

Alaska Hatchery-Wild Salmon Interaction study

Science Panel

October 2026

In 2011, ADF&G organized a science panel composed of current and retired scientists from ADF&G, University of Alaska, aquaculture associations, and National Marine Fisheries Service, to discuss ways to systematically evaluate interactions of wild and hatchery produced salmon in Alaska. Panel members have broad experience in salmon fishery enhancement, management, and interactions. The science panel designed and guided the long-term research project to examine interaction of wild and hatchery pink and chum salmon in PWS and SEAK. Science panel members are listed below.

Dr. Milo Adkison: Ph.D. in Fisheries. Alaska Department of Fish and Game; Fisheries Scientist – Alaska lead on the Chinook Technical Committee of the Pacific Salmon Commission. Previously Department Chair and Professor of Fisheries, University of Alaska Fairbanks. Former commercial salmon fisherman, brief stints as a federal biologist and on the NPFMC Scientific and Statistical Committee. Served on the NPRB Science Panel, AYK-SSI Science and Technical Committee, SW AK Salmon Habitat Partnership Steering Committee, AK Chapter of AFS Financial Assets Oversight Committee, and is a Subject Editor for Marine and Coastal Fisheries.

Dr. John Burke: B.A. Philosophy (San Jose State), M.S. and Ph.D. Fisheries (University of Washington): Forty-five years in Alaska salmon fisheries with: UW and US Fish and Wildlife Service (fish pathology); ADF&G (Pathologist, Hatchery Manager, Regional Supervisor, Deputy Director, and Assistant Director/Fisheries Scientist); Southern SE Regional Aquaculture Association (General Manager and currently Subject Matter Specialist/Fish Culture/Biology).

Dr. Kristen Gruenthal: B.S. in Biology, University of Puget Sound; Ph.D. in Marine Biology, UCSD Scripps Institution of Oceanography. Over 20 years of experience conducting population, conservation, and aquaculture genetics research in marine, anadromous and freshwater finfish, invertebrate, and kelp species. Member of multiple NOAA Fisheries ESA status review, recovery, and implementation planning teams or sub teams. Current ADF&G DCF Statewide Stock Status Geneticist.

Chris Habicht: Alaska Department of Fish and Game (retired). B.S. in Fisheries Science; Cornell University. M.S. in Zoology; Southern Illinois University. Thirty years as Research Project Leader, Statewide Stock Status Geneticist, and Principal Geneticist.

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Dr. Jeff Hard: M.S. in Fisheries Science, University of Alaska; Ph.D. in Ecology & Evolutionary Biology, University of Oregon. More than thirty years with NOAA Fisheries as a biologist; currently Genetics & Evolution Program Manager at NOAA's Northwest Fisheries Science Center. Past-President, Genetics Section of the American Fisheries Society. U.S. Member of the Standing Committee on Scientific Cooperation, Pacific Salmon Commission. Affiliate Professor with the University of Alaska School of Fisheries & Ocean Sciences and the University of Washington School of Aquatic & Fishery Sciences. Led several of NOAA's Endangered Species Act status reviews for Pacific salmon, steelhead, and coastal cutthroat trout. Research focuses on conservation genetics, population viability analysis and risk assessment, and evolutionary demography in salmonids.

Ron Josephson: ADF&G Fisheries Biologist (retired). During his career with ADF&G, he was actively involved with the Alaska salmon fishery enhancement program for forty years. He supervised the statewide hatchery permitting program, was the director of the Mark Tag and Age Lab, served as Co-chair of the Enhancement Committee for Transboundary Rivers, as well as a member of Data Sharing, and Selective Fisheries committees on the Pacific Salmon Commission, as Chair of the Mark Committee for the North Pacific Anadromous Fish Commission, and a wide range of field projects. Following retirement, he has continued to work in support of Alaska salmon fisheries.

Dr. Samuel May: B.S. in Marine Science and Biology, University of Miami; Ph.D. in Aquatic and Fishery Sciences, University of Washington. Previously, completed a postdoc at University of Alaska Fairbanks examining hatchery-wild interactions with AHRP data. Led and participated in research on salmon straying and population structure, eco-evolutionary dynamics, quantitative and population genetics, and aquaculture systems. Presently, Research Geneticist (PI) with the USDA Agricultural Research Service - National Cold Water Marine Aquaculture Center in Orono, Maine. Leads a research program utilizing genetic approaches to increase the efficiency, sustainability, and resilience of aquaculture systems, particularly genetic improvements for Atlantic salmon.

Steve Reifenstuhl: West Virginia University B.S. Wildlife Science, WVU master's program; General Manager NSRAA 2010 to present. Over forty years in Alaska fisheries science, including as U.S.F.S. fisheries biologist and thirty-five years developing NSRAA salmon programs working closely with NMFS Little Port Walter research station and ADF&G policy & program development. Serve on North Pacific Research Board Advisory Panel, North Pacific Anadromous Fish Commission, and Federal Subsistence Board S.E. Regional Advisory Panel. Executive Director of S.E. Herring Conservation Alliance since 2009.

