

Quarterly Journal Article search : July-September 2022
Columbia Basin Fish & Wildlife Library

Beacham, T. D. Jonsen, K., Sutherland, B. J. G., Ramshaw, B. and E. B. Rondeau. 2022. Parentage-based tagging and genetic stock identification applied to assessment of mixed-stock fisheries and hatchery broodstocks for Chinook salmon in British Columbia, Canada. *Fisheries Research* 253:106369.

<https://doi.org/10.1016/j.fishres.2022.106369>

Species: Chinook salmon

Location: British Columbia

Other: Genetic stock identification, parentage-based tagging

Bellmore, J. R., J. B. Fellman, E. Hood, M. R. Dunkle, and R. T. Edwards. 2022. A melting cryosphere constrains fish growth by synchronizing the seasonal phenology of river food webs. 2022. *Global Change Biology* 28(16):4807-4818. <https://doi.org/10.1111/gcb.16273>.

Species: Pacific Salmon

Location: Juneau, AK

Other: Climate change, food webs

Brownscombe, J. W. L. P. Griffin, J. L. Brooks, A. J. Danylchuk, S. J. Cooke, and J. D. Midwood. 2022. Applications of telemetry to fish habitat science and management. *Canadian Journal of Fisheries and Aquatic Sciences* 79(8):1347-1359. <https://doi.org/10.1139/cjfas-2021-0101>

Species: n/a

Location: n/a

Other: Habitat measurement and assessment

Chalifour, L., C. Holt, A. E. Camaclang, M. J. Bradford, R. Dixon, R. J. R. Finn, V. Hemming, S. G. Hinch, C. D. Levings, M. MacDuffee, D. J. H. Nishimura, M. Pearson, J. D. Reynolds, D. C. Scott, U. Spremberg, S. Stark, J. Stevens, J. K. Baum, and T. G. Martin. 2022. Identifying a pathway towards recovery for depleted wild Pacific salmon populations in a large watershed under multiple stressors. *Journal of Applied Ecology* 59(9):2212– 2226. <https://doi.org/10.1111/1365-2664.14239>

Species: Pacific salmon

Location: Fraser River, BC, Canada

Other: Priority Threat Management, fisheries co-management, fisheries management strategies

Courtney, M. B., A. J. Flanigan, M. Hostetter, and A. C. Seitz. 2022. Characterizing sockeye salmon smolt interactions with a hydrokinetic turbine in the Kvichak River, Alaska. *North American Journal of Fisheries Management* 42(4):1054-1065. <https://doi.org/10.1002/nafm.10806>

Species: Sockeye salmon

Location: Kvichak River, AK

Other: Turbine passage

Davis, M. J., I. Woo, C. S. Ellings, S. Hodgson, D. A. Beauchamp, G. Nakai, and S. E. W. De La Cruz. 2022. A climate-mediated shift in the estuarine habitat mosaic limits prey availability and reduces nursery quality for juvenile salmon. *Estuaries and Coasts* 45:1445–1464. <https://doi.org/10.1007/s12237-021-01003-3>

Species: Pacific salmon

Location: Nisqually River Delta, WA

Other: Climate change, estuarine habitat

Dittman, A. H., C. J. Cunningham, and T. P. Quinn. Can unique amino acid profiles guide adult salmon to natal streams? 2022. A comparison of streams sampled prior to and after the arrival of adult Pacific salmon. *Hydrobiologia* 849:3501–3513. <https://doi.org/10.1007/s10750-022-04948-z>

Species: Sockeye salmon

Location: Alaska

Other: Homing, olfactory information

Elmer, L. K., Moulton, D. L., Reid, A. J., Farrell, A. P., Patterson, D. A., Hendriks, B., Cooke, S. J., and S. G. Hinch. 2022. Thermal selection and delayed migration by adult sockeye salmon (*Oncorhynchus nerka*) following escape from simulated in-river fisheries capture. *Fisheries Research* 251:106321.

<https://doi.org/10.1016/j.fishres.2022.106321>

Species: Sockeye salmon

Location: British Columbia

Other: Thermoregulation, migration delay

Evans, A. F., Q. Payton, N. J. Hostetter, K. Colis, and B. M. Cramer. 2022. Cumulative effects of piscivorous colonial waterbirds on juvenile salmonids: a multi predator-prey species evaluation. *PLoS ONE* 17(8):e0272875. <https://doi.org/10.1371/journal.pone.0272875>

Species: Steelhead, Chinook, sockeye

Location: Columbia River basin

Other: Avian predation

FitzGerald, A. M., D. A. Boughton, J. Fuller, S. N. John, B. T. Martin, L. R. Harrison, and N. J. Mantua. 2022. Physical and biological constraints on the capacity for life-history expression of anadromous salmonids: an Eel River, California, case study. *Canadian Journal of Fisheries and Aquatic Sciences* 79(7):1023-1041. <https://doi.org/10.1139/cjfas-2021-0229>

Species: Steelhead, Chinook salmon

Location: Eel River, CA

Other: Habitat suitability and capacity

French, B. F., Baldwin, D. H., Cameron, J., Prat, J., King, K., Davis, J. W., McIntyre, J. K. and N. L. Scholz. 2022. Urban roadway runoff is lethal to juvenile coho, steelhead, and chinook salmonids, but not congeneric sockeye. *Environmental Science & Technology Letters* 9(9):733-738.

