 2016. Biological Assessment for the California WaterFix. Chapter 5. Effects analysis for Chinook salmon, Central Valley steelhead Central Valley Steelhead, green sturgeon Green Sturgeon and Killer Whale. July 2016
- U.S. Bureau of Reclamation (Reclamation). 2017. Yolo Bypass Salmonid Habitat Restoration and Fish Passage. Draft Environmental Impact Statement/Environmental Impact Report. December.
- U.S. Bureau of Reclamation (Reclamation). 2018. Environmental Assessment. Sacramento Deep Water Ship Channel Nutrient Enrichment Project. June. U.S. Department of the Interior, Bureau of Reclamation.
- U.S. Bureau of Reclamation (Reclamation). 2018a. NMFS Biological Opinion RPA IV.2.2: 2011 Six-Year Acoustic Telemetry Steelhead Study. Contributions by Buchanan, R., J. Israel, P. Brandes, E. Buttermore. Reclamation Bay-Delta Office, Mid-Pacific Region, Sacramento, CA. FINAL REPORT May 14, 2018, 144p.
- U.S. Bureau of Reclamation (Reclamation). 2018b. NMFS Biological Opinion RPA IV.2.2: 2012 Six-Year Acoustic Telemetry Steelhead Study. Contributions by Buchanan, P. Brandes, R., J. Israel, E. Buttermore. Reclamation Bay-Delta Office, Mid-Pacific Region, Sacramento, CA. FINAL REPORT May 16, 2018, 172p.
- U.S. Bureau of Reclamation (Reclamation). 2018c. NMFS Biological Opinion RPA IV.2.2: 2013 Six-Year Acoustic Telemetry Steelhead Study. Contributions by Buchanan, P. Brandes, R., J. Israel, E. Buttermore. Reclamation Bay-Delta Office, Mid-Pacific Region, Sacramento, CA. FINAL REPORT July 2018. 197p.
- U.S. Bureau of Reclamation (Reclamation) and California Department of Water Resources (DWR). 2013. Bay Delta Conservation Plan Public Draft. Sacramento, CA. Available at:
<http://baydeltaconservationplan.com/EnvironmentalReview/EnvironmentalReview/2013-2014PublicReview/2013PublicReviewDraftBDGP.aspx>.
- U.S. Bureau of Reclamation (Reclamation) and California Department of Fish and Wildlife (CDFW). 2017. Hatchery and Genetics Management Plan for Trinity River Hatchery coho salmon. Shasta Lake, CA, December 2017. 117 pages.

- U.S. Department of the Interior. 2000. Trinity River mainstem fishery restoration EIS. Department of Interior. Sacramento.
- U.S. Environmental Protection Agency (EPA). 2001. Trinity River Total Maximum Daily Load for Sediment. Region IX.
- U.S. Environmental Protection Agency (EPA). 2003. EPA Region 10 Guidance for Pacific Northwest State and Tribal Temperature Water Quality Standards. EPA 910-B-03-002.
- U.S. Environmental Protection Agency (EPA). 2015. 2015 Drinking Water Health Advisories for Two Cyanobacterial Toxins. Viewed online at: https://www.epa.gov/sites/production/files/2017-06/documents/cyanotoxins-fact_sheet-2015.pdf. Accessed: Dec. 13, 2018.
- U.S. Fish and Wildlife Service (USFWS). 1984. Valley Elderberry Longhorn Beetle Recovery Plan.
- U.S. Fish and Wildlife Service (USFWS). 1985. Revised California least tern recovery plan. U.S. Fish and Wildlife Service, Region 1, Portland, Oregon.
- U.S. Fish and Wildlife Service (USFWS). 1991. Endangered and threatened wildlife and plants; proposed threatened status for the delta smelt. Federal Register 56: 50075-50082.
- U.S. Fish and Wildlife Service (USFWS). 1993. Endangered and threatened wildlife and plants; final rule, determination of threatened status of the delta smelt. Federal Register 58: 12854-12864.
- U.S. Fish and Wildlife Service (USFWS). 1993. Formal Consultation on Effects of the Proposed Los Vaqueros Reservoir Project on Delta Smelt, Contra Costa County, California. Service File Number 1-1-93-F-35. Issued September 9, 1993.
- U.S. Fish and Wildlife Service (USFWS). 1994. Endangered and threatened wildlife and plants; final rule critical habitat determination for the delta smelt. Federal Register 59: 65256-65277.
- U.S. Fish and Wildlife Service (USFWS). 1994. Endangered and Threatened Wildlife and Plants; Critical Habitat Determination for Delta Smelt. 50 CFR Part 17. RIN 1018-AB66. December 19.
