

Quarterly Journal Article search: January-March 2024
Columbia Basin Fish & Wildlife Library

Arbeider, M., V. Pemberton-Renaud, E. E. Hodgson, and J. W. Moore. 2024. The estuarine growth and residency of Juvenile Pacific Salmon in North America: a compilation of empirical data. *Canadian Journal of Fisheries and Aquatic Sciences* 81(3):253–267. <https://doi.org/10.1139/cjfas-2023-0225>

Species: Pacific salmon

Location: Pacific Coast of North America

Other keywords: Estuary ecology, life history variation

Baetscher, D. S., M. R. Pochardt, P. D. Barry, P. D., and W. A. Larson. 2024. Tide impacts the dispersion of eDNA from nearshore net pens in a dynamic high-latitude marine environment. *Environmental DNA* 6(2):e533. <https://doi.org/10.1002/edn3.533>

Species: Chum salmon

Location: Southeast Alaska

Other keywords: eDNA signal strength, qPCR

Benjamin, J. R., J. B. Dunham, N. P. Banish, D. K. Hering, and Z. Tiemann. 2024. Co-production of models to evaluate conservation alternatives for a threatened fish in a rapidly changing landscape. *Aquatic Sciences* 86:15. <https://doi.org/10.1007/s00027-023-01030-1>

Species: Bull Trout

Location: Klamath River Basin, OR and CA

Other keywords: Artificial propagation, translocation, reintroduction

Barth, J. A., S. D. Pierce, B. R. Carter, F. Chan, A. Y. Erofeev, J. L. Fisher, R. A. Feely, K. C. Jacobson, A. A. Keller, C. A. Morgan, J. E. Pohl, L. K. Rasmuson, and V. Simon. 2024. Widespread and increasing near-bottom hypoxia in the coastal ocean off the United States Pacific Northwest. *Scientific Reports* 14:3798. <https://doi.org/10.1038/s41598-024-54476-0>

Species: n/a

Location: Pacific Coast of North America

Other keywords: Hypoxia, low-oxygen waters

Bilby, R. E., K. P. Currens, K. L. Fresh, D. B. Booth, R. R. Fuerstenberg, and G. L. Lucchetti. 2024. Why aren't salmon responding to habitat restoration in the Pacific Northwest? *Fisheries* 49(1):16-27.

<https://doi.org/10.1002/fsh.10991>

Species: Pacific Salmon

Location: Pacific Northwest, USA

Other keywords: Habitat restoration strategies

Bisson, P., T. Hillman, T. Beechie, and G. Pess. 2024. Managing expectations from intensively monitored watershed studies. *Fisheries* 49(1):8-15. <https://doi.org/10.1002/fsh.10992>

Species: Pacific salmon and steelhead

Location: Pacific Northwest, USA

Other keywords: IMW study design

Breault, P. W., M. Wetklo, A. R. Langston, R. J. Zemplak, R. E. Withler, and J. M. Shrimpton. 2024. Genetic population structure of introduced and native lineages of kokanee in a large impounded watershed. *Transactions of the American Fisheries Society* 153(1):55-73. <https://doi.org/10.1002/tafs.10448>

Species: Kokanee

Location: Williston watershed, BC

Other keywords: Introgressive hybridization

Cordoleani, F., C. C. Phillis, A. M. Sturrock, M. Willmes, G. Whitman, E. Holmes, P. K. Weber, C. Jeffres, and R. C. Johnson. 2024. Restoring freshwater habitat mosaics to promote resilience of vulnerable salmon populations. *Ecosphere* 15(3):e4803. <https://doi.org/10.1002/ecs2.4803>

Species: Chinook salmon

Location: California Central Valley (Butte, Mill, and Deer Creeks)

Other keywords: Portfolio effect, climate change impacts

Collis, K., D. D. Roby, A. F. Evans, T. J. Lawes, and D. E. Lyons. 2024. Caspian tern management to increase survival of juvenile salmonids in the Columbia River basin: progress and adaptive management considerations. *Fisheries* 49(2):71-84. <https://doi.org/10.1002/fsh.11012>