<http://10.1021/acs.estlett.2c00467>

Species: Coho, steelhead, chinook, sockeye

Location: Seattle, WA

Other: Urban stormwater runoff toxicity

Fuller, M. R., P. Leinenbach, N. E. Detenbeck, , R. Labiosa, and D. J. Isaak. 2022. Riparian vegetation shade restoration and loss effects on recent and future stream temperatures. *Restoration Ecology* 30(7): e13626. <https://doi.org/10.1111/rec.13626>

Species: n/a

Location: Columbia River

Other: Climate change modeling, cold water habitat

Fullerton, A.H., N. Sun, M. J. Baerwalde, B. L. Hawkins, and H. Yan. 2022. Mechanistic simulations suggest riparian restoration can partly counteract climate impacts to juvenile salmon. *Journal of the American Water Resources Association*, 58(4):525-546. <https://doi.org/10.1111/1752-1688.13011>

Species: Chinook salmon

Location: Snoqualmie River, WA

Other: Climate adaptation, riparian restoration

Homel, K., and J. D. Alexander. 2022. Spatiotemporal distribution of *Ceratonova shasta* in the lower Columbia River Basin and effects of exposure on survival of juvenile chum salmon *Oncorhynchus keta*. *PLoS ONE* 17(8):e0273438. <https://doi.org/10.1371/journal.pone.0273438>

Species: Chum salmon

Location: Columbia River basin

Other: Parasite related mortality, spatiotemporal distributions

Gregory, J. S., B. L. Gamett, C. L. Wood, and R. W. Van Kirk. 2022. Abundance, restoration, and transport of unanchored large wood in a small river in central Idaho. *North American Journal of Fisheries Management* 42(4):1041-1053. <https://doi.org/10.1002/nafm.10796>

Species: Multiple

Location: Yankee Fork, ID (tributary of the Salmon River)

Other: Large woody debris, habitat improvement

Hardy, R. S., T. J. Ross, K. N. McDonnell, M. C. Quist, C. Holderman, and B. S. Stevens. 2022. Nutrient restoration of a large, impounded, ultra-oligotrophic Western river to recover declining native fishes. *North American Journal of Fisheries Management* 42(4):977-993. <https://doi.org/10.1002/nafm.10792>

Species: Multiple

Location: Kootenai River, ID

Other: Nutrient addition to rivers

Hostetter, N. J., Q. Payton, D. D. Roby, K. Collis, and A. F. Evans. 2022. Predation probabilities and functional responses: how piscivorous waterbirds respond to pulses in fish abundance. *Ecosphere* 13(9):e4220. <https://doi.org/10.1002/ecs2.4220>

Species: Steelhead

Location: Columbia River basin

Other: Avian predation, waterbird behavior

Kaylor, M. J., J. B. Armstrong, J. T. Lemanski, C. Justice, and S. M. White. 2022. Riverscape heterogeneity in estimated Chinook salmon emergence phenology and implications for size and growth. *Ecosphere* 13(7):e4160. <https://doi.org/10.1002/ecs2.4160>

Species: Chinook salmon

Locations: Grande Ronde River basin; John Day River

Other: Thermal and hydrologic heterogeneity, emergence phenology

Kennedy, B. M., M. J. Smith, J. S. A. Holmes, R. P. Root, C. T. Smith, and D. P. Peterson. 2022. Size and distribution of parr produced from natural- and hatchery-origin steelhead spawning naturally in a small Pacific Northwest coastal stream. *Transactions of the American Fisheries Society* 151(4):507-524. <https://doi.org/10.1002/tafs.10366>

Species: Steelhead

Location: Abernathy Creek, WA

Other: Hatchery fish fitness

Lynch, A. J., B. J. E. Myers, J. P. Wong, C. Chu, R. W. Tingley, J. A. Falke, T. J. Kwak, C. P. Paukert, and T. J. Krabbenhoft. 2022. Reducing uncertainty in climate change responses of inland fishes: a decision-path approach. *Conservation Science and Practice*, 4(7):e12724. <https://doi.org/10.1111/csp2.12724>

Species: Various

Location: n/a

Other: Fish and Climate Change database

Lynch, A. J., F. J. Rahel, D. Limpinsel, S. A. Sethi, A. C. Engman, D. J. Lawrence, K. E. Mills, W. Morrison, J. O. Peterson, and M. T. Porath. 2022. Ecological and social strategies for managing fisheries using the Resist-Accept-Direct (RAD) framework. *Fisheries Management and Ecology* 29(4):329– 345.