- U.S. Fish and Wildlife Service (USFWS). 1995. Working Paper on Restoration Needs: Habitat Restoration Actions to Double Natural Production of Anadromous Fish in the Central Valley of California. Volume 2. May 9. Prepared for the U.S. Fish and Wildlife Service under the direction of the Anadromous Fish Restoration Program Core Group, Stockton, CA.
- U.S. Fish and Wildlife Service (USFWS). 1996. Recovery Plan for the Sacramento–San Joaquin Delta Native Fishes, November 26. Portland, Oregon. Available at: http://ecos.fws.gov/docs/recovery_plan/961126.pdf.
- U.S. Fish and Wildlife Service (USFWS). 1998. Juvenile Salmonid Monitoring on the Mainstem Trinity River at Willow Creek and Mainstem Klamath River at Big Bar, 1992–1995. Annual Report of the Klamath River Fisheries Assessment Program. Coastal California Fish and Wildlife Office, Arcata, CA.
- U.S. Fish and Wildlife Service (USFWS). 1998. Recovery plan for upland species of the San Joaquin Valley, California. Region 1, Portland, OR. 319 pp.

- U.S. Fish and Wildlife Service (USFWS). 1999. Draft Recovery Plan for the Giant Garter Snake (*Thamnophis gigas*). U.S. Fish and Wildlife Service, Portland, Oregon. x + 192 pp.
- U.S. Fish and Wildlife Service (USFWS). 1999. Effect of temperature on early-life survival of Sacramento River fall- and winter-run chinook salmon. Red Bluff, CA: Northern Central Valley Fish and Wildlife Office, January 1999.
- U.S. Fish and Wildlife Service (USFWS). 2000. Endangered and Threatened Wildlife and Plants; Final Rule to List the Riparian Brush Rabbit and the Riparian, or San Joaquin Valley Woodrat as endangered. Federal Register 65 8881-8890.
- U.S. Fish and Wildlife Service (USFWS). 2000. Formal Consultation Pursuant to Section 7 of the Endangered Species Act of 1973; as Amended, on Contra Costa Water District's Construction of a Multipurpose Pipeline and Future Water Supply Implementation Program, Contra Costa County, California. Service File Number 1-1-99-F-93. Issued April 27.
- U.S. Fish and Wildlife Service (USFWS). 2000a. Outmigrant Trapping of Juvenile Salmonids in the Lower Stanislaus River, Caswell State Park Site 1999. Prepared by S. P. Cramer & Associates, Inc.
- U.S. Fish and Wildlife Service (USFWS). 2000b. September 2000 Standard Grants. Division of Bird Habitat Conservation. Available at:
http://www.fws.gov/birdhabitat/grants/nawca/standard/us/2000_Sept.shtm.
- U.S. Fish and Wildlife Service (USFWS). 2001. Final Restoration Plan for the Anadromous Fish Restoration Program. Available at:
https://www.fws.gov/cno/fisheries/CAMP/Documents/Final_Restoration_Plan_for_the_AFRP.pdf. Accessed: January 31, 2019.
- U.S. Fish and Wildlife Service (USFWS). 2003. California Tiger Salamander. Sacramento: Endangered Species Division. Available at:
http://sacramento.fws.gov/es/animal_spp_acct/california_tiger_salamander.htm
- U.S. Fish and Wildlife Service (USFWS). 2004. 5-year review of the delta smelt.
<http://www.fws.gov/sacramento/es/documents/DS%205-yr%20rev%203-31-04.pdf>.
- U.S. Fish and Wildlife Service (USFWS). 2004. Long-Term Central Valley Project and State Water Project Operations Criteria Plan Biological Opinion for Delta Smelt. Service file #1-1-05-F-0055.
- U.S. Fish and Wildlife Service (USFWS). 2005. Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon. Region 1. Portland, Oregon. December 15.
- U.S. Fish and Wildlife Service (USFWS). 2005. Reinitiation of Formal and Early Section 7 Endangered Species Consultation on the Coordinated Operations of the Central Valley Project and State Water Project and the Operational Criteria and Plan to Address Potential Critical Habitat Issues. United States Fish and Wildlife Service, Sacramento, CA.
- U.S. Fish and Wildlife Service (USFWS). 2006a. Least Bell's Vireo (*Vireo bellii pusillus*) 5-Year Review Summary and Evaluation. Carlsbad, CA: U.S. Fish and Wildlife Service, Carlsbad Fish and Wildlife Office. September.

