

Appendix S3. Historic demographically independent Pacific salmon populations sorted by species and major (level-I) ecological regions.

Appendix Table 1. Proposed historic demographically independent steelhead populations sorted by major (level-I) ecological region. Each population is characterized according to its perceived current population status and historic biodiversity. Ecological, life history and genetic diversity are characterized using the hierarchical diversity matrix (see Appendix S1).

Steelhead population	Population status	Diversity category			Reference
		Ecological diversity	Life history diversity	Genetic Diversity	
A. Georgia Basin					
STRAIT OF GEORGIA (Mainland)					
Ashlu Creek	Extant	A2b	C1b	B6	Hancock and Marshall (1986)
Sechelt to East Howe Sound (Chapman Creek)	Extant	A1	C1b	B6	Hancock and Marshall (1986)
Cheakamus/Brohm River	Extant	A2b	C1b	B6	Hancock and Marshall (1986)
Seymour River / Lynn Creek	Extant	A2b	C1b	B6	Hancock and Marshall (1986)
Capilano River	Extinct	A2b	C1b	B6	Hancock and Marshall (1986), Slaney et al. (1996), DFO (1999), Brownell et al. (2001)
Mamquam/Stawamus rivers	Extant	A2b	C1b	B6	Hancock and Marshall (1986)
Squamish River	Extant	A2b	C1b	B6	Hancock and Marshall (1986)
Brem River (summer)	Extant	A2b	C1a	B6	Hancock and Marshall (1985c)
Brem River (winter)	Extant	A2b	C1b	B6	Hancock and Marshall (1985c)
Upper Jervis Inlet (Vancouver//Brittain rivers)	Extant	A2	C1b	B6	Marshall et al. (1976a)
Sechelt Inlet/Tzoonie River	Extant	A2	C1b	B6	Marshall et al. (1976a)
STRAIT OF GEORGIA (East coast Vancouver Island)					
Oyster River	Extant	A1	C1b	B6	Marshall et al. (1977a)
Quinsam/Campbell rivers (winter)	Extant	A1	C1b	B6	Marshall et al. (1977a)
Campbell River (summer)	Extant	A1	C1a	B6	
Qualicum River	Extant	A2	C1b	B6	Brown et al. (1977)
Little Qualicum River	Extant	A2	C1b	B6	Brown et al. (1977)

Steelhead population	Population status	Diversity category			Reference
		Ecological diversity	Life history diversity	Genetic Diversity	
Englishman River	Extant	A2	C1b	B6	Brown et al. (1977)
Puntledge River (summer)	Extant	A2	C1a	B6	Brown et al. (1977)
Puntledge River (winter)	Extant	A2	C1b	B6	
Chemainus River	Extant	A1	C1b	B6	Marshall et al. (1976b)
Nanaimo River (late run)	Extant	A1	C1b	B6	Marshall et al. (1976b)
Cowichan River	Extant	A1	C1b	B6	Marshall et al. (1976b)
Koksilah River	Extant	A1	C1b	B6	Marshall et al. (1976b)
LOWER FRASER RIVER (Chilliwack- Hope Subdistrict)					
Small south shore Lower Fraser River tributaries from mouth upstream to Hope (Clayburn/Nathan creeks, Salmon River)	Extant	A1	C1b	B7	Marshall et al. (1980b), DFO (1999)
Sumas/Chilliwack-Vedder rivers (winter)	Extant	A2	C1b	B7	Marshall et al. (1980b), DFO (1999)
Coquihalla River (summer)	Extant	A2	C1a	B7	Marshall et al. (1980b), DFO (1999)
Silverhope Creek	Extant	A2	C1b	B7	Marshall et al. (1980b), DFO (1999)
Stave River	Extinct	A2a	C1b	B7	DFO (1999), Slaney et al. (1996), Brownell et al. (2001)
Lower Pitt River and tributaries/Coquitlam River (Alouette/North Alouette rivers)	Extant	A2a	C1b	B7	DFO (1999)
Upper Pitt River	Extant	A2a	C1b	B7	DFO (1999)
Small north shore Lower Fraser River tributaries from mouth to below Stave River (Kanaka/ Whonnock creeks) (Brunette River, China Creek - extinct)	Extant	A1	C1b	B7	DFO (1999), Brownell et al. (2001), Hancock and Marshall (1985a), Hancock and Marshall (1985b)
Small north shore Lower Fraser River tributaries from Stave River to Hope (Nicomen/Hatzic sloughs, Ruby/Mahood creeks)	Extant	A1	C1b	B7	DFO (1999)
Harrison/Chehalis rivers, Weaver Creek	Extant	A2a	C1b	B7	DFO (1999)
Lillooet/Birkenhead River	Extant	A2	C1b	B7	
PUGET SOUND					

