References Cited in March 10, 1998 NMFS Listing Proposal for Two ESUs of Chum Salmon (63 FR 11774)

Federal Register Notices

November 20, 1991 (56 FR 58612) September 12, 1994 (59 FR 46808) July 1, 1994 (59 FR 34270) July 1, 1994 (59 FR 34272)

Published Reports and Memoranda

- Ames, J. 1983. Salmon stock interactions in Puget Sound: A preliminary look. *In* Miller, M. A. (ed.), Southeast Alaska coho salmon research and management review and planning workshop, May 18-19, 1982, p. 84-95 Alaska Dep. Fish Game.
- Bakkala, R. G. 1970. Synopsis of biological data on the chum salmon, (*Oncorhynchus keta*) (Walbaum) 1792. FAO Fish. Synop. 41, U.S. Fish. Wildl. Serv. Circ. 315, 89 p.
- Bax, N. J. 1983a. The early marine migration of juvenile chum salmon (*Oncorhynchus keta*) through Hood Canal - its variability and consequences. Ph.D. Thesis, Univ. Wash., Seattle, WA, 196 p.
- Bax, N. J. 1983b. Early marine mortality of marked juvenile chum salmon (*Oncorhynchus keta*) released into Hood Canal, Puget Sound, Washington, in 1980. Can. J. Fish. Aquat. Sci. 40:426-435Beall, E. P. 1972. The use of predator-prey tests to assess the quality of chum salmon (*Oncorhynchus keta*) fry. M.S. Thesis, Univ. Wash., Seattle, WA, 105 p.
- Beechie, T. et al. 1994. Estimating coho salmon rearing habitat and smolt production losses in a large river basin, and implications for habitat restoration. No. Am. J. Fish. Manag. 14(4):797-811.
- Bjornn, T.C., and D.W. Reiser 1991. Habitat requirements of salmonids in streams. Pages 83-138, in W.R. Meehan (editor) Influences of forest and rangeland management on salmonid fishes and their habitats. Special Publication 19. American Fisheries Society, Bethesda, Maryland.
- Bortelson, G.C., M.J. Chrzastowski, and P. Hickey. 1980. Historical changes of shoreline and wetland at eleven major deltas in the Pugetd Sound region, Washington. Atlas HA-617, Department of the Interior, U.S. Geological Survey.
- Botkin, D., K. Cummins, T. Dunne, H. Reiger, M. Sobel, and L. Talbot. 1995. Status and future of salmon in Western Oregon and Northern California. The Center for the Study of the Environment. Report #8. May, 1995.

- Boule, M.E., N. Olmstead, and T. Miller. 1983. Inventory of wetland resources to develop an evaluation of wetland management in Western Washington. Final report to Washington State Department of Ecology, Olympia, WA. 102 p.
- Canning, D. 1997. Habitat Loss and Change on Puget Sound Shorelines. Puget Sound Notes. Wash. Dept. of Ecology. 40:1-2.
- Cook-Tabor, C. K. 1994. Summer chum salmon in Hood Canal. U.S. Fish Wildl. Serv., Olympia, WA, 52 p. (Available from U.S. Department of the Interior, Fish and Wildlife Service, Western Washington Fishery Resource Office, 2825 Parkmont Lane, Bldg. A, Olympia, WA)
- Dahl, T. E. 1990. Wetlands losses in the United States 1780s to 1980s. U. S. Dep. Interior, Fish and Wild. Serv., Washington, D.C.
- Edwards, R., G. Portes, and F. Fleming. 1992. Regional nonpoint source program summary. Env. Prot. Agency, Region 10, Seattle, WA.
- Evenson, J. R., and J. Calambokidis. 1993. Monitoring of harbor seals at Dosewallips River Delta: September 1992 to July 1993. Final report by Cascadia Research Collective for Wash. State Parks and Recreation Dep., Olympia, WA, 33 p. (Available from Washington State Parks and Recreation Department, 7150 Cleanwater Lane, KY-11, Olympia, WA)
- Fredin, R. A., R. L. Major, R. G. Bakkala, and G. Tanonaka. 1977. Pacific salmon and the highseas salmon fisheries of Japan. NWAFC Processed Rep., 324 p.
- Fresh, K. L., and S. L. Schroder. 1987. Influence of the abundance, size and yolk reserves of juvenile chum salmon (*Oncorhynchus keta*) on predation by freshwater fishes in a small coastal stream. Can. J. Fish. Aquat. Sci. 44(2):236-243.
- Gallagher, A. F., Jr. 1979. An analysis of factors affecting brood year returns in the wild stocks of Puget Sound chum (*Oncorhynchus keta*) and pink salmon (*Oncorhynchus gorbuscha*).M.S. Thesis, Univ. Wash., Seattle, WA, 152 p.
- Gilbert, C. H. 1922. The salmon of the Yukon River. U.S. Bur. Fish., Bull. 38:317-332.
- Graves, G. 1989. GSI and chum fisheries management in southern British Columbia and Washington. *In* 14th Northeast Pacific Pink and Chum Salmon Workshop, Port Ludlow, Washington, p. 28-31. (Available from Northwest Indian Fish. Comm., 6730 Martin Way E., Olympia, WA)
- Gregory, S.V., and P.A. Bisson. 1997. Degradation and loss of anadromous salmonid habitat in