- U.S. Fish and Wildlife Service (USFWS). 2006d. California least tern (*Sternula antillarum browni*) 5-Year Review Summary and Evaluation. Carlsbad, CA: U.S. Fish and Wildlife Service, Carlsbad Fish and Wildlife Office. September.
- U.S. Fish and Wildlife Service (USFWS). 2007. Vernal Pool Fairy Shrimp, *Branchinecta lynchi*, Conservation 5-year Review. Available: < https://www.fws.gov/cno/es/images/graphics/vpfs_5-yr%20review%20cno%20final%2027sept07.pdf >.
- U.S. Fish and Wildlife Service (USFWS). 2007. Formal Consultation on the Contra Costa Water District Alternative Intake Project, Contra Costa County, California. Service File Number 1-1-07-F-044. Issued April 27.
- U.S. Fish and Wildlife Service (USFWS). 2008a. Formal Endangered Species Act Consultation on the Proposed Coordinated Operations of the Central Valley Project (CVP) and State Water Project (SWP), USFWS File No. 81420-2008-F-1481-5. Available on the internet at: <<http://www.fws.gov/sfbaydelta/ocap/>>.
- U.S. Fish and Wildlife Service (USFWS). 2008b. Biological Opinion on the Effects of Long Term Coordinated Operations of the Central Valley (CVP) and State Water Project (SWP) on Delta Smelt and its Designated Critical Habitat. December.
- U.S. Fish and Wildlife Service (USFWS). 2009. Species Account. Valley Elderberry Longhorn Beetle. *Desmocerus californicus dimorphus*. Sacramento, California. Last updated: May 20, 2009.
- U.S. Fish and Wildlife Service (USFWS). 2009a. *Cordylanthus mollis* spp. *mollis* (Soft Bird's-Beak) 5-Year Review: Summary and Evaluation. Sacramento: U.S. Fish and Wildlife Service, Sacramento Fish and Wildlife Office. January.
- U. S. Fish and Wildlife Service (USFWS). 2009b. *Cirsium hydrophilum* var. *hydrophilum* (Suisun Thistle). 5-Year Review: Summary and Evaluation. Sacramento, California. January.
- U. S. Fish and Wildlife Service (USFWS). 2010b. Endangered and threatened wildlife and plants; 12-month finding on a petition to reclassify the delta smelt from threatened to endangered throughout its range. Federal Register 75:17667-17680. <https://www.gpo.gov/fdsys/pkg/FR-2010-04-07/pdf/2010-7904.pdf>
- U.S. Fish and Wildlife Service (USFWS). 2010. Concurrence on the Los Vaqueros Reservoir Expansion Project is Not Likely to Adversely Affect the Delta Smelt (File MP-730 ENV -7.0). File Number 81410-2011-1-0001. Dated November 1.
- U.S. Fish and Wildlife Service (USFWS). 2010a. 5-year review delta smelt (*Hypomesus transpacificus*). http://ecos.fws.gov/docs/five_year_review/doc3570.pdf
- U.S. Fish and Wildlife Service (USFWS). 2010b. Endangered and threatened wildlife and plants; 12-month finding on a petition to reclassify the delta smelt from threatened to endangered throughout its range. Federal Register 75:17667-17680. <https://www.gpo.gov/fdsys/pkg/FR-2010-04-07/pdf/2010-7904.pdf>

- U.S. Fish and Wildlife Service (USFWS). 2010c. Notice of Findings on Delta Smelt uplisting. Federal Register 75:69222-69294. <https://www.gpo.gov/fdsys/pkg/FR-2010-11-10/pdf/2010-27686.pdf#page=2>
- U.S. Fish and Wildlife Service (USFWS). 2011. First Draft Formal Endangered Species Act Consultation on the Proposed Coordinated Operations of the Central Valley Project and State Water Project. Sacramento, CA.
- U.S. Fish and Wildlife Service (USFWS). 2012b. Endangered and Threatened Wildlife and Plants; Review of Native Species That Are Candidates for Listing as Endangered or Threatened; Annual Notice of Findings on Resubmitted Petitions; Annual Description of Progress on Listing Actions; Proposed Rule. November 21. Available at: <https://www.fws.gov/policy/library/2012/2012-28050.html>
- U.S. Fish and Wildlife Service (USFWS). 2012. About the Refuge. San Joaquin River National Wildlife Refuge. Website. Available: https://www.fws.gov/Refuge/San_Joaquin_River/about.html. Last updated: December 21, 2012. Accessed: December 7, 2018.