Species: Pacific salmon and steelhead

Location: Columbia River basin

Other keywords: Critical uncertainties

Correia, M., S. Alexis, and A. Dulic. 2024. Bringing the salmon home: a study of cross-cultural collaboration in the Syilx Okanagan Territory of British Columbia. *Ecology and Society* 29(1):15. <https://doi.org/10.5751/ES-14831-290115>

Species: Sockeye salmon

Location: British Columbia

Other keywords: Traditional ecological knowledge, co-management, recovery planning

Couture F., V. Christensen, and C. Walters. 2024 The combined effects of predation, fishing, and ocean productivity on salmon species targeted by marine mammals in the northeast Pacific. *PLoS ONE* 19(3): e0296358. <https://doi.org/10.1371/journal.pone.0296358>

Species: Various salmonids

Location: Pacific Coast of North America

Other keywords: Pinniped predation

David, A. T., C. N. Gregersen, J. S. Kubo, D. W. Lantz, and J. W. Bower. 2024. Juvenile Pacific salmonid habitat use in two Puget Sound lowland rivers. *Transactions of the American Fisheries Society* 153(2):216-233. <https://doi.org/10.1002/tafs.10457>

Species: Chinook and coho

Location: Snoqualime and Green Rivers, Washington

Other keywords: Edge habitats, bank armoring

Dayan, D. I., S. Mazur, L. J. Green, A. J. Wells, M. A. Johnson, D. J. Van Dyke, P. A. Samarin, R. D. Battleson, and K. G. O'Malley. 2024. Genetic diversity within late-summer run and half-pounder steelhead (*Oncorhynchus mykiss*) in the Rogue River, Oregon. *Conservation Genetics* 25:245-257. <https://doi.org/10.1007/s10592-023-01563-w>

Species: Steelhead
Location: Rogue River, Oregon
Other keywords: Migration timing, population genetics

Dennert, A. M., E. Elle, and J. D. Reynolds. 2024. Nutrients from spawning salmon influence leaf area, tissue density, and nitrogen-15 in riparian plant leaves. *Ecology and Evolution* 14(2):e11041. <https://doi.org/10.1002/ece3.11041>

Species: Pacific salmon
Location: British Columbia Coast
Other keywords: Nitrogen transport, nutrient dynamics, riparian plants

Ebel, S. A., and B. Ortman. 2024. How sociopolitical histories and lifeways impact the formation of 'good governance' in the restoration of anadromous fish in the Columbia River Basin. *Society & Natural Resources*:1–20. <https://doi.org/10.1080/08941920.2024.2310239>

Species: Pacific salmon
Location: Columbia River Basin
Other keywords: Environmental governance, management practices

Elmstrom, E. J., G. W. Holtgrieve, M. D. Scheuerell, A. J. Schauer, and K. Leazer. 2024. Climate and landform interact to control the source and transport of nitrate in Pacific Northwest Rivers. *Communications Earth & Environment* 5:90. <https://doi.org/10.1038/s43247-024-01235-8>

Species: n/a
Location: Puget Sound Basin
Other keywords: Nitrogen transport, nutrient dynamics, climate change impact

Freshwater, C., S. C. Anderson, D. D. Huff, J. M. Smith, D. Jackson, B. Hendriks, S. G. Hinch, S. Johnston, A. W. Trites, and J. King. 2024. Chinook salmon depth distributions on the continental shelf are shaped by interactions between location, season, and individual condition. *Movement Ecology* 12:21. <https://doi.org/10.1186/s40462-024-00464-y>

Species: Chinook salmon
Location: Northeastern Pacific Ocean
Other keywords: Spatial distribution, bathymetric depth, ecological interactions

Glassic, H. C., D. D. Chagaris, C. S. Guy, L. M. Tronstad, D. R. Lujan, M. A. Briggs, L. K. Albertson, T. O. Brenden, T. E. Walsworth, and T. M. Koel. 2024. Yellowstone cutthroat trout recovery in Yellowstone Lake: complex interactions among invasive species suppression, disease, and climate change. *Fisheries* 49(2):55-70. <https://doi.org/10.1002/fsh.10998>

Species: Yellowstone cutthroat trout
Location: Yellowstone Lake
Other keywords: Conservation benchmarks