Steelhead population	Population status	Diversity category			Reference
		Ecological diversity	Life history diversity	Genetic Diversity	
South Fork/Middle Fork Nooksack River (Middle Fork summer - extinct in native habitat) (summer)	Extant	A2a	C1a	B1	WDF et al. (1993), Busby et al. (1996)
Mainstem and North Fork Nooksack River (winter)	Extant	A2a	C1b	B1	WDF et al. (1993), Busby et al. (1996)
South Fork Nooksack River (winter)	Extant	A2a	C1b	B1	WDF et al. (1993), Busby et al. (1996)
Middle Fork Nooksack River (winter)	Extant	A2a	C1b	B1	WDF et al. (1993), Busby et al. (1996)
Campbell/Nicomekl/Serpentine rivers	Extant	A1a	C1b	B1	DFO (1999)
Samish River (winter)	Extant	A1a	C1b	B1	WDF et al. (1993), Busby et al. (1996)
Sauk River (summer)	Extant	A2a	C1a	B1	WDF et al. (1993)
Cascade River (summer)	Extant	A2a	C1a	B1	WDF et al. (1993), Busby et al. (1996)
Mainstem Skagit River and lower tributaries (winter)	Extant	A2a	C1b	B1	WDF et al. (1993)
Baker River (winter)	Extant	A2a	C1b	B1	
Sauk River (winter)	Extant	A2a	C1b	B1	WDF et al. (1993), Busby et al. (1996)
Cascade River (winter)	Extant	A2a	C1b	B1	WDF et al. (1993)
Stillaguamish River (Deer/Canyon creeks) (Canyon Creek - highly modified) (summer)	Extant	A2a	C1a	B1	WDF et al. (1993), Busby et al. (1996)
Stillaguamish River (winter)	Extant	A2a	C1b	B1	WDF et al. (1993), Busby et al. (1996)
Snohomish River (N. Fork Skykomish/Tolt rivers) (summer)	Extant	A2a	C1a	B1	WDF et al. (1993), Busby et al. (1996)
Pilchuck River (winter)	Extant	A2a	C1b	B1	WDF et al. (1993)
Snohomish/Skykomish rivers (winter)	Extant	A2a	C1b	B1	Busby et al. (1996)
Snoqualmie River (winter)	Extant	A2a	C1b	B1	WDF et al. (1993)
Lake Washington/Lake Sammamish tributaries (winter)	Extant	A1a	C1b	B1	WDF et al. (1993), Busby et al. (1996)
Black/Cedar rivers (winter)	Extant	A1a	C1b	B1	WDF et al. (1993)
Duwamish/Green rivers (winter)	Extant	A2a	C1b	B1	Busby et al. (1996)
Mainstem Puyallup River (winter)	Extant	A2a	C1b	B1	WDF et al. (1993), Busby et al. (1996)
White River (winter)	Extant	A2a	C1b	B1	WDF et al. (1993)
Carbon River (winter)	Extant	A2a	C1b	B1	WDF et al. (1993)
Nisqually River (winter)	Extant	A2a	C1b	B1	Busby et al. (1996)
Eld/Totten/Hammersley inlets (winter)	Extant	A1b	C1b	B1	WDF et al. (1993)

Steelhead population	Population status	Diversity category			Reference
		Ecological diversity	Life history diversity	Genetic Diversity	
Case/Carr inlets (winter)	Extant	A1b	C1b	B1	WDF et al. (1993)
East Kitsap Peninsula (winter)	Extant	A1b	C1b	B1	WDF et al. (1993)
HOOD CANAL					
Skokomish River (summer)	Extant	A2a	C1a	B1	WDF et al. (1993), Busby et al. (1996)
Skokomish River (winter)	Extant	A2a	C1b	B1	WDF et al. (1993), Busby et al. (1996)
Duckabush/Dosewallips rivers (summer)	Extant	A2b	C1a	B1	WDF et al. (1993), Busby et al. (1996)
Hamma Hamma/Duckabush/ Dosewallips/Quilcene rivers, Dabob Bay (winter)	Extant	A2b	C1b	B1	WDF et al. (1993)
Southeast Hood Canal (Tahuya/ Dewatto/Union rivers) (winter)	Extant	A1b	C1b	B1	WDF et al. (1993)
STRAIT OF JUAN DE FUCA					
Dungeness/Elwha rivers (Elwha extinct in native habitat) (summer)	Extant	A2a	C1a	B1	WDF et al. (1993), Busby et al. (1996)
Discovery/Sequim bays, Morse Creek (winter)	Extant	A1b	C1b	B1	WDF et al. (1993), Busby et al. (1996)
Dungeness River (winter)	Extant	A2a	C1b	B1	WDF et al. (1993), Busby et al. (1996)
Elwha River (winter)	Extant	A2b	C1b	B1	WDF et al. (1993), Busby et al. (1996)
B. Coastal Rainforest					
WEST COAST VANCOUVER ISLAND					
Marble River	Extant	B1	C1b	B8	Brown et al. (1979d)
Koprino River	Extant	B1	C1b	B8	Brown et al. (1979d)
Klaskish River	Extant	B1	C1b	B8	Brown et al. (1979d)
Fisherman River	Extant	B1	C1b	B8	Brown et al. (1979d)
Goodspeed River	Extant	B1	C1b	B8	Brown et al. (1979d)
Mahatta Creek	Extant	B1	C1b	B8	Brown et al. (1979d)
San Josef Creek	Extant	B1	C1b	B8	Brown et al. (1979d)
Waukwaas Creek	Extant	B1	C1b	B8	Brown et al. (1979d)
Artlish River	Extant	B1	C1b	B8	Marshall et al. (1980a)
Battle River	Extant	B1	C1b	B8	Marshall et al. (1980a)
Clanninick Creek (winter)	Extant	B1	C1b	B8	Marshall et al. (1980a)

Steelhead population	Population status	Diversity category			Reference
		Ecological diversity	Life history diversity	Genetic Diversity	
Clanninick Creek (summer)	Extant	B1	C1a	B8	Marshall et al. (1980a)
Kaouk River (winter)	Extant	B1	C1b	B8	Marshall et al. (1980a)
Kaouk River (summer)	Extant	B1	C1a	B8	Marshall et al. (1980a)
Kashutl River (winter)	Extant	B1	C1b	B8	Marshall et al. (1980a)
Kashutl River (summer)	Extant	B1	C1a	B8	Marshall et al. (1980a)
Kauwinch River	Extant	B1	C1b	B8	Marshall et al. (1980a)
Malksope River	Extant	B1	C1b	B8	Marshall et al. (1980a)
Nasparti River (winter)	Extant	B1	C1b	B8	Marshall et al. (1980a)
Naspart i River (summer)	Extant	B1	C1a	B8	Marshall et al. (1980a)
Ououkinsh River	Extant	B1	C1b	B8	Marshall et al. (1980a)
Power River (winter)	Extant	B1	C1b	B8	Marshall et al. (1980a)
Power River (summer)	Extant	B1	C1a	B8	Marshall et al. (1980a)
Tahsish River (winter)	Extant	B1	C1b	B8	Marshall et al. (1980a)
Tahsish River (summer)	Extant	B1	C1a	B8	Marshall et al. (1980a)
Burman River	Extant	B1	C1b	B8	Brown et al. (1979e)
Conuma River	Extant	B1	C1b	B8	Brown et al. (1979e)
Gold and Muchalat rivers	Extant	B1	C1b	B8	Brown et al. (1979e)
Jacklah River (winter)	Extant	B1	C1b	B8	Brown et al. (1979e)
Jacklah River (summer)	Extant	B1	C1a	B8	Brown et al. (1979e)
Leiner River	Extant	B1	C1b	B8	Brown et al. (1979e)
Little Zeballos River	Extant	B1	C1b	B8	Brown et al. (1979e)
Mooyah River	Extant	B1	C1b	B8	Brown et al. (1979e)
Oktwanch River	Extant	B1	C1b	B8	Brown et al. (1979e)
Tahsis River	Extant	B1	C1b	B8	Brown et al. (1979e)
Tsowwin River	Extant	B1	C1b	B8	Brown et al. (1979e)
Zeballos River	Extant	B1	C1b	B8	Brown et al. (1979e)
Bedwell River	Extant	B1	C1b	B8	Brown et al. (1979c)
Cypre River	Extant	B1	C1b	B8	Brown et al. (1979c)
Ice River	Extant	B1	C1b	B8	Brown et al. (1979c)
Upper Kennedy River	Extant	B1	C1b	B8	Brown et al. (1979c)
Lost Shoe Creek	Extant	B1	C1b	B8	Brown et al. (1979c)