the Pacific Northwest. *In* Stouder, D.J., P.A. Bisson, and R.J. Naiman (eds.), Pacific Salmon and their ecosystems: Status and future options, p. 277-314. Chapman and Hall, New York.

- Groot, C. and L. Margolis (editors). 1991. Pacific salmon life histories. Univ. B.C. Press, Vancouver, B.C., 564 p.
- Helle, J. H. 1979. Influence of marine environment on age and size at maturity, growth, and abundance of chum salmon, *Oncorhynchus keta* (Walbaum), from Olsen Creek, Prince William Sound, Alaska. Ph.D. Thesis, Oreg. State Univ., Corvallis, OR, 118 p.
- Hendrick, D. 1996. Pers. commun., January 1996, with D. Hendrick, WDFW, 333 East Blackburn Rd., Mt. Vernon, WA 98273.
- Hindar, K., N. Ryman, and F. Utter. 1991. Genetic effects of cultured fish on natural fish populations. Can. J. Fish. Aquat. Sci. 48:945-957.
- Hutchinson, I., A.C. Prentice, and G. Bradfield. 1989. Aquatic plant resources of the Strait of Georgia. *In* Vermeer, K., and R.W. Butler (eds.), The ecology and status of marine and shoreline birds in the Strait of Georgia, British Columbia. Spec. Publ., Can. Wildl. Serv.
- Johnson, R. 1973. Potential interspecific problems between hatchery coho smolts and juvenile pink and chum salmon. Puget Sound stream studies, pink and chum salmon investigations. Wash. Dep. Fish., 40 p. (Available from Washington Department of Fish and Wildilfe, 600 Capitol Way N., Olympia, WA)
- Kathey, K.S. 1993. An evaluation of the utility of a citizen shoreline survey to shoreline management plan development on Bainbridge Island, Washington. M.S. thesis, Univ. Wash., Seattle, WA, 108 p.
- Kellogg, E. (ed.) 1992. Coastal temperate rain forests: ecological characteristics, status, and distribution worldwide. Ecotrust and Conservation International, Portland, OR, and Washington, D.C.
- Kobayashi, T. 1961. Biology of the chum salmon, *Oncorhynchus keta* (Walbaum), by the growth formula of scale. Sci. Rep. Hokkaido Salmon Hatchery 16:1-102.
- Kostow, K., (editor). 1995. Biennial report on the status of wild fish in Oregon. Oreg. Dep. Fish Wildl. Internal Report. (Available from Oregon Department of Fish and Wildlife, P.O. Box 59, Portland, OR)
- Lawson, P.W. 1993. Cycles in ocean productivity, trends in habitat quality, and the restoration of salmon runs in Oregon. Fisheries 18(8):6-10.