- U.S. Fish and Wildlife Service (USFWS). 2012. Giant Garter Snake (*Thamnophis gigas*) 5-Year Review: Summary and Evaluation. U.S. Fish and Wildlife Service Office, Sacramento, California.
- U.S. Fish and Wildlife Service (USFWS). 2013. Recovery plan for tidal marsh ecosystems of northern and central California. [Sacramento (CA)]: U.S. Fish and Wildlife Service [Internet]. 623 p. Available from: https://www.fws.gov/sfbaydelta/documents/tidal_marsh_recovery_plan_v1.pdf
- U.S. Fish and Wildlife Service (USFWS). 2013. Biological Opinion on the Proposed Suisun Marsh Habitat Management, Preservation, and Restoration Plan and the Project-Level Actions in Solano County, California. Service File No. 08ESMF00-2012-F-0602-2. June 10. Sacramento, CA: U.S. Fish and Wildlife Service, Sacramento Fish and Wildlife Office.
- U.S. Fish and Wildlife Service (USFWS). 2013. Recovery Plan for Tidal Marsh Ecosystems of Northern and Central California. Sacramento, California. xviii + 605 pp.
- U.S. Fish and Wildlife Service (USFWS). 2013. The Delta Juvenile Fish Monitoring Program. Stockton Fish and Wildlife Office. Available at: <http://www.fws.gov/stockton/jfmp/>.
- U.S. Fish and Wildlife Service (USFWS). 2013. Biological Opinion for the 2013–2017 *Egeria densa* Control Program in the Sacramento-San Joaquin Delta, California. Service File No. 08FBDT00-2013-F-0015. May 3. Sacramento, CA: U.S. Fish and Wildlife Service, San Francisco Bay-Delta Fish and Wildlife Office.
- U.S. Fish and Wildlife Service (USFWS). 2014. Endangered and Threatened Wildlife and Plants; Withdrawal of the Proposed Rule To Remove the Valley Elderberry Longhorn Beetle From the Federal List of Endangered and Threatened Wildlife. Federal Register 79(180):55874-55917.
- U.S. Fish and Wildlife Service (USFWS). 2014b. Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for the Western Distinct Population Segment of the Yellow-Billed Cuckoo. Federal Register 79(158):48548-48652.

- U.S. Fish and Wildlife Service (USFWS). 2015. Reinitiation of Programmatic Formal Consultation for Bureau of Reclamation's Proposed Central Valley Project Long Term Water Transfers (2015–2024) with Potential Effects on the Giant Garter Snake with Sacramento Valley, California. June 4, 2015. Available: <https://www.usbr.gov/mp/cvp/docs/June-4-2015-Biological-Opinion-CVP-Long-Term-Water-Transfers.pdf>. Accessed: December 6, 2018.
- U.S. Fish and Wildlife Service (USFWS). 2015. Sacramento River tributaries Habitat Synthesis Report. Anadromous Fish Restoration Program. January 9, 2015.
- U.S. Fish and Wildlife Service (USFWS). 2017. Amendment of the 2005 Biological Opinion on the Operations and Maintenance Program Occurring on Bureau of Reclamation Lands within South-Central California Area Office (Service File No: 1-1-04-F-036S) to include the Rock Slough Fish Screen Facility Improvement Project (Bureau of Reclamation File No: 423 ENV 7.00). Service File Number 08FBDT00-2017-F-0072. November 2.
- U.S. Fish and Wildlife Service (USFWS). 2017. Recovery Plan for the Central California Distinct Population Segment of the California Tiger Salamander (*Ambystoma californiense*). U.S. Fish and Wildlife Service, Pacific Southwest Region, Sacramento, California. v + 6.
- U.S. Fish and Wildlife Service (USFWS). 2017. Recovery Plan for the Giant Garter Snake (*Thamnophis gigas*). U.S. Fish and Wildlife Service, Pacific Southwest Region, Sacramento, California. vii + 71 pp.
- U.S. Fish and Wildlife Service (USFWS). 2017a. Biological Opinion for the California WaterFix. Service File No. 08FBDT00-2016-F-0247. June 23. Sacramento, CA: U.S. Fish and Wildlife Service, San Francisco Bay-Delta Fish and Wildlife Office.
- U.S. Fish and Wildlife Service (USFWS). 2017b. Biological Opinion for the Yolo Flyway Farms Restoration Project (U.S. Army Corps of Engineers File No. SPK-2015-00160). August 24. Sacramento, CA: U.S. Fish and Wildlife Service, San Francisco Bay-Delta Fish and Wildlife Office.
