The Salmon Monitoring Advisor: A Hierarchical Web Site to Help Design and Implement Salmon Monitoring Programs

Peterman, R.M.[1], P.B. Adams[2], B. Dorner[1,3], D.L. Drake[4], H.J. Geiger[5], K. Holt[1,6], C. Jordan[7], D.P. Larsen[8], S.A. Leider[9], R.H. Lincoln[10], A.R. Olsen[11], C.K. Parken[12], J.D. Rodgers[13], and S. Walbridge[14]

[1]School of Resource and Environmental Management, Simon Fraser University, Burnaby, B.C., Canada
[2]Southwest Fisheries Science Center, National Marine Fisheries Service, Santa Cruz, CA
[3]General Delivery, Lasqueti Island, B.C., Canada
[4]Oregon Department of Environmental Quality, Portland, OR
[5]St. Hubert Research Group, Juneau, AK
[6]Fisheries and Oceans Canada, Pacific Biological Station, B.C., Canada
[7]NOAA Fisheries, c/o U.S. Environmental Protection Agency, Corvallis, OR
[8]Pacific States Marine Fisheries Commission, c/o U.S. Environmental Protection Agency, Corvallis, OR
[9]Governor's Salmon Recovery Office, Olympia, WA
[10]State of the Salmon, Portland, OR
[11]Western Ecology Division, National Health and Environmental Effects Laboratory, U. S. Environmental Protection Agency, Corvallis, OR
[12]Fisheries and Oceans Canada, Pacific Biological Station, B.C., Canada
[13]Oregon Department of Fish and Wildlife, Corvallis, OR
[14]National Center for Ecological Analysis and Synthesis, Santa Barbara, CA

Salmon managers, scientists, and non-governmental organizations face substantial challenges designing cost-effective monitoring programs to assess both status and time trends in abundance, productivity, spatial structure, and diversity of salmon populations. We are currently developing a web-accessible knowledge base called the "Salmon Monitoring Advisor" to help such people choose designs that (1) reliably estimate changes in salmon indicators, and (2) estimate the relative contribution of climate-driven mechanisms to those observed changes (compared to changes caused by other factors). This web site provides a systematic, structured framework to help users develop clear goals and objectives, as well as design and implement salmon monitoring programs that are reliable, informative, and cost-effective. The site is accessible in a hierarchical manner to reflect diverse audiences, including (1) scientists who design monitoring programs and/or analyze the resulting data, (2) technical staff who implement monitoring designs in the field, (3) people involved in providing funding for monitoring programs, and (4) managers and decision makers in government agencies or in local or regional salmon conservation organizations. This web site is named "Salmon Monitoring Advisor" because it provides advice and guidelines to help users work through the essential steps involved in designing monitoring programs to meet stated objectives, and provides pros and cons of different designs, rather than being prescriptive about which design best meets a particular monitoring objective. The web site uses seven sequential steps to guide monitoring design and implementation and provides extensive explanations and real-world examples for each step.

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