Steelhead population	Population status	Diversity category			Reference
		Ecological diversity	Life history diversity	Genetic Diversity	
Megin River	Extant	B1	C1b	B8	Brown et al. (1979c)
Moyeha River	Extant	B1	C1b	B8	Brown et al. (1979c)
Sydney River	Extant	B1	C1b	B8	Brown et al. (1979c)
Tofino Creek	Extant	B1	C1b	B8	Brown et al. (1979c)
Tranquil Creek	Extant	B1	C1b	B8	Brown et al. (1979c)
Caycuse River	Extant	B1	C1b	B8	Brown et al. (1979b)
Nitinat River	Extant	B1	C1b	B8	Brown et al. (1979b)
China Creek	Extant	B1	C1b	B8	Brown et al. (1979b)
Coleman Creek	Extant	B1	C1b	B8	Brown et al. (1979b)
Cous Creek	Extant	B1	C1b	B8	Brown et al. (1979b)
Effingham River	Extant	B1	C1b	B8	Brown et al. (1979b)
Franklin River	Extant	B1	C1b	B8	Brown et al. (1979b)
Henderson River / Uchuck Creek	Extant	B1	C1b	B8	Brown et al. (1979b)
Klanawa River	Extant	B1	C1b	B8	Brown et al. (1979b)
Maggie River	Extant	B1	C1b	B8	Brown et al. (1979b)
Nahmint River	Extant	B1	C1b	B8	Brown et al. (1979b)
Pachena River	Extant	B1	C1b	B8	Brown et al. (1979b)
Sarita River	Extant	B1	C1b	B8	Brown et al. (1979b)
Somass River	Extant	B1	C1b	B8	Brown et al. (1979b)
Toquart River	Extant	B1	C1b	B8	Brown et al. (1979b)
Gordon and San Juan rivers	Extant	B1	C1b	B8	Marshall et al. (1977b)
Jordan River	Extinct	B1	C1b	B8	Marshall et al. (1977b)
Kirby/Muir/Tugwell creeks	Extant	B1	C1b	B8	Marshall et al. (1977b)
Sooke River / Demamiel and Ayum creeks	Extant	B1	C1b	B8	Marshall et al. (1977b)
OLYMPIC PENINSULA					
Pysht/Lyre rivers, Salt Creek, independent tributaries (winter)	Extant	B1b	C1b	B2	WDF et al. (1993)
Hoko/Clallam/Sekiu/Sail rivers (winter)	Extant	B1b	C1b	B2	WDF et al. (1993)
Sooes/Waatch rivers (winter)	Extant	B1b	C1b	B2	WDF et al. (1993)
Ozette River (winter)	Extant	B1b	C1b	B2	WDF et al. (1993)
Bogachiel River (summer)	Extant	B2b	C1a	B2	WDF et al. (1993), Busby et al. (1996)

Steelhead population	Population status	Diversity category			Reference
		Ecological diversity	Life history diversity	Genetic Diversity	
Sol Duc River (summer)	Extant	B2b	C1a	B2	WDF et al. (1993), Busby et al. (1996)
Calawah River (summer)	Extant	B2b	C1a	B2	WDF et al. (1993), Busby et al. (1996)
Bogachiel River (winter)	Extant	B2b	C1b	B2	WDF et al. (1993)
Sol Duc River (winter)	Extant	B2b	C1b	B2	WDF et al. (1993)
Calawah River (winter)	Extant	B2b	C1b	B2	WDF et al. (1993)
Dickey River (winter)	Extant	B2b	C1b	B2	WDF et al. (1993)
Hoh River (summer)	Extant	B2b	C1a	B2	WDF et al. (1993), Busby et al. (1996)
Hoh River, Goodman/Mosquito creeks (winter)	Extant	B2b	C1b	B2	WDF et al. (1993)
Queets River (summer)	Extant	B2b	C1a	B2	WDF et al. (1993), Busby et al. (1996)
Clearwater River (summer)	Extant	B1b	C1a	B2	WDF et al. (1993), Busby et al. (1996)
Queets River (winter)	Extant	B2b	C1b	B2	WDF et al. (1993), Busby et al. (1996)
Clearwater River (winter)	Extant	B2b	C1b	B2	WDF et al. (1993)
Quinault River (winter)	Extant	B2a	C1b	B2	Busby et al. (1996)
Quinault River (summer)	Extant	B2a	C1a	B2	WDF et al. (1993), Busby et al. (1996)
C. Northern Coastal (Southwest Washington to Cape Blanco)					
WASHINGTON					
Moclips/Copalis rivers (winter)	Extant	C4	C1b	B2	WDF et al. (1993); Busby et al. (1996)
Humtulpis River (summer)	Extant	C2b	C1a	B2	WDF et al. (1993), Busby et al. (1996)
Humtulpis River (winter)	Extant	C2b	C1b	B2	Busby et al. (1996)
Wishkah/Hoquiam rivers (winter)	Extant	C2b	C1b	B2	Busby et al. (1996)
Chehalis/Wynoochee rivers (summer)	Extant	C2a	C1a	B2	WDF et al. (1993)
Chehalis River (winter)	Extant	C2a	C1b	B2	WDF et al. (1993), Busby et al. (1996)
Wynoochee River (winter)	Extant	C2a	C1b	B2	WDF et al. (1993), Busby et al. (1996)
Satsop River (winter)	Extant	C2a	C1b	B2	WDF et al. (1993), Busby et al. (1996)
North/Willapa/Palix rivers (winter)	Extant	C2b	C1b	B2	WDF et al. (1993)
Nemah/Naselle/Bear rivers (winter)	Extant	C2b	C1b	B2	WDF et al. (1993)
COLUMBIA RIVER					
Chinook/Grays/Deep rivers, Crooked Creek (winter)	Extant	C1	C1b	B3	Busby et al. (1996), Phelps et al. (1997)
Lewis & Clark/Youngs/Klaskanine rivers (winter)	Extant	C1	C1b	B3	Chilcote (1997)