- U. S. Fish and Wildlife Service (USFWS). 2017c. Framework for Assessing Impacts to the Valley Elderberry Longhorn Beetle (*Desmocerus californicus dimorphus*). U. S. Fish and Wildlife Service. Sacramento, California. 28pp.
- U.S. Fish and Wildlife Service (USFWS). 2018. Biological Opinion for the California WaterFix. Service File No. 08FBDT00-2017-F-0042. February 14. Sacramento, CA: U.S. Fish and Wildlife Service, San Francisco Bay-Delta Fish and Wildlife Office.
- U.S. Fish and Wildlife Service (USFWS). 2018. EDSM. Enhanced Delta Smelt Monitoring 2018 Phase 3 Sampling Preliminary Analysis. Draft. November 30. Available: https://www.fws.gov/lodi/juvenile_fish_monitoring_program/jfmp_index.htm Accessed: December 29, 2018.
- U.S. Fish and Wildlife Service (USFWS). 2018. SWG. Summary Report on the Transactions of the Smelt Working Group in Water Year 2018. November. Sacramento, CA: U.S. Fish and Wildlife Service, San Francisco Bay-Delta Fish and Wildlife Office.

- U.S. Fish and Wildlife Service (USFWS). 2018a. Information for Planning and Consultation. Available at: <https://ecos.fws.gov/ipac/>. Accessed February 6, 2019.
- U.S. Fish and Wildlife Service (USFWS). Undated. Draft Habitat Assessment Guidelines & Survey Protocol for the Riparian Brush Rabbit and the Riparian Woodrat. Available at: <https://www.fws.gov/sacramento/es/Survey-Protocol-Guidelines/>.
- U.S. Fish and Wildlife Service (USFWS). Undated. Red Bluff Diversion Dam- Green Sturgeon https://www.fws.gov/redbluff/rbdd_greensturgeon.html. Accessed: September 28, 2018.
- U.S. Fish and Wildlife Service (USFWS) and Hoopa Valley Tribe. 1999. Trinity River Flow Evaluation. Final Report. U.S. Fish and Wildlife Service, Arcata Fish and Wildlife Office, and Hoopa Valley Tribe, U.S. Department of the Interior, Washington, DC.
- Van Eenennaam, J. P., J. Linares-Casenave, X. Deng, and S. I. Doroshov. 2005. Effect of Incubation Temperature on Green Sturgeon Embryos, *Acipenser medirostris*. *Environmental Biology of Fishes* 72(2):145–154.
- Van Eenennaam, J. P., M. A. H. Webb, X. Deng, and S. I. Doroshov. 2001. Artificial Spawning and Larval Rearing of Klamath River Green Sturgeon. *Transactions of the American Fisheries Society* 130:159–165.
- Vincik, R. F. and J. M. Julienne. 2012. Occurrence of delta smelt (*Hypomesus transpacificus*) in the lower Sacramento River near Knights Landing, California. *California Fish and Game* 98(3):171-174. <https://www.wildlife.ca.gov/Publications/Journal>
- Vogel J. and D. Beachamp. 1999. Effects of Light, Prey Size, and Turbidity on Reaction Distances of Lake Trout (*Salvelinus namaycush*) to Salmonid Prey. *Canadian Journal of Fisheries and Aquatic Sciences*. 56(7): 1293-1297.
- Vogel, D. A. and K. R. Marine. 1991. Guide to upper Sacramento Chinook salmon life history. Report to U.S. Bureau of Reclamation, Central Valley Project. CH2M Hill, Inc., Redding, California. 55 pp.
- von Westernhagen, H., D. Volkert, P. Cameron and D. Janssen. 1987. Chlorinated hydrocarbon residues in gonads of marine fish and effects on reproduction. *Sarsia*. 72(3-4).
- Voss, S. D. and W. R. Poytress. 2018. Brood Year 2016 Juvenile Salmonid Production and Passage Indices at Red Bluff Diversion Dam. Prepared for: U.S. Bureau of Reclamation 2016 Annual RBDD Juvenile Fish Monitoring Report. U.S. Fish and Wildlife Service. Red Bluff, California. July.
- Wagner, R. W., M. Stacey, L. R. Brown, and M. Dettinger. 2011. Statistical models of temperature in the Sacramento–San Joaquin Delta under climate-change scenarios and ecological implications. *Estuaries and Coasts* 34(3):544-556.
- Waples, R. S. 1995. Evolutionarily significant units and the conservation of biological diversity under the Endangered Species Act. In: Nielsen JL, editor. *Evolution and the aquatic ecosystem: defining unique units in population conservation*. American Fisheries Society Symposium 17. Bethesda (MD). Ward and Stanford 1983

- Water Forum. 2005. Addendum to the Report Titled Impacts on the Lower American River Salmonids and Recommendations Associated with Folsom Reservoir Operations to Meet Delta Water Quality Objectives and Demands. September.