- LeClair, L.L. 1995. WDFW memorandum to Tim Tynan re: 1995 Catch Area 20 chum salmon bycatch. Genetics Unit, Research and Development Div., Wash. Dep. Fish. Wildl., Olympia, WA.
- LeClair, L.L. 1996. WDFW memorandum to Tim Tynan (August 29, 1996): 1996 Catch Area 20 chum salmon bycatch. Genetics Unit, Research and Development Div., Wash. Dep. Fish. Wildl., Olympia, WA.
- Levings, C.D. and R.M. Thom. 1994. Habitat Changes in Georgia Basin: Implications for Resource Management and Restoration. Can. Tech. Rep. of Fish. and Aq. Sci. no. 1948. 330-351.
- Lichatowich, J.A. 1989. Habitat alteration and changes in abundance of coho (*Oncorhynchus kisutch*) and chinook salmon (*O. tshawytscha*) in Oregon's coastal streams, p. 92-99. *In*. C.D. Levings, L.B. Holtby, and M.A. Henderson [ed.] Proceedings of the National Workshop on Effects of Habitat Alteration on Salmonid Stocks. Can. Spec. Publ. Fish. Aquat. Sci. 105.
- Marr, J.C. 1943. Age, length and weight studies of three species of Columbia River salmon (*Oncorhynchus keta, O. gorbuscha* and *O. kisutch*). Stanford Ichthyol. Bull. 2:157-197.
- McHenry, M.L. 1996. Freshwater habitat conditions affecting Strait of Juan de Fuca populations of coho salmon (*Oncorhynchus kisutch*). Lower Elwha Klallam Tribe, Port Angeles, WA. 46 p.
- Miller, R.J. and E.L. Brannon. 1982. The origin and development of life history patterns in Pacific salmonids. Pages 296-309 in E.L. Brannon and E.O. Salo, eds. Proceedings of the Salmon and Trout Migratory Behavior Symposium. University of Washington, School of Fisheries, Seattle, WA.
- Morrison, S.W., J.K. Kettman, and D. Haug. 1993. Inventory and characterization of shoreline armoring, Thurston County, Washington, 1977-1993. Prepared by Thurston Regional Planning Council for Wash. Dept. Ecology.
- National Marine Fisheries Service (NMFS). 1996a. Chum Salmon Status Review.
 Memorandum from M. Schiewe thru U. Varanasi to W. Stelle, Jr., dated October 31, 1996. (Available from Protected Resources Division, NMFS, 525 NE Oregon Street, Portland, OR)
- National Marine Fisheries Service (NMFS). 1996b. Hood Canal Summer Chum Salmon.
 Memorandum from M. Schiewe thru U. Varanasi to W. Stelle, dated December 20, 1996.
 (Available from Protected Resources Division, NMFS, 525 NE Oregon Street, Portland, OR)

- National Marine Fisheries Service (NMFS). 1996c. Factors for Decline: A Supplement to the Notice of Determination for West Coast Steelhead Under the Endangered Species Act. (Available from Protected Resources Division, NMFS, 525 NE Oregon Street, Portland, OR)
- National Oceanic and Atmospheric Administration (NOAA). 1985. National Estuarine Inventory: Data Atlas, Volume 1. Physical and Hydrologic Characteristics. Strategic Assessment Branch, NOS/NOAA, Rockville, MD. 103 p.
- Neave, F. 1961. Pacific salmon: Ocean stocks and fishery developments. Proc. 9th Pac. Sci. Congr. 1957(10):59-62.
- Nehlsen, W., J.E. Williams, and J.A. Lichatowich. 1991. Pacific salmon at the crossroads: Stocks at risk from California, Oregon, Idaho, and Washington. Fisheries 16(2):4-21.
- Nesbit, D.M. 1885. Tide marshes of the United States. Dep. Agriculture miscellaneous special report No. 7. Washington, D.C. 259 p.
- Norse, E.A. 1990. Ancient forests of the Pacific Northwest. The Wilderness Society and Inland Press, Washington, D.C.
- Oakley, A.L. 1966. A summary of information concerning chum salmon in Tillamook Bay. Oreg. Fish. Comm Res. Briefs 12:5-21.
- Omernik, J.M. 1987. Ecoregions of the conterminous United States. Ann. Assoc. Am. Geographers 77(1):118-125.
- Omernik, J.M., and A.L. Gallant. 1986. Ecoregions of the Pacific Northwest. U.S. Environmental Protection Agency, Corvallis, OR, Superintendent of Documents No. EP 1.23:600/3-86/033, 39 p.
- Oregon Coastal Salmon Restoration Initiative (OCSRI). 1997. The Oregon Plan: Oregon's Coastal Salmon Restoration Initiative. (Available from Oregon Department of Fish and Wildlife, P.O. Box 59, Portland, OR)
- Oregon Department of Fish and Wildlife (ODFW). 1997. Letter from S.D. King (ODFW) to G. Griffin (NMFS) dated May 21, 1997, with attachments. (Available from Oregon Department of Fish and Wildlife, P.O. Box 59, Portland, OR)
- Oregon Department of Fish and Wildlife (ODFW) and Washington Department of Fish and Wildlife (WDFW). 1995. Status report: Columbia River fish runs and fisheries, 1938-94. Oreg. Dep. Fish and Wildl. and Wash. Dep. Fish and Wildl. 291 p. (Available from Oregon Department of Fish and Wildlife, P.O. Box 59, Portland, OR)

Pacific Fisherman. 1928. Record chum caught off Quadra. Pac. Fisherman 1928 (Oct.):13.