Steelhead population	Population status	Diversity category			Reference
		Ecological diversity	Life history diversity	Genetic Diversity	
Big/Bear/Gnat creeks (winter)	Extant	C1	C1b	B3	Chilcote (1997)
Jim Crow/Skamokawa creeks, Elochoman River (winter)	Extant	C1	C1b	B3	Phelps et al. (1997), Chilcote (1997)
Mill /Abernathy/Germany/Coal creeks (winter)	Extant	C1	C1b	B3	Busby et al. (1996), Phelps et al. (1997)
Clatskanie River, Hunt/Plympton/ Beaver creeks (winter)	Extant	C1	C1b	B3	Chilcote (1997)
OREGON COAST					
Necanicum River (winter)	Extant	C4	C1b	B5	Chilcote (1997)
North Nehalem River (winter)	Extant	C2b	C1b	B5	Chilcote (1997)
Lower Nehalem River (winter)	Extant	C2b	C1b	B5	Chilcote (1997)
Upper Nehalem River (winter)	Extant	C2b	C1b	B5	Chilcote (1997)
Miami River (winter)	Extant	C2b	C1b	B5	Chilcote (1997)
Kilchis River (winter)	Extant	C2b	C1b	B5	Chilcote (1997)
Wilson River (winter)	Extant	C2b	C1b	B5	Chilcote (1997)
Trask River (winter)	Extant	C2b	C1b	B5	Chilcote (1997)
Tillamook River (winter)	Extant	C2b	C1b	B5	Chilcote (1997)
Nestucca River (winter)	Extant	C2b	C1b	B5	Chilcote (1997)
Little Nestucca River (winter)	Extant	C2b	C1b	B5	Chilcote (1997)
Salmon River (winter)	Extant	C4	C1b	B5	Chilcote (1997)
Siletz River, Drift Creek (winter)	Extant	C2b	C1b	B5	Chilcote (1997)
Siletz River (summer)	Extant	C2b	C1a	B5	Chilcote (1997)
Yaquina River (winter)	Extant	C2b	C1b	B5	Chilcote (1997)
Alsea River, Drift Creek (winter)	Extant	C2b	C1b	B5	Chilcote (1997)
Yachats River, Tenmile/ Cummins/Big creeks (winter)	Extant	C4	C1b	B5	Chilcote (1997)
Siuslaw River (winter)	Extant	C2b	C1b	B5	Chilcote (1997)
Smith River (winter)	Extant	C2b	C1b	B5	Chilcote (1997)
North Umpqua River (winter)	Extant	C2a	C1b	B5	Chilcote (1997)
North Umpqua River (summer)	Extant	C2a	C1a	B5	Chilcote (1997)
South Umpqua River (winter)	Extant	C2a	C1b	B5	Chilcote (1997)
South Umpqua River (summer)	Extinct	C2a	C1a	B5	Nehlsen et al. (1991)

Steelhead population	Population status	Diversity category			Reference
		Ecological diversity	Life history diversity	Genetic Diversity	
Coos River (winter)	Extant	C2b	C1b	B5	Chilcote (1997)
Millicoma River (winter)	Extant	C2b	C1b	B5	Chilcote (1997)
Coquille River (winter)	Extant	C2b	C1b	B5	Chilcote (1997)
South Coquille River (winter)	Extant	C2b	C1b	B5	Chilcote (1997)
Floras Creek, Sixes River (winter)	Extant	C4	C1b	B5	Chilcote (1997)
D. Klamath Mountains Province					
OREGON					
Elk River, Euchre Creek (winter)	Extant	D3	D1b	C	Chilcote (1997)
Upper Rogue River (winter)	Extant	D1	D1b	C	Chilcote (1997)
Upper Rogue River (summer)	Extant	D1	D1a	C	Chilcote (1997)
Lower Rogue River (winter)	Extant	D1	D1b	C	Chilcote (1997)
Applegate River (winter)	Extant	D1	D1b	C	Chilcote (1997)
Applegate River (summer)	Extant	D1	D1a	C	Chilcote (1997)
Illinois River (winter)	Extant	D1	D1b	C	Chilcote (1997)
Hunter Creek, Pistol River (winter)	Extant	D3	D1b	C	Chilcote (1997)
Chetco/Winchuck rivers (winter)	Extant	D3	D1b	C	Chilcote (1997)
CALIFORNIA					
Smith River (winter)	Extant	D3	D1b	C	Busby et al. (1996)
Smith River (summer)	Extant	D3	D1a	C	Busby et al. (1996), Moyle et al. (1995)
KLAMATH RIVER					
Lower Klamath River tributaries below Salmon River confluence (Blue/Redcap/Bluff/Camp creeks) (summer)	Extant	D2	D1a	C	Busby et al. (1996), Kier Associates (1991)
Middle Klamath River/Upper Klamath River tributaries above confluence with Salmon River (Elk/Dillon/Indian/Clear/Grider/ Ukonom creeks) (summer)	Extant	D2	D1a	C	Busby et al. (1996), Moyle et al. (1995), Kier Associates (1991)
Salmon River, Wooley Creek (summer)	Extant	D2	D1a	C	Busby et al. (1996), Moyle et al. (1995), Kier Associates (1991)
Scott River (summer)	Extant	D2	D1a	C	Kier Associates (1991)