- WDFW and ODFW. 2001. Washington and Oregon Eulachon Management Plan. Washington Department of Fish and Wildlife, Olympia, WA. WEF 2018.
- Weston, D. P., D. Chen and M. J. Lydy. 2015. Stormwater-related transport of the insecticides bifenthrin, fipronil, imidacloprid and chlorpyrifos into a tidal wetland, San Francisco Bay, California. *Science of the Total Environment*. 527-528: 18-25.
- Weston, D. P., A. M. Asbell, S. A. Lesmeister, S. J. Lydy, M. J. 2014. Urban and agricultural pesticide inputs to a critical habitat for the threatened delta smelt (*Hypomesus transpacificus*). *Environmental Toxicology and Chemistry*. 33:4, pp 920-929.
- Weston, D. P., and M. J. Lydy. 2010. Urban and agricultural sources of pyrethroid insecticides to the Sacramento-San Joaquin Delta of California. *Environ. Sci. Technol.* 44: 1833-1840.
- Weston, D. P., A. M. Asbell, S. A. Lesmeister, S. J. Teh, M. J. Lydy. 2014. Urban and agricultural pesticide inputs to a critical habitat for the threatened delta smelt (*Hypomesus transpacificus*). *Environ. Toxicol. Chem.* 33, 920-929.
- Weston, D. P., D. Schlenk, N. Riar, M. J. Lydy, M. L. Brooks. 2015. Effects of pyrethroid insecticides in urban runoff on Chinook salmon, steelhead trout, and their invertebrate prey. *Environ. Toxicol. Chem.* 34, 649-657.
- Whipple, A. Historical Ecology of the Delta: Habitat characteristics of a fluvial-tidal landscape [Internet]. Sacramento, CA; 2010. <http://www.sfei.org/DeltaHEStudy>
- Wicks, B. J., R. Joensen, Q. Tang, and D. J. Randall. 2002. Swimming and ammonia toxicity in salmonids: the effect of sub lethal ammonia exposure on the swimming performance of coho salmon and the acute toxicity of ammonia in swimming and resting rainbow trout. *Aquatic Toxicology*. 59(1-22): 55-69.
- Wiener JG, Gilmour CC, Krabbenhoft DP. 2003. Mercury strategy for the Bay-Delta ecosystem: a unifying framework for science, adaptive management, and ecological restoration. Final report to the California Bay-Delta Authority. 59 p.
- Wiles, G. J. 2004. Washington state status report for the killer whale. Washington Department of Fish and Wildlife, Olympia, Washington.
- Wilkerson, F. P., R. C. Dugdale, V.E. Hogue, A. Marchi. 2006. Phytoplankton blooms and nitrogen productivity in San Francisco Bay. *Estuaries and Coasts* 29, 401-416.
- Williams, D. F. 1993. Population Censuses of Riparian Brush Rabbits and Riparian Woodrats at Caswell Memorial State Park during January 1993. Lodi, CA: California Department of Parks and Recreation.
- Williams, G. B. Jr. 1893. U.S. Commission of Fish and Fisheries. Commission Report 1889-91. 49 p.
- Williams, G. B. Jr. 1894. U.S. Commission of Fish and Fisheries. Commission Report 1892. Part XVIII. LVII.

- Williams, D. F. 1988. Ecology and management of the riparian brush rabbit in Caswell Memorial State Park. California Dept. Parks and Recreation, Lodi, Final Rep. Interagency Agreement 4-305-6 108, 38 pp.
- Williams, D. F. 1988. Ecology and management of the riparian brush rabbit in Caswell Memorial State Park. California Dept. Parks and Recreation, Lodi, Final Rep. Interagency Agreement 4-305-6 108, 38 pp.
- Williams, D. F. 1986. Mammalian Species of Special Concern in California. Administrative Report 86-1. California Department of Fish and Game, Wildlife Management Division.
- Williams, D. F. 1993. Population censuses of riparian brush rabbits and riparian woodrats at Caswell Memorial State Park during January 1993. California Dept. Parks and Recreation, Lodi, Final Rep., 15 pp.
- Williams, D. F., L. P. Hamilton, M. R. Lloyd, E. Vincent, C. Lee, A. Edmondson, J. J. Youngblom, K. Gilardi, and P. A. Kelly. 2002. Controlled Propagation and Translocation of Riparian Brush Rabbits: Annual Report for 2002. Report to the Bureau of Reclamation, U.S. Fish and Wildlife Service, and California Department of Fish and Game, Sacramento, CA.