Goetz, L. C., H. Nuetzel, D. L. J. Vendrami, A. K. Beulke, E. C. Anderson, J. C. Garza, and D. E. Pearse. 2024. Genetic parentage reveals the (un)natural history of Central Valley hatchery steelhead. *Evolutionary Applications* 17(3):e13681. <https://doi.org/10.1111/eva.13681>

Species: Steelhead
Location: California Central Valley
Other keywords: Parentage-based tagging, life history traits

Hargrove, J. S., T. A. Delomas, J. H. Powell, J. E. Hess, S. R. Narum, and M. R. Campbell. 2024. Efficient population representation with more genetic markers increases performance of a steelhead (*Oncorhynchus mykiss*) genetic stock identification baseline. *Evolutionary Applications* 17(2):e13610. <https://doi.org/10.1111/eva.13610>

Species: Steelhead

Location: Snake River Basin

Other keywords: Genetic baselines, microhaplotypes

Harris, J. E., B. J. Clemens, J. M. Helstab, P. Burns, M. R. Blanchard, J. J. Skalicky, C. Mayes, and L. Bodiford. 2024. Spatial patterns in occupancy and density of larval lampreys in freshwater habitats restored to a stage 0 condition. *River Research and Applications* 40(3):394-410.

<https://doi.org/10.1002/rra.4232>

Species: Pacific lamprey, Western River lamprey

Location: Oregon

Other keywords: Habitat restoration impacts, population density

Hess, J. E., B. M. Deacy, M. W. Rub, D. M. Van Doornik, J. M. Whiteaker, J. K. Fryer, and S. R. Narum. 2024. Visual and genetic stock identification of a test fishery to forecast Columbia River spring Chinook salmon stocks 2 weeks into the future. *Evolutionary Applications* 17(3): e13667.

<https://doi.org/10.1111/eva.13667>

Species: Chinook

Location: Lower Columbia River basin

Other keywords: Population genetics – empirical, run size prediction

Holbert, S., K. Colbourne, A. T. Fisk, P. S. Ross, M. MacDuffee, F. A. P. C. Gobas, and T. M. Brown. 2024. Polychlorinated biphenyl and polybrominated diphenyl ether profiles vary with feeding ecology and marine rearing distribution among 10 Chinook salmon (*Oncorhynchus tshawytscha*) stocks in the North Pacific Ocean. *Environmental Research* 241:117476

<https://doi.org/10.1016/j.envres.2023.117476>

Species: Chinook salmon

Location: various

Other keywords: Feeding ecology, contaminants

Horn, R. L., H. M. Nuetzel, B. Johnson, C. Kamphaus, J. Lovrak, K. Mott, T. Newsome, and S. R. Narum. 2024. Utility of parentage-based tagging for monitoring coho salmon *Oncorhynchus kisutch* in the interior Columbia River basin. *Evolutionary Applications* 17(2):e13607.

<https://doi.org/10.1111/eva.13607>

Species: Coho salmon

Location: Columbia River Basin

Other keywords: Parentage-based tagging, genetic markers

Howe, N. S., M. C. Hale, C. D. Waters, S. M. Schaal, K. R. Shedd, and W. A. Larson. 2024. Genomic evidence for domestication selection in three hatchery populations of Chinook salmon, *Oncorhynchus tshawytscha*. *Evolutionary Applications*, 17(2):e13656. <https://doi.org/10.1111/eva.13656>

Species: Chinook salmon

Location: Southeast Alaska

Other keywords: Genetic stock identification, genetic markers

Hsu, B., and C. Habicht. 2024. Harnessing the power of regional baselines for broad-scale genetic stock identification: a multistage, integrated, and cost-effective approach. *Evolutionary Applications*, 17(2): e13621. <https://doi.org/10.1111/eva.13621>

Species: Chinook salmon

Location: North Bering Sea, Alaska

Other keywords: Bayesian hierarchical modeling, mixed-stock analysis

Iacarella, J. C., and J. D. Weller. 2024. Predicting favourable streams for anadromous salmon spawning and natal rearing under climate change. *Canadian Journal of Fisheries and Aquatic Sciences* 81(1):1-13. <https://doi.org/10.1139/cjfas-2023-0096>