Steelhead population	Population status	Diversity category			Reference
		Ecological diversity	Life history diversity	Genetic Diversity	
Lower Klamath River tributaries below Trinity River confluence (Blue Creek) (fall/winter)	Extant	D2	D1a	C	Kier Associates (1991), Leidy and Leidy (1984)
Middle Klamath River tributaries from confluence with Trinity River to Scott River (fall/winter)	Extant	D2	D1a	C	Kier Associates (1991), Leidy and Leidy (1984)
Klamath River and tributaries above Scott River to Iron Gate Hatchery (fall/winter)	Extant	D2	D1a	C	Kier Associates (1991), Leidy and Leidy (1984)
Upper Klamath River (fall/winter) (remnant spawned at Iron Gate Hatchery)	Extant	D2	D1a	C	Kier Associates (1991)
Salmon River (fall/winter)	Extant	D2	D1a	C	Busby et al. (1996), Kier Associates (1991), Leidy and Leidy (1984)
Scott River (fall/winter)	Extant	D2	D1a	C	Kier Associates (1991), Leidy and Leidy (1984)
Shasta River (fall/winter)	Extant	D2	D1a	C	Kier Associates (1991)
Williamson River (spring)	Extinct (original population existence uncertain)	D2	D1	H	Evermann and Meek (1898), Behnke (1992), Kostow (1995), Hamilton et al. (2005)
Sprague River (spring)	Extinct (original population existence uncertain)	D2	D1	H	Evermann and Meek (1898), Behnke (1992), Kostow (1995), Hamilton et al. (2005)
Wood River (spring)	Extinct (original population existence uncertain)	D2	D1	H	Evermann and Meek (1898), Behnke (1992), Kostow (1995), Hamilton et al. (2005)
TRINITY RIVER					
South Fork Trinity River, Hayfork Creek (summer)	Extant	D2	D1a	C	Moyle et al. (1995), Kier Associates (1991)
Middle Trinity River tributaries (Canyon Creek, New/North Fork Trinity rivers) (summer)	Extant	D2	D1a	C	Moyle et al. (1995), Kier Associates (1991), Moffett and Smith (1950)

Steelhead population	Population status	Diversity category			Reference
		Ecological diversity	Life history diversity	Genetic Diversity	
Lower Mainstem Trinity River tributaries (from Klamath River confluence to North Fork Trinity River) (New River) (fall/winter)	Extant	D2	D1a	C	Kier Associates (1991), Leidy and Leidy (1984)
Trinity River tributaries (from North Fork Trinity River to Lewiston Dam) (fall/winter)	Extant	D2	D1a	C	Kier Associates (1991), Leidy and Leidy (1984)
Upper Trinity River and tributaries (Stuart Fork/East Fork Trinity River, Coffee Creek) - remnant spawned at Trinity River Hatchery (fall/winter)	Extant	D2	D1a	C	Kier Associates (1991), Moffett and Smith (1950)
South Fork Trinity River, Hayfork Creek (fall/winter)	Extant	D2	D1a	C	Kier Associates (1991)
E. Northern California (South of Klamath River to San Lorenzo River)					
Redwood Creek (winter)	Extant	E1	D1b	D	Bjorkstedt et al. (2005)
Redwood Creek (summer)	Extant	E1	D1a	D	Bjorkstedt et al. (2005)
Mad River (winter)	Extant	E1	D1b	D	Bjorkstedt et al. (2005)
Mad River (summer)	Extant	E1	D1a	D	Bjorkstedt et al. (2005)
EEL RIVER					
Van Duzen River (winter)	Extant	E1	D1b	D	Bjorkstedt et al. (2005)
South Fork Eel River (winter)	Extant	E1	D1b	D	Bjorkstedt et al. (2005)
North Fork Eel River (winter)	Extant	E1	D1b	D	Bjorkstedt et al. (2005)
Middle Fork Eel River (winter)	Extant	E1	D1b	D	Bjorkstedt et al. (2005)
Upper Mainstem Eel River (winter)	Extant	E1	D1b	D	Bjorkstedt et al. (2005)
Van Duzen River (summer)	Extant	E1	D1a	D	Bjorkstedt et al. (2005)
South Fork Eel River (summer)	Extant	E1	D1a	D	Bjorkstedt et al. (2005)
Larabee Creek (summer)	Extant	E1	D1a	D	Bjorkstedt et al. (2005)
North Fork Eel River (summer)	Extant	E1	D1a	D	Bjorkstedt et al. (2005)
Upper Middle Mainstem Eel River (summer)	Extinct	E1	D1a	D	Bjorkstedt et al. (2005)
Middle Fork Eel River (summer)	Extant	E1	D1a	D	Bjorkstedt et al. (2005)
Upper Mainstem Eel River (summer)	Extinct	E1	D1a	D	Bjorkstedt et al. (2005)