- Pacific States Marine Fisheries Commission. 1997. Regional Mark Information System (RMIS). Online database available on Internet at http://www.psmfc.org/rmpc or telnet.psmfc.org.
- Pacific Salmon Commission Joint Chum Technical Committee. 1996. Final 1993 post-season summary report, TCCHUM (96)-1.
- Pauley, G.G., K.L. Bowers, and G.L. Thomas. 1988. Species profiles: life histories and environmental requirements of coastal fishes and invertebrates (Pacific Northwest) -chum salmon. U.S. Fish Wildl. Serv. Biol. Rep. 82(11.81). U.S. Army Corps. Engin., TR EL-82-4, 17 p.
- Pearcy, W.G. 1992. Ocean ecology of North Pacific salmonids. Washington Sea Grant Program, distributed by Univ. Wash. Press, Seattle, WA, 179 p.
- Pitcher, T.J. 1986. Functions of shoaling in teleosts. *In* Fisher, T.J. (ed.) The behavior of teleost fishes., p. 294-337. John Hopkins Univ. Press, Baltimore, MD.
- Pritchard, A.L. 1943. The age of chum salmon taken in the commercial catches in British Columbia. Fish. Res. Board Can. Prog. Rep., Pac. Coast Sta. 54:9-11.
- Professional Resource Organization-Salmon (PRO-Salmon). 1994. Petition for a rule to list nine Puget Sound salmon populations as threatened or endangered under the Endangered Species Act and to designate critical habitat. Petition to the U.S. National Marine Fisheries Service, March 1994, 86 p. (Available from Professional Resource Organization-salmon, Washington Public Employees Association, 124 10th Ave. SW, Olympia, WA 98501.)
- Randall, R.G., M.C. Healey, and J.B. Dempson. 1987. Variability in the length of freshwater residence of salmon, trout, and char. *In* Dodswell, M.J. et al. (Eds.), Common Strategies of anadromous and catadromous fishes. Am. Fish. Soc. Symp. 1:27-41.
- Reeves, G.H., J.D. Hall, T.D. Roelofs, T.L. Hickman, and C.O. Baker. 1991. ehabilitating and modifying stream habitats. Am. Fish. Soc. Spec. Publ. 19:519-558.
- Salo, E.O. 1991. Life history of chum salmon, Oncorhynchus keta. In C. Groot and L. Margolis (editors), Pacific salmon life histories, p. 231-309. Univ. B.C. Press, Vancouver, B.C.
- Sano, S. 1966. Chum salmon in the Far East. Salmon of the North Pacific Ocean. Part III. A review of the life history of North Pacific salmon. Int. North Pac. Fish. Comm. Bull. 18:4-58.

- Save Allison Springs Citizens' Commitee. 1994. Petition to list and protect the indigenous chum salmon, *Oncorhynchus keta*, found in Allison Springs, McLane Creek, the tributaries of McLane Creek, and Perry Creek in Mud Bay/Eld Inlet, southern Puget Sound, Thurston County, Washington as an endangered species under the Endangered Species Act, as well as to protect the salmon's critical habitat. Petition to the U.S. National Marine Fisheries Service, April 1994, 45 p. (Available from Save Allison Springs Citizens' Commitee, 3441 Mud Bay Road, S.W., Olympia, WA 98502.)
- Sedell, J.R., and J.L. Froggatt. 1984. Importance of streamside forests to large rivers: the isolation of the Willamette River, Oregon, U.S.A., from its floodplain by snagging and streamside forest removal. Internationale Vereinigung fur Theoretische und Angewandte Limnologie Verhandlungen. 22:1828-1834.
- Sedell, J.R., and K.J. Luchessa. 1982. Using the historical record as an aid to salmonid habitat enhancement. *In* N.B. Armantrout (ed.). Acquisition and utilization of aquatic habitat inventory information. p. 210-222.
- Shipman, H. 1997. Shoreline armoring on Puget Sound. Puget Sound Notes 40:2-6.
- Simenstad, C.A., K.L. Fresh, and E.O. Salo. 1982. The role of Puget Sound and Washington coastal estuaries in the life history of Pacific salmon: An unappreciated function. *In* V. S. Kennedy (editor), Estuarine comparisons, p. 343-364. Academic Press, New York.
- Speis, T.A., and J.F. Franklin. 1988. Old growth and forest dynamics in the Douglas-fir region of western Oregon and Washington. Natural Areas J. 8:190-201.
- Spence, B.C., G.A. Lomnicky, R.M. Hughes, and R.P. Novitzki. 1996. An ecosystem approach to salmonid conservation. TR-4501-96-6057. ManTech Environmental Research Services Corp., Corvallis, Oregon.
- Stewart, C.R and T.C. Bjornn. 1990. Supplementation of salmon and steelhead stocks with hatchery fish: a synthesis of published literature. Idaho Cooperative Fisheries and Wildlife Research Unit, University of Idaho, Moscow, ID. Tech. Report 90-1.
- Thom, R.M. and L. Hallum. 1990. Long-term changes in the areal extent of tidal marshes, eelgrass meadows and kelp forests of Puget Sound. EPA 910/9-91-005.
- Trout Unlimited. 1994. Petition for a rule to list Hood Canal summer chum as endangered under the Endangered Species Act. Petition to the U.S. National Marine Fisheries Service, May 1994, 19 p. (Available from Northwest Steelhead & Salmon Council of Trout Unlimited, 2401 Bristol Court, S.W., Suite A-18, Olympia, WA)
- Tynan, T. 1992. Hood Canal early chum harvest and escapement assessment: A review of