<https://doi.org/10.1111/fme.12545>

Species: Various

Locations: Various

Other: Climate adaptation, fisheries management

Monnet, G., J. S. Rosenfeld, and J. G. Richards. 2022. Divergence in digestive and metabolic strategies matches habitat differentiation in juvenile salmonids. *Ecology and Evolution* 12(9): e9280.

<https://doi.org/10.1002/ece3.9280>

Species: Steelhead and coho

Location: Near Vancouver, BC

Other: Aerobic budget, digestive physiology

Murdoch, A. R., K. See, and B. L. Truscott. 2022. Abundance and migration success of overshoot steelhead in the upper Columbia River. *North American Journal of Fisheries Management* 42(4):1066-1080. <https://doi.org/10.1002/nafm.10800>

Species: Steelhead

Location: Upper Columbia River

Other: Downstream migration, dam passage

Naman, S. M., S. M. White, J. R. Bellmore, P. A. McHugh, M. J. Kaylor, C. V. Baxter, R. J. Danehy, R. J. Naiman, and A. L. Puls. 2022. Food web perspectives and methods for riverine fish conservation. *WIREs Water* 9(4):e1590. <https://doi.org/10.1002/wat2.1590>

Species: Multiple

Locations: Multiple

Other: Food web analysis, fisheries conservation

Ovando, D., C. Cunningham, P. Kuriyama, C. Boatright, and R. Hilborn. Improving forecasts of sockeye salmon (*Oncorhynchus nerka*) with parametric and nonparametric models. 2022. *Canadian Journal of Fisheries and Aquatic Sciences* 79(8):1198-1210. <https://doi.org/10.1139/cjfas-2021-0287>

Species: Sockeye salmon

Location: Bristol Bay, AK

Other: Run forecasting and modeling

Ransbury, S. R., S. Maclean, C. J. Schwanke, T. Hansen, and J. W. Savereide. 2022. Modeling Chinook salmon run timing in the Gulkana River, Alaska using environmental indices. *Transactions of the American Fisheries Society* 151(5):559-570. <https://doi.org/10.1002/tafs.10373>

Species: Chinook salmon
Location: Gulkana River, AK
Other: Run timing, water temperature

Riggers, B. L. and M. K Jones. 2022. Paradigm shift: applying capture–recapture techniques to electronic licensing system data to estimate Chinook salmon harvest. *North American Journal of Fisheries Management* 42(4):815-827. <https://doi.org/10.1002/nafm.10778>

Species: Chinook salmon
Location: Oregon Coast
Other: Creel surveys, harvest estimates

Steele, C. A., T. A. Delomas, M. R. Campbell, and J. H. Powell. 2022. Single-parentage assignments reveal negative-assortative mating in an endangered salmonid. *Ecology and Evolution*, 12(4):e8846. <https://doi.org/10.1002/ece3.8846>

Species: Sockeye salmon
Location: Redfish Lake, ID
Other: Mating behavior, parentage assignment

Trushenski, J. T., C. Monson, E. Casadei, J. D. Bowker, and S. Nepper. 2022. Embryonic metabolic rate does not predict subsequent growth performance or thermal tolerance of juvenile rainbow trout but may be related to antimicrobial peptide expression. *North American Journal of Fisheries Management* 42(4):345-353. <https://doi.org/10.1002/naaq.10245>

Species: Steelhead
Location: n/a
Other: Embryonic metabolic rate, antimicrobial peptide expression

Warren, D. R., D. A. Roon, A. G. Swartz, and K. D. Bladon. 2022. Loss of riparian forests from wildfire led to increased stream temperatures in summer, yet salmonid fish persisted. *Ecosphere* 13(9):e4233. <https://doi.org/10.1002/ecs2.4233>

Species: Cutthroat trout, steelhead
Location: Hinkle Creek watershed, OR
Other: Thermal tolerance, wildfire impacts on fish

Weitkamp, L. A., B. R. Beckman, D. M. Van Doornik, A. Munguia, M. Hunsicker, and M. Journey. 2022. Life in the fast lane: feeding and growth of juvenile steelhead and Chinook salmon in main-stem habitats of the Columbia River estuary. *Transactions of the American Fisheries Society* 151(5):587-610. <https://doi.org/10.1002/tafs.10376>

Species: Steelhead, Chinook salmon
Locations: Lower Columbia River and Columbia River estuary
Other: Habitat functions, feeding and growth