Species: Pacific salmon

Location: Pacific Coast of North America

Other keywords: Species distribution models, boosted regression trees

Jacobs, G. R., R. F. Thurow, C. E. Petrosky, C. W. Osenberg, and S. J. Wenger. 2024. Life-cycle modeling reveals high recovery potential of at-risk wild Chinook salmon via improved migrant survival. *Canadian Journal of Fisheries and Aquatic Sciences* 81(3):297-310. <https://doi.org/10.1139/cjfas-2023-0167>

Species: Chinook salmon

Location: Salmon River, ID

Other keywords: Spatial distribution, natal productivity

Kock, T. J., S. D. Evans, R. W. Perry, P. A. Monk, M. S. Porter, A. C. Hansen, and A. C. Pope. 2024. Survival implications of diversion entrainment for outmigrating juvenile chinook salmon (*Oncorhynchus tshawytscha*) and steelhead (*O. mykiss*). *Transactions of the American Fisheries Society* 153(2):200-215. <https://doi.org/10.1002/tafs.10456>

Species: Chinook salmon, steelhead

Location: Yakima River, WA

Other keywords: Canal entrainment, diversion dams

Kusnierz, P. C., K. A. Bouwens, and A. L. Ransom. 2024. Predicting the likelihood of gas bubble trauma in fishes exposed to elevated total dissolved gas in the lower Clark Fork River, Idaho. *Transactions of the American Fisheries Society* 153(1):39-54. <https://doi.org/10.1002/tafs.10445>

Species: Various

Location: Lower Clark Fork River, ID

Other keywords: Species-specific susceptibility, logistic regression

Li, H., H. Yu, X. Zhang, W. Huang, C. Zhang, C. Wang, Q. Gao, and S. Dong. 2024. Temperature acclimation improves high temperature tolerance of rainbow trout (*Oncorhynchus mykiss*) by improving mitochondrial quality and inhibiting apoptosis in liver. *Science of The Total Environment* 912:169452. <https://doi.org/10.1016/j.scitotenv.2023.169452>

Species: Rainbow trout

Location: n/a

Other keywords: Temperature acclimation, climate change impacts

Litzow, M. A., M. J. Malick, T. Kristiansen, B. M. Connors, and G. T. Ruggerone. 2024. Climate attribution time series track the evolution of human influence on North Pacific sea surface temperature. *Environmental Research Letters* 19(1):014014. <https://doi.org/10.1088/1748-9326/ad0c88>

Species: n/a

Location: North Pacific Ocean

Other keywords: Sea surface temperature, climate change impacts, human impacts

Landis, W. G., C. J. Mitchell, J. D. Hader, R. Nathan, and E. E. Sharpe. 2024. Incorporation of climate change into a multiple stressor risk assessment for the Chinook salmon (*Oncorhynchus tshawytscha*) population in the Yakima River, Washington USA. *Integrated Environmental Assessment and Management* 20(2):419-432. <https://doi.org/10.1002/ieam.4878>

Species: Chinook salmon

Location: Yakima River, WA

Other keywords: Ecological risk assessment, Bayesian networks

Liedtke, T. L., J. E. Harris, and A. E. Gray. 2024. Shoreline slope influences movements of larval lampreys over dewatered substrate. *Aquaculture, Fish and Fisheries* 4(1):e150. <https://doi.org/10.1002/aff2.150>

Species: Pacific and other lamprey

Location: n/a (laboratory study)

Other keywords: Phased dewatering

Losee, J. P., D. Palm, A. Claiborne, G. Madel, L. Persson, T. P. Quinn, T. Brodin, and G. Hellström. 2024. Anadromous trout from opposite sides of the globe: biology, ocean ecology, and management of anadromous Brown and cutthroat trout. *Reviews in Fish Biology and Fisheries* 34(1):461–490. <https://doi.org/10.1007/s11160-023-09824-0>