Steelhead population	Population status	Diversity category			Reference
		Ecological diversity	Life history diversity	Genetic Diversity	
Mattole River (winter)	Extant	E1	D1b	D	Bjorkstedt et al. (2005)
Mattole River (summer)	Extant	E1	D1a	D	Bjorkstedt et al. (2005)
Ten Mile River (winter)	Extant	E2	E1	D	Bjorkstedt et al. (2005)
Noyo River (winter)	Extant	E2	E1	D	Bjorkstedt et al. (2005)
Big River (winter)	Extant	E2	E1	D	Bjorkstedt et al. (2005)
Albion River (winter)	Extant	E2	E1	D	Bjorkstedt et al. (2005)
Navarro River (winter)	Extant	E2	E1	D	Bjorkstedt et al. (2005)
Garcia River (winter)	Extant	E2	E1	D	Bjorkstedt et al. (2005)
Gualala River (winter)	Extant	E2	E1	D	Bjorkstedt et al. (2005)
Upper Russian River (winter)	Extant	E2	E1	E	Bjorkstedt et al. (2005)
SAN FRANCISCO BAY					
Sonoma Creek (winter)	Extant	E2	E1	E	Bjorkstedt et al. (2005)
Napa River (winter)	Extant	E2	E1	E	Bjorkstedt et al. (2005)
San Leandro Creek (winter)	Extant	E2	E1	E	Bjorkstedt et al. (2005)
San Lorenzo Creek (winter)	Extant	E2	E1	E	Bjorkstedt et al. (2005)
Alameda Creek (winter)	Extant	E2	E1	E	Bjorkstedt et al. (2005)
Coyote Creek (winter)	Extant	E2	E1	E	Bjorkstedt et al. (2005)
Guadalupe River (winter)	Extant	E2	E1	E	Bjorkstedt et al. (2005)
San Gregorio Creek (winter)	Extant	E2	E1	E	Bjorkstedt et al. (2005)
Pescadero Creek (winter)	Extant	E2	E1	E	Bjorkstedt et al. (2005)
San Lorenzo River (winter)	Extant	E2	E1	E	Bjorkstedt et al. (2005)
F. Southern California					
Pajaro River	Extant	F1	F1	F	Snyder (1914), Busby et al. (1996), Titus et al. (in prep.), Boughton et al. 2006
Gabilan Creek (Salinas River)	Extant	F1	F1	F	Boughton et al. 2006
Arroyo Seco (Salinas River)	Extant	F1	F1	F	Boughton et al. 2006
Nacimiento, San Antonio, and upper Salinas rivers	Extant	F1	F1	F	Boughton et al. 2006
Carmel River	Extant	F1	F1	F	Busby et al. (1996), Titus et al. (in prep.), Boughton et al. 2006
San Jose Creek	Extant	F1	F1	F	Boughton et al. 2006

Steelhead population	Population status	Diversity category			Reference
		Ecological diversity	Life history diversity	Genetic Diversity	
Malpaso Creek	Extant	F1	F1	F	Boughton et al. 2006
Garrapata Creek	Extant	F1	F1	F	Boughton et al. 2006
Rocky Creek	Extant	F1	F1	F	Boughton et al. 2006
Bixby Creek	Extant	F1	F1	F	Boughton et al. 2006
Little Sur River	Extant	F1	F1	F	Boughton et al. 2006
Big Sur River	Extant	F1	F1	F	Boughton et al. 2006
Partington Creek	Extant	F1	F1	F	Boughton et al. 2006
Big Creek	Extant	F1	F1	F	Boughton et al. 2006
Vicente Creek	Extant	F1	F1	F	Boughton et al. 2006
Limekiln Creek	Extant	F1	F1	F	Boughton et al. 2006
Mill Creek	Extant	F1	F1	F	Boughton et al. 2006
Prewitt Creek	Extant	F1	F1	F	Boughton et al. 2006
Plaskett Creek	Extant	F1	F1	F	Boughton et al. 2006
Willow Creek - Monterey	Extant	F1	F1	F	Boughton et al. 2006
Alder Creek	Extant	F1	F1	F	Boughton et al. 2006
Villa Creek - Monterey	Extant	F1	F1	F	Boughton et al. 2006
Salmon Creek	Extant	F1	F1	F	Boughton et al. 2006
San Carpoforo Creek	Extant	F1	F1	F	Boughton et al. 2006
Arroyo de la Cruz	Extant	F1	F1	F	Boughton et al. 2006
Little Pico Creek	Extant	F1	F1	F	Boughton et al. 2006
Pico Creek	Extant	F1	F1	F	Boughton et al. 2006
San Simeon Creek	Extant	F1	F1	F	Boughton et al. 2006
Santa Rosa Creek	Extant	F1	F1	F	Boughton et al. 2006
Villa Creek - SLO	Extant	F1	F1	F	Boughton et al. 2006
Cayucos Creek	Extinct	F1	F1	F	Boughton et al. 2006
Old Creek	Extinct	F1	F1	F	Boughton et al. 2006
Toro Creek	Extant	F1	F1	F	Boughton et al. 2006
Morro Creek	Extant	F1	F1	F	Boughton et al. 2006
Chorro Creek	Extant	F1	F1	F	Boughton et al. 2006
Los Osos Creek	Extant	F1	F1	F	Boughton et al. 2006

Steelhead population	Population status	Diversity category			Reference
		Ecological diversity	Life history diversity	Genetic Diversity	
Islay Creek	Extant	F1	F1	F	Boughton et al. 2006
Coon Creek	Extant	F1	F1	F	Boughton et al. 2006
Diablo Canyon	Extant	F1	F1	F	Boughton et al. 2006
San Luis Obispo Creek	Extant	F1	F1	F	Boughton et al. 2006
Pismo Creek	Extant	F1	F1	F	Boughton et al. 2006
Arroyo Grande Creek	Extant	F1	F1	F	Boughton et al. 2006
Santa Maria River	Extant	F1	F1	F	Titus et al. (in prep.), Brownell et al. (2001), Boughton et al. 2006
Santa Ynez River	Extant	F1	F1	F	Moyle et al. (1995), Busby et al. (1996), Titus et al. (in prep.), Boughton et al. 2006
Jalama Creek	Extinct	F1	F1	F	Boughton et al. 2006
Canada de Santa Anita	Extant	F2	F1	F	Boughton et al. 2006
Canada de la Gaviota	Extant	F2	F1	F	Boughton et al. 2006
Canada San Onofre	Extinct	F2	F1	F	Boughton et al. 2006
Arroyo Hondo	Extant	F2	F1	F	Boughton et al. 2006
Arroyo Quemado	Extinct	F2	F1	F	Boughton et al. 2006
Tajiguas Creek	Extinct	F2	F1	F	Boughton et al. 2006
Canada del Refugio	Extinct	F2	F1	F	Boughton et al. 2006
Canada del Venadito	Extinct	F2	F1	F	Boughton et al. 2006
Canada del Corral	Extinct	F2	F1	F	Boughton et al. 2006
Canada del Capitan	Extinct	F2	F1	F	Boughton et al. 2006
Gato Canyon	Extant	F2	F1	F	Boughton et al. 2006
Dos Pueblos Canyon	Extinct	F2	F1	F	Boughton et al. 2006
Eagle Canyon	Extant	F2	F1	F	Boughton et al. 2006
Tecolote Canyon	Extinct	F2	F1	F	Boughton et al. 2006
Bell Canyon	Extinct	F2	F1	F	Boughton et al. 2006
Goleta Slough Complex	Extant	F2	F1	F	Boughton et al. 2006
Arroyo Burro	Extinct	F2	F1	F	Boughton et al. 2006
Mission Creek	Extant	F2	F1	F	Boughton et al. 2006
Montecito Creek	Extant	F2	F1	F	Boughton et al. 2006
Oak Creek	Extinct	F2	F1	F	Boughton et al. 2006