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Dr. William Smoker: Professor of Fisheries Emeritus in the College of Fisheries and Ocean Sciences, University of Alaska Fairbanks. He received his education from Carleton College (BA Biology) and Oregon State University (MS Oceanography, PhD Fisheries). He has been a member of the Science Panel since its inception in 2011, is Chair of the Fisheries Standards Committee for the Alaska Responsible Fishery Management Program, was a founding member of the Congressional Hatchery Scientific Review Group for Washington State 2000-2008, a member of the Pacific Northwest Power and Conservation Council's Independent Science Review Panel 2009-2014, and an at-large member of the Board of Directors of Prince William Sound Aquaculture Corporation 1994-2016. Published research has focused on topics related to the biology and conservation of Pacific salmon, particularly in the context of interacting populations of naturally reproducing and hatchery-produced salmon.

William Templin: Alaska Department of Fish and Game. M.S. in Fisheries Science, University of Alaska. Twenty-eight years with ADF&G as a biologist, geneticist, and fisheries scientist; including eight years as head of the department's genetics program as Principal Geneticist. Currently the Chief Fisheries Scientist for Salmon with the Commercial Fisheries Division.

Alex Wertheimer: B.S., M.S. in Fisheries Science, Oregon State University and University of Alaska. Retired NMFS Fisheries Research Biologist after thirty-five years with focus on Alaska salmon. Led and participated in research projects and studies on hatchery technology, salmon enhancement strategies for Alaska environments, hatchery and wild salmon interactions, marine ecology of Pacific salmon, and factors affecting marine survival, homing, and straying of Pacific salmon. Past-President, Alaska Chapter of the American Fisheries Society. Current Chair of the Standing Committee on Scientific Cooperation, Pacific Salmon Commission.

Dr. Peter Westley: B.S., M.S. in Fishery and Aquatic Sciences from the University of Washington, and Ph.D. in Biology from Memorial University of Newfoundland, Canada. Currently serves on the Marine Fishes Specialist Subcommittee of COSEWIC (Canada) and is assistant professor and PI of the Salmonid Evolutionary Ecology and Conservation Lab at the University of Alaska Fairbanks (seec-lab.com). Members of the SEEC Lab use natural experiments afforded by climate change, biological invasion and colonization, and hatchery and wild fish interactions to explore fundamental questions with applied importance for sustaining the connection between salmon, people, and place.

Lorna Wilson: Alaska Department of Fish and Game Fisheries Biologist. M.S. in Fisheries; University of Alaska Fairbanks. Actively involved in the Alaska salmon fishery enhancement program. Fifteen years of incorporating salmon biology into quality assurance and control for ADF&G-produced information. Advisee of science panel members in M.S. study and in current Ph.D. study.

Former science panel members (no longer participating):

Dr. David Bernard: Ph.D. Alaska Department of Fish and Game (retired) - Biometrician, Fisheries Scientist, Chief Fisheries Scientist; Oregon State University - Research Associate, Assistant Professor; Pacific Salmon Commission - Chinook Technical Committee (member), Sentinel Stocks Committee (co-chair); Education and experience in biometrics, stock assessment, salmon population dynamics, international and domestic fisheries management.

Dr. John H Clark: M.S. and Ph.D. in Fisheries Science; Colorado State University. Forty-three years with ADF&G as Research Project Leader, Regional Supervisor, Fisheries Scientist, Chief Fisheries Scientist, and Pacific Salmon Treaty Specialist.

Jeff Regnart: B.S., M.S. in Fisheries, Humboldt University. Retired ADF&G. During his thirty-year career he managed Bristol Bay, Cook Inlet and Prince William fisheries. Eventually he served as the Director of the Commercial Fisheries Division responsible for all the State commercial, subsistence, and personal use fisheries. Following retirement, he serves as the fisheries technical expert for the Alaska Seafood Marketing Institute.

Tommy Sheridan: M.S. in Fisheries and Wildlife Administration from Oregon State University, which included graduate internship service on the HWI Science Panel until the conclusion of his graduate program in June 2018. Sixteen years of experience with Alaskan salmon fishery management, including eight years with Northern Southeast Regional Aquaculture Association, six years with ADF&G's Division of Commercial Fisheries, and two years with Silver Bay Seafoods. Currently serves on the HWI Finance Committee and serves as a liaison between the HWI and the Alaskan salmon processing community. Additional service on the Alaska Fisheries Development Foundation Board of Directors; Prince William Sound Science Center Board of Directors; City of Cordova Fisheries Advisory and Fisheries Development committees; and, on the Copper River/Prince William Sound Fish and Game Advisory Committee. Currently employed as External Affairs Officer for Silver Bay Seafoods.

Eric Volk: B.A., Cornell University; M.S. in fisheries science, University of Washington. Twenty years as a salmon research scientist for Washington Department of Fish and Wildlife, where he led the development and early application of otolith thermal marking, integral to the hatchery-wild interactions study. Eleven years at Alaska Department of Fish and Game (retired) as salmon research supervisor and Chief Fisheries Scientist.