Species: Brown trout, cutthroat trout

Location: Northeastern Atlantic Ocean, Northeastern Pacific Ocean

Other keywords: Ocean ecology, management practices

Lubenau, W. J., T. R. Johnson, B. J. Bowersox, T. Copeland, J. L. McCormick, and M. C. Quist. 2024. Encounter rates and catch-and-release mortality of steelhead in the Snake River basin. *North American Journal of Fisheries Management* 44(1):3-20. <https://doi.org/10.1002/nafm.10965>

Species: Steelhead

Location: Snake River basin

Other keywords: Recreational fishery management

Mayer, N. B., S. G. Hinch, and E. J. Eliason. 2024. Thermal tolerance in Pacific salmon: a systematic review of species, populations, life stages and methodologies. *Fish and Fisheries* 25(2):283-302. <https://doi.org/10.1111/faf.12808>

Species: Pacific salmon

Location: n/a

Other keywords: Climate change impacts, upper thermal limits

McPhee, M. V., P. D. Barry, C. Habicht, S. C. Vulstek, J. R. Russell, W. W. Smoker, J. E. Joyce, and A. J. Gharrett. 2024. Hatchery supplementation provides a demographic boost but alters age composition of sockeye salmon in Auke Lake, Southeast Alaska. *Evolutionary Applications* 17(2):e13640. <https://doi.org/10.1111/eva.13640>

Species: Sockeye salmon
Location: Auke Lake, AK
Other keywords: Phenotypic change

Murdoch, A., B. M. Connors, N. W. R. Lapointe, J. Mills Flemming, S. J. Cooke, and C. Mantyka-Pringle. 2024. Multiple environmental drivers across life stages influence Yukon River Chinook salmon productivity. *Canadian Journal of Fisheries and Aquatic Sciences* 81(1):97-114. <https://doi.org/10.1139/cjfas-2022-0254>

Species: Chinook
Location: Yukon River basin, AK and BC
Other keywords: Climate change, spawner recruitment

Narum, S. R., R. Horn, S. Willis, I. Koch, and J. Hess. 2024. Genetic variation associated with adult migration timing in lineages of steelhead and Chinook salmon in the Columbia River. *Evolutionary Applications* 17(2):e13626 <https://doi.org/10.1111/eva.13626>

Species: Chinook salmon, steelhead
Location: Columbia River Basin
Other keywords: Interior lineages, genetic markers

Nelson, B. W., M. K. McAllister, A. W. Trites, A. C. Thomas, and C. J. Walters. 2024. Quantifying impacts of harbor seal *Phoca vitulina* predation on juvenile Coho salmon in the Strait of Georgia, British Columbia. *Marine and Coastal Fisheries* 16(1):e10271. <https://doi.org/10.1002/mcf2.10271>

Species: Coho salmon
Location: Strait of Georgia, British Columbia
Other keywords: Pinniped predation, early marine survival

Nelson, B. W., E. J. Ward, D. W. Linden, E. Ashe, and R. Williams. 2024. Identifying drivers of demographic rates in an at-risk population of marine mammals using integrated population models. *Ecosphere* 15(2):e4773. <https://doi.org/10.1002/ecs2.4773>

Species: Chinook salmon and southern resident killer whales
Location: West Coast of North America
Other keywords: Prey availability, carrying capacity

Nervino, S., T. Polley, J. T. Peterson, C. B. Schreck, M. L. Kent, and J. D. Alexander. 2024. Intestinal lesions and parasites associated with senescence and prespawn mortality in Chinook salmon (*Oncorhynchus tshawytscha*). *Journal of Fish Diseases* 47(2):e13876. <https://doi.org/10.1111/jfd.13876>

Species: Chinook salmon
Location: Willamette River, OR
Other keywords: Epithelial integrity

Price, M. H., J. W. Moore, S. McKinnell, B. M. Connors, and J. D. Reynolds. 2024. Habitat modulates population-level responses of freshwater salmon growth to a century of change in climate and competition. *Global Change Biology* 30(1):e17095. <https://doi.org/10.1111/gcb.17095>

Species: Sockeye salmon
Location: Skeena River, BC
Other keywords: Climate change impacts, water temperature

Puglis, H. J., and M. Iacchetta. 2024. Toxicity of wildland fire retardants to rainbow trout in short exposures. *Environmental Toxicology and Chemistry* 43(2):398-404. <https://doi.org/10.1002/etc.5791>