Steelhead population	Population status	Diversity category			Reference
		Ecological diversity	Life history diversity	Genetic Diversity	
San Ysidro Creek	Extant	F2	F1	F	Boughton et al. 2006
Romero Creek	Extant	F2	F1	F	Boughton et al. 2006
Arroyo Paredon	Extant	F2	F1	F	Boughton et al. 2006
Carpinteria Salt Marsh Complex	Extinct	F2	F1	F	Boughton et al. 2006
Carpinteria Creek	Extant	F2	F1	F	Boughton et al. 2006
Rincon Creek	Extinct	F2	F1	F	Boughton et al. 2006
Ventura River	Extant	F2	F1	F	Boughton et al. 2006
Santa Clara River	Extant	F2	F1	F	Busby et al. (1996), Moyle et al. (1995), Titus et al. (in prep.), Boughton et al. 2006
Big Sycamore Canyon	Extinct	F2	F1	F	Boughton et al. 2006
Arroyo Sequit	Extant	F2	F1	F	Boughton et al. 2006
Malibu Creek	Extant	F2	F1	F	Boughton et al. 2006
Topanga Canyon	Extant	F2	F1	F	Boughton et al. 2006
Los Angeles River	Extinct	F2	F1	F	Boughton et al. 2006
San Gabriel River	Extinct	F2	F1	F	Boughton et al. 2006
Santa Ana River	Extinct	F2	F1	F	Boughton et al. 2006
San Juan Creek	Extinct	F2	F1	F	Boughton et al. 2006
San Mateo Creek	Extant	F2	F1	F	Boughton et al. 2006
San Onofre Creek	Extinct	F2	F1	F	Boughton et al. 2006
Santa Margarita River	Extinct	F2	F1	F	Boughton et al. 2006
San Luis Rey River	Extinct	F2	F1	F	Boughton et al. 2006
San Diego River	Extinct	F2	F1	F	Boughton et al. 2006
Sweetwater River	Extinct	F2	F1	F	Boughton et al. 2006
Otay River	Extinct	F2	F1	F	Boughton et al. 2006
G. California Central Valley					
SACRAMENTO RIVER					
American River	Extant	G3	G1	G	Lindley et al. (2006)
Antelope Creek	Extant	G1a	G1	G	Lindley et al. (2006)
Battle Creek (Middle and South Fork)	Extinct	G1b	G1	G	Lindley et al. (2006)

Steelhead population	Population status	Diversity category			Reference
		Ecological diversity	Life history diversity	Genetic Diversity	
Battle Creek (Knob Gulch, North Fork, Rock Cr.)	Extinct	G1b	G1	G	Lindley et al. (2006)
Bear River (Feather R. basin) (North Fork)	Extant	G1b	G1	G	Lindley et al. (2006)
Bear River (Feather R. basin) (Long Valley Creek)	Extinct	G1b	G1	G	Lindley et al. (2006)
Bear River (Sacramento R. tributary)	Extant	G1b	G1	G	Lindley et al. (2006)
Big Chico Creek (South Fork)	Extant	G1b	G1	G	Lindley et al. (2006)
Big Chico Creek (Rock Cr., mainstem)	Extant	G1b	G1	G	Lindley et al. (2006)
Big Chico Creek (East Branch Mud Cr.)	Extant	G1b	G1	G	Lindley et al. (2006)
Butte Creek (Middle Fork)	Extant	G1b	G1	G	Lindley et al. (2006)
Butte Creek (mainstem)	Extant	G1b	G1	G	Lindley et al. (2006)
Cache Creek	Extinct	G1c	G1	G	Lindley et al. (2006)
Clear Creek	Extant	G1a	G1	G	Lindley et al. (2006)
Coon Creek 1(mainstem)	Extant	G1b	G1	G	Lindley et al. (2006)
Coon Creek 2 (mainstem)	Extant	G1b	G1	G	Lindley et al. (2006)
Cottonwood Creek (mainstem)	Extant	G1a	G1	G	Lindley et al. (2006)
Cottonwood Creek (South Fork)	Extant	G1a	G1	G	Lindley et al. (2006)
Cottonwood Creek (Jerusalem Cr., Moon Fork, NF Bear Cr.)	Extant	G1a	G1	G	Lindley et al. (2006)
Cottonwood Creek (Duncan Cr., Soap Cr., mainstem)	Extant	G1a	G1	G	Lindley et al. (2006)
Cottonwood Creek (Wells Cr.)	Extant	G1a	G1	G	Lindley et al. (2006)
Cottonwood Creek (mainstem)	Extant	G1a	G1	G	Lindley et al. (2006)
Deer Creek (Sacramento R. tributary)	Extant	G1b	G1	G	Lindley et al. (2006)
Elder Creek	Extant	G1a	G1	G	Lindley et al. (2006)
Feather River (Briscoe Cr.)	Extant	G1b	G1	G	Lindley et al. (2006)
Feather River (Rocky Honcut Cr., Canyon Cr., Concow Cr., Little Butte Cr., Middle Fork, North Fork)	Extant	G1b	G1	G	Lindley et al. (2006)
Feather River (Elk Cr., West Branch)	Extant	G1b	G1	G	Lindley et al. (2006)
Little Cow Creek (Clover Cr.)	Extant	G1b	G1	G	Lindley et al. (2006)
Little Cow Creek (South Cow Cr.)	Extant	G1b	G1	G	Lindley et al. (2006)