Hood Canal early chum escapements and inside Hood Canal commercial net fishery harvests (1969-91) with recommendations for short and long term management measures to assist stock rebuilding. Wash. Dep. Fish Wildl. Internal Rep., 57 p. (Available from Washington Department of Fish and Wildlife, 600 Capital Way N., Olympia, WA)

- Tynan, T. 1995. Letter to O. Johnson from T. Tynan re: salmon catch data by species and week for Canadian Area 20 net fisheries, 1964-1991, dated April 11, 1995. (Available from Washington Department of Fish and Wildlife, 600 Capital Way N., Olympia, WA)
- Tynan, T. 1996a and 1996b. {see Tynan 1995 and Tynan 1997}
- Tynan, T. 1997. Life history characterization of summer chum salmon populations in the Hood Canal and eastern Strait of Juan de Fuca regions. Tech. Rep. H97-06, 99p. (Available from Washington Department of Fish and Wildlife, 600 Capital Way N., Olympia, WA)
- United States Fish and Wildlife Service (USFWS). 1996. Letter to Summer Chum Restoration Cooperators from Tom Kane, Fishery Management Biologist. November 21, 1996. (Available from USFWS, Western Washington Fisheries Resource Office, 2625 Parkmont Lane, Building A, Olympia, WA)
- Waples, R.S. 1991. Pacific salmon, *Oncorhynchus* spp., and the definition of "species" under the Endangered Species Act. Mar. Fish. Rev. 53(3):11-22.
- Washington Department of Fish and Wildlife (WDFW). 1995. 1992 fisheries statistical report, 79 p. (Available from Washington Department of Fish and Wildlife, P.O. Box 43151, Olympia, WA)
- Washington Department of Fish and Wildlife (WDFW). 1996. Hood Canal and Strait of Juan de Fuca summer chum 1996 status and summary of stock restoration efforts. Fish Manage. Prog. And Hatcheries Prog. (Available from Washington Department of Fish and Wildlife, Fish Management Program and Hatcheries Program, 600 Capitol Way N., Olympia, WA)
- Washington Department of Fish and Wildlife (WDFW) and Point No Point Treaty Council (PNPTC). 1997. Letter from B. Crawford (WDFW) and R. Harder (PNPTC) to W. Stelle, Jr., dated December 4, 1997, with attachments. (Available from Washington Department of Fish and Wildlife, Fish Management Program and Hatcheries Program, 600 Capitol Way N., Olympia, WA)
- Washington Department of Fisheries (WDF), Washington Department of Wildlife (WDW), and Western Washington Treaty Indian Tribes (WWTIT). 1993. 1992 Washington State salmon and steelhead stock inventory (SASSI). Wash. Dep. Fish Wildl., 212 p. + three Appendices: Appendix One--Hood Canal and Strait of Juan de Fuca (December 1994,

424 p.), North Puget Sound (June 1994, 418 p.), and South Puget Sound (September 1994, 371 p.) Volumes; Appendix Two--Coastal stocks (August 1994, 587 p.); and Appendix Three-Columbia River stocks (June 1993, 580 p.). (Available from Washington Department of Fish and Wildlife, P.O. Box 43151, Olympia, WA)

- Wendler, H.O., and G. Deschamps. 1955. Loggin dams on coastal Washington streams. Rep. to Wash. Dep. Fish. Olympia, p. 27-28.
- Whitmus, C.M., Jr. 1985. The influence of size on the migration and mortality of early marine life history of juvenile chum salmon (*Oncorhynchus keta*). M.S. Thesis, Univ. Wash., Seattle, WA, 69 p.