Species: Rainbow trout

Location: n/a

Other keywords: Toxicological studies, pollutant effects, wildfire effects

Robinson, Z. L., J. Stephenson, K. Vertacnik, S. Willis, R. Horn, J. McCane, D. K. Coykendall, and S. R. Narum. 2024. Efficient species identification for Pacific salmon genetic monitoring programs. *Evolutionary Applications* 17(3):e13680. <https://doi.org/10.1111/eva.13680>

Species: Pacific salmon

Location: Columbia River Basin

Other keywords: Genetic markers, genotyping-in-thousands

Roozee, E., D. Kim, A. Sohns, J. R. de Vries, O. F. Temby, and G. M. Hickey. 2024. Managing inter-organizational trust and risk perceptions in transboundary fisheries governance networks. *Marine Policy* 159:105927. <https://doi.org/10.1016/j.marpol.2023.105927>

Species: Pacific Salmon

Location: Salish Sea

Other keywords: Management strategies, transboundary fisheries governance

Rosenbaum, S. W., S. A. May, K. R. Shedd, C. J. Cunningham, R. L. Peterson, B. W. Elliot, and M. V. McPhee. 2024. Reliability of trans-Generational Genetic mark–recapture (TGMR) for enumerating Pacific salmon. *Evolutionary Applications* 17(2):e13647. <https://doi.org/10.1111/eva.13647>

Species: Chinook salmon

Location: Chilkat River, AK

Other keywords: Abundance estimation, close-kin mark–recapture

Seki, K., M. Ichimura, N. Ihara, and Y. Makiguchi. 2024. Changes in courtship prior to oviposition in chum salmon (*Oncorhynchus keta*) and male preference for female body size. *Ecology of Freshwater Fish* 17(2):e1276. <https://doi.org/10.1111/eff.12762>

Species: Chum salmon

Location: n/a

Other keywords: Courtship behavior, spawning

Smith, C. T., R. Headley, M. Smith, B. M. Kennedy, J. Holmes, M. Nehmens, B. Adams, M. Piteo, and J. Von Barga. 2024. Demographic and genetic consequences of a steelhead supplementation program. *Transactions of the American Fisheries Society* 153(1):112-128. <https://doi.org/10.1002/tafs.10446>

Species: Steelhead

Location: Abernathy Creek, WA

Other keywords: Reproductive success, temporal population structure

Strait, J. T., J. A. Grummer, N. F. Hoffman, C. C. Muhlfeld, S. R. Narum, and G. Luikart. 2024. Local environments, not invasive hybridization, influence cardiac performance of native trout under acute thermal stress. *Evolutionary Applications* 17(2):e13663. <https://doi.org/10.1111/eva.13663>

Species: Westslope cutthroat and rainbow trout

Location: Upper Flathead River basin, Montana

Other keywords: Thermal stress

Su, G. Y., M. J. Allison, J. Beblow, K. Koch, J. Anderson, L. K. M'Gonigle, M. Cleveland, C. C. Helbing, and V. L. Marlatt. 2024. Enumeration potential of environmental DNA for Pacific salmon stock assessments. *Environmental DNA* 6(1):e508. <https://doi.org/10.1002/edn3.508>

Species: Pacific salmon

Location: Skeena River Basin, BC

Other keywords: Environmental DNA, stock assessments, genetic markers

Suffridge, C. P., K. C. Shannon, H. Matthews, R. C. Johnson, C. Jeffres, N. Mantua, A. E. Ward, E. Holmes, J. Kindopp, M. Aidoo, and F. S. Colwell. 2024. Connecting thiamine availability to the microbial community composition in Chinook salmon spawning habitats of the Sacramento River basin. *Applied and Environmental Microbiology* 90(1):e01760-23. <https://doi.org/10.1128/aem.01760-23>

Species: Chinook salmon

Location: Sacramento River, CA

Other keywords: Thiamine deficiency complex, benthic microbes

Rosenbaum, S. W., S. A. May, K. R. Shedd, C. J. Cunningham, R. L. Peterson, B. W. Elliot, and M. V. McPhee. 2024. Reliability of trans-generational genetic mark-recapture (tGMR) for enumerating Pacific salmon. *Evolutionary Applications* 17(2):e13647. <https://doi.org/10.1111/eva.13647>