- Williams, D. F., P. A. Kelly and L. P. Hamilton. 2002. *Controlled propagation and reintroduction plan for the riparian brush rabbit (Sylvilagus bachmani riparius)*. Endangered Species Recovery Program, California State University, Stanislaus. 75 pp.
- Williams, J. G., 2001. Chinook salmon in the lower American River, California's largest urban stream. Fish Bulletin, 179(2), pp.1-38.
- Williams, J. G., 2006. Central Valley salmon: a perspective on Chinook and steelhead in the Central Valley of California. San Francisco Estuary and Watershed Science, 4(3).
- Williams, R., A. W. Trites, D. E. Bain, 2002. Behavioural responses of killer whales to (Orcinus orca) whale-watching traffic: Opportunistic observations and experimental approaches. Journal of Zoology. 256: 255-270.
- Williams, T. H., B. C. Spence, D. A. Boughton, R. C. Johnson, L. Crozier, N. Mantua, M. O'Farrell, and S. T. Lindley. 2016. Viability assessment for Pacific salmon and steelhead listed under the Endangered Species Act: Southwest. 2 February 2016 Report to National Marine Fisheries Service – West Coast Region from Southwest Fisheries Science Center, Fisheries Ecology Division 110 Shaffer Road, Santa Cruz, California 95060
- Williamson, R., G. Fogg, M. Rains, and T. Harter. 2005. Hydrology of Vernal Pools at Three Sites, Southern Sacramento Valley. Final technical report. Sacramento, CA: California Department of Transportation.
- Wilson, A. E., W. A. Wilson, and M. E. Hay. 2006. Intraspecific Variation in Growth and Morphology of the Bloom-Forming Cyanobacterium *Microcystis aeruginosa*. Applied and Environmental Microbiology 72(11):7386–7389.
- Windell, S., P. L. Brandes, J. L. Conrad, J. W. Ferguson, P. A. L. Goertler, B. N. Harvey, J. Heublein, J. A. Israel, D. W. Kratville, J. E. Kirsch, R. W. Perry, J. Pisciotto, W. R. Poytress, K. Reece, B. G.

- Swart, and R. C. Johnson. 2017. Scientific framework for assessing factors influencing endangered Sacramento River winter-run Chinook salmon (*Oncorhynchus tshawytscha*) across the life cycle. NOAA Technical Memorandum NMFS-SWFSC-586. NOAA National Marine Fisheries Service, Southwest Fisheries Science Center Fisheries Ecology Division Santa Cruz, CA.
- Winder, M., A. D. Jassby, and R. Mac Nally. 2011. Synergies between climate anomalies and hydrological modifications facilitate estuarine biotic invasions. *Ecology Letters* 14(8): 749-757. DOI: 10.1111/j.1461-0248.2011.011635.x.
- Winder, M., and A. D. Jassby. 2011. Shifts in Zooplankton Community Structure: Implications for Food Web Processes in the Upper San Francisco Estuary. *Estuaries and Coasts* 34:675–690.
- Winemiller, K. O. and K. A. Rose. 1992. Patterns of life-history diversification in North American fishes: implications for population regulation. *Canadian Journal of Fisheries and Aquatic Sciences* 49:2196-2218.
- Wood Rogers. 2018. Bulkhead Alternatives Analysis Report. Prepared for the City of West Sacramento. Available at <https://www.cityofwestsacramento.org/Home/ShowDocument?id=8011.WRA>
- Environmental. 2005. California Tiger Salamander Site Assessment. Staples Ranch Pleasanton, Alameda County California. October. Prepared for Davis Environmental Consulting, LLC. Davis, CA.
- Wright, S. A., and D. H. Schoellhamer. 2004. Trends in the Sediment Yield of the Sacramento River, 1957–2001. *San Francisco Estuary & Watershed Science* 2(2). Available at: <http://escholarship.org/uc/item/891144f4>.
- Wright, S. A., and D. H. Schoellhamer. 2005. Estimating sediment budgets at the interface between rivers and estuaries with application to the Sacramento-San Joaquin River Delta. *Water Resources Research* 41(9):W09428.
- Wylie, G. D., and M. L. Casazza. 2000a. Investigations of the giant garter snakes in the Natomas Basin: 1998-1999. "Unpublished report. U.S. Geological Survey, Biological Resources Division, Dixon Field Station, Dixon, California. March 2000. 20 pp.