Species: Chinook salmon

Location: Chilkat River, Alaska

Other keywords: Abundance estimation, close-kin mark-recapture

Templeton, W. J., D. A. Jay, H. L. Diefenderfer, and S. A. Talke. 2024. Shallow-water habitat in the lower Columbia River estuary: a highly altered system. *Estuaries and Coasts* 47:91-116. <https://doi.org/10.1007/s12237-023-01229-3>

Species: n/a

Location: Columbia River Estuary

Other keywords: Climate change impacts, habitats, human impacts

Tigano, A., T. Weir, H. G. Ward, M. K. Gale, C. M. Wong, E. J. Eliason, K. M. Miller, S. G. Hinch, and M. A. Russello. 2024. Genomic vulnerability of a freshwater salmonid under climate change. *Evolutionary Applications* 17(2):e13602. <https://doi.org/10.1111/eva.13602>

Species: Sockeye salmon

Location: British Columbia and Yukon

Other keywords: Climate change impacts, genotype-environment associations

Welker, T. L., and F. T. Barrows. 2024. Improved fecal particle size profile in Rainbow Trout fed feeds containing different ratios of animal meal and plant protein concentrates: effect on nitrogen and phosphorus partitioning. *North American Journal of Aquaculture* 86(1):84-94.

<https://doi.org/10.1002/naaq.10315>

Species: Rainbow Trout

Location: n/a (laboratory study)

Other keywords: Fish meal replacement, fecal quality

White, J. S., T. J. Kock, B. E. Penaluna, S. Gregory, J. Williams, and R. Wildman. 2024. Expansion of smallmouth bass distribution and habitat overlap with juvenile Chinook salmon in the Willamette River, Oregon. *River Research and Applications* 40(2):251-263. <https://doi.org/10.1002/rra.4228>

Species: Smallmouth bass, Chinook salmon

Location: Willamette River, OR

Other keywords: Introduced species, piscivory predation

Willis, S., Coykendall, D. K., Campbell, M. R., and S. Narum. 2024. Contrasting patterns of sequence variation in steelhead populations reflect distinct evolutionary processes. *Evolutionary Applications*, 17(1):e13623. <https://doi.org/10.1111/eva.13623>

Species: Steelhead

Location: Columbia River Basin

Other keywords: Genetic variation, genotype-environment associations

Willis, S., J. Stephenson, A. Pierce, L. Medeiros, L. Jenkins, D. R. Hatch, and S. Narum. 2024. A genomic region associated with iteroparous spawning phenology is linked with age-at-maturity in female steelhead trout. *Evolutionary Applications*, 17(2):e13622. <https://doi.org/10.1111/eva.13622>

Species: Steelhead

Location: Columbia River Basin

Other keywords: Genetic variation, spawning patterns

Wilson, J. T., and T. W. Buehrens. 2024. Weirs: an effective tool to reduce hatchery-wild interactions on the spawning grounds? *North American Journal of Fisheries Management* 44(1):21-38.

<https://doi.org/10.1002/nafm.10961>

Species: Fall Chinook

Location: Lower Columbia River basin, WA

Other keywords: Proportion of hatchery-origin spawners

Winkowski, J. J., J. D. Olden, and S. Brown. 2024. Integrating spatial stream network models and environmental DNA to estimate current and future distributions of nonnative smallmouth bass. *Transactions of the American Fisheries Society* 153(2):180–199. <https://doi.org/10.1002/tafs.10454>

Species: Smallmouth bass

Location: Chehalis River, WA

Other keywords: Fish distribution estimation, introduced species

Wolf, N., S. Garcia, B. P. Harris, and K. G. Howard. 2024. Stable isotopes, morphology, and body condition metrics suggest similarity in the trophic level and diversity in the carbon sources of freshwater and early marine diets of Chinook salmon. *Marine Biology* 171:75. <https://doi.org/10.1007/s00227-024-04392-8>

Species: Chinook salmon

Location: n/a

Other keywords: Trophic interactions, morphology