- Wylie, G. D., and M. L. Casazza. 2000b. Investigations of giant garter snakes in the Natomas Basin: 2000 field season. Unpublished report. U.S. Geological Survey, Biological Resources Division, Dixon Field Station, Dixon, California.
- Wylie, G. D., M. L. Casazza, and N. M. Carpenter. 2002. Monitoring giant garter snakes at Colusa National Wildlife Refuge: 2001 progress report. Unpublished report. U.S. Geological Survey, Biological Resources Division, Dixon Field Station, Dixon, California. April 2002. 10 pp.
- Wyman, W. T., M. J. Thomas, R. R. McDonald, A. R. Hearn, R. D. Battleson, E. D. Chapman, P. Kinzel, J. T. Minear, E. A. Mora, J. M. Nelson, M. D. Pagel, and A. P. Klimley. 2017. Fine-scale habitat selection of Green Sturgeon (*Acipenser medirostris*) within three spawning locations in the Sacramento River, California. *Canadian Journal of Fish and Aquatic Sciences*. 1-13.
- Wyman, M. T., M. J. Thomas, R. R. McDonald, A. R. Hearn, R. D. Battleson, E. D. Chapman, P. Kinzel, J. T. Minear, E. A. Mora, J. M. Nelson, M. D. Pagel, and A. P. Klimley. 2018. Fine-Scale Habitat

- Selection of Green Sturgeon (*Acipenser medirostris*) within Three Spawning Locations in the Sacramento River, California. *Canadian Journal of Fisheries and Aquatic Sciences* 75(5):779-791.
- Yang, M. S., K. Dodd, R. Hibpshman, and A. Whitehouse. 2006. Food habits of groundfishes in the Gulf of Alaska in 1999 and 2001. NOAA Technical Memorandum NMFS-AFSC-164.
- Yates, D., H. Galbraith, D. Purkey, A. Huber-Lee, J. Sieber, J. West, S. Herrod-Julius, B. Joyce. 2008. Climate warming, water storage, and Chinook salmon in California's Sacramento Valley. *Clim Change* 91:335-350.
- Ylitalo, G. M., C. O. Matkin, J. Buzitis, M. Krahan, L. L. Jones, R. Rowles, and J. E. Stein. 2001. Influence of life-history parameters on organochlorine concentrations in free-ranging killer whales (*Orcinus orca*) from Prince William Sound, AK. *Science of the Total Environment* 281:183-203.
- Yoshiyama R. M., E. R. Gerstung, F. W. Fisher, and P. B. Moyle. Historic and present distribution of chinook salmon in the central valley drainage of California. In R. L. Brown, editor, *Fish Bulletin 179: Contributions to the biology of Central Valley salmonids.*, volume 1, pages 71- 176. California Department of Fish and Game, Sacramento, CA, 2001.
- Yoshiyama, R. M., E. R. Gerstung, F. W. Fisher, and P. B. Moyle. 1996. Historical and Present Distribution of Chinook Salmon in the Central Valley Drainage of California. *Sierra Nevada Ecosystem Project: Final Report to Congress, Vol. III, Assessments, Commissioned Reports, and Background Information.* University of California, Davis, Centers for Water and Wildland Resources.
- Yoshiyama, R. M., F. W. Fisher, P. B. Moyle. 1998. Historical Abundance and Decline of Chinook Salmon in the Central Valley Region of California. *North American Journal of Fisheries Management* 18:487-521.
- Zeug, S. and Cavallo, B. 2014. Controls on the Entrainment of Juvenile Chinook Salmon (*Oncorhynchus tshawytscha*) into Large Water Diversions and Estimates of Population-Level Loss. *Plos One*. Available at <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0101479>.
- Zeug, S. C., K. Sellheim, C. Watry, J. D. Wikert, J. Merz. 2014. Response of juvenile Chinook salmon to managed flow: Lessons learned from a population at the southern extent of their range in North America *Fisheries Management and Ecology*. 21: 155-168. DOI: 10.1111/fme.12063.
- Zhou, Y. 2018. Assessing the Impacts of Suisun Marsh Salinity Control Gates' Summer Operation on Delta Water Quality. Oral presentation at 10th Biennial Bay-Delta Science Conference, Sacramento, CA, September 11, 2018.
- Zimmerman, C. E., G. W. Edwards, and K. Perry. 2009. Maternal Origin and Migratory History of Steelhead and Rainbow Trout Captured in Rivers of the Central Valley, California. *Transactions of the American Fisheries Society* 138(2):280-291.

8.2 Personal Communications

Poytress, B. 2017. Personal Communication. January 17, 2018