Steelhead population	Population status	Diversity category			Reference
		Ecological diversity	Life history diversity	Genetic Diversity	
Little Cow Creek (Cedar Cr., mainstem)	Extant	G1b	G1	G	Lindley et al. (2006)
Little Cow Creek (Gelndenning Cr., Old Cow Cr.)	Extant	G1b	G1	G	Lindley et al. (2006)
McCloud River	Extinct	G1a	G1	G	Lindley et al. (2006)
Mill Creek	Extant	G1b	G1	G	Lindley et al. (2006)
Paynes Creek	Extant	G1b	G1	G	Lindley et al. (2006)
Pit River (Squaw Cr.)	Extinct	G1a	G1	G	Lindley et al. (2006)
Pit River (Potem Cr., mainstem)	Extinct	G1a	G1	G	Lindley et al. (2006)
Putah Creek	Extinct	G1c	G1	G	Lindley et al. (2006)
Stony Creek (Grindstone Cr., North Fork, South Fork, Salt Cr.)	Extant	G1c	G1	G	Lindley et al. (2006)
Stony Creek (Little Stony Cr., Salt Cr., South Honcut Cr.)	Extant	G1c	G1	G	Lindley et al. (2006)
Suisun Bay tributaries (northern Kelso Cr., Sullivan Cr., mainstem)	Extant	G3	G1	G	Lindley et al. (2006)
Sweany Creek	Extant	G1c	G1	G	Lindley et al. (2006)
Thomes Creek	Extant	G1c	G1	G	Lindley et al. (2006)
Toomes Creek	Extant	G1b	G1	G	Lindley et al. (2006)
Upper Sacramento River	Extinct	G1a	G1	G	Lindley et al. (2006)
Yuba River (mainstem)	Extant	G1b	G1	G	Lindley et al. (2006)
Yuba River (Dry Cr., mainstem)	Extant	G1b	G1	G	Lindley et al. (2006)
SAN JOAQUIN RIVER					
Calaveras River (Woods Cr.)	Extinct	G2	G1	G	Lindley et al. (2006)
Calaveras River (mainstem)	Extinct	G2	G1	G	Lindley et al. (2006)
Calaveras River (San Antonio Cr., San Domingo Cr.)	Extinct	G2	G1	G	Lindley et al. (2006)
Calaveras River (McKinney Cr., O'Neil Cr.)	Extinct	G2	G1	G	Lindley et al. (2006)
Caliente Creek (Indian Cr.)	Extinct	G2	G1	G	Lindley et al. (2006)
Caliente Creek (Tehachapi Cr.)	Extinct	G2	G1	G	Lindley et al. (2006)
Caliente Creek (Walker Basin)	Extinct	G2	G1	G	Lindley et al. (2006)
Chowchilla River (mainstem)	Extinct	G2	G1	G	Lindley et al. (2006)
Chowchilla River (Willow Cr., mainstem)	Extinct	G2	G1	G	Lindley et al. (2006)

Steelhead population	Population status	Diversity category			Reference
		Ecological diversity	Life history diversity	Genetic Diversity	
Cosumnes River	Extant	G3	G1	G	Lindley et al. (2006)
Deer Creek (Kaweah R. basin)	Extinct	G2	G1	G	Lindley et al. (2006)
Del Puerto Creek	Extinct	G3	G1	G	Lindley et al. (2006)
Fresno River	Extinct	G2	G1	G	Lindley et al. (2006)
Kaweah River (South Fork Tule R.)	Extinct	G2	G1	G	Lindley et al. (2006)
Kaweah River (Tyler Cr.)	Extinct	G2	G1	G	Lindley et al. (2006)
Kaweah River (mainstem)	Extinct	G2	G1	G	Lindley et al. (2006)
Kern River (North Fork)	Extinct	G2	G1	G	Lindley et al. (2006)
Kern River (French Gulch, Little Poso Cr., Tillie Cr.)	Extinct	G2	G1	G	Lindley et al. (2006)
Kern River (Fay Cr., Kelso Cr., Marsh Cr.)	Extinct	G2	G1	G	Lindley et al. (2006)
Kings River (South Fork)	Extinct	G2	G1	G	Lindley et al. (2006)
Kings River (Bitterwater Canyon, South Fork, mainstem)	Extinct	G2	G1	G	Lindley et al. (2006)
Lone Tree Creek	Extinct	G3	G1	G	Lindley et al. (2006)
Los Banos Creek	Extinct	G3	G1	G	Lindley et al. (2006)
Los Gatos Creek (mainstem)	Extinct	G3	G1	G	Lindley et al. (2006)
Los Gatos Creek (Rube Cr.)	Extinct	G3	G1	G	Lindley et al. (2006)
Marsh Creek	Extant	G3	G1	G	Lindley et al. (2006)
Merced River (Snow Cr.)	Extinct	G2	G1	G	Lindley et al. (2006)
Merced River (Middle Fork, Miami Cr., mainstem)	Extinct	G2	G1	G	Lindley et al. (2006)
Mokelumne River (Sutter Cr., mainstem)	Extant	G3	G1	G	Lindley et al. (2006)
Mokelumne River (North Fork)	Extinct	G3	G1	G	Lindley et al. (2006)
Panoche Creek	Extinct	G3	G1	G	Lindley et al. (2006)
Poso Creek	Extinct	G2	G1	G	Lindley et al. (2006)
Stanislaus River	Extinct	G2	G1	G	Lindley et al. (2006)
Tuolumne River	Extinct	G2	G1	G	Lindley et al. (2006)
Upper San Joaquin River	Extinct	G2	G1	G	Lindley et al. (2006)
H. Willamette River Valley and Lower Columbia River					
COLUMBIA RIVER					

Steelhead population	Population status	Diversity category			Reference
		Ecological diversity	Life history diversity	Genetic Diversity	
Upper Cowlitz River (Homogenized remnant winter run - maintained as combined hatchery stock of Upper Cowlitz River, Cispus River and Tilton River populations) (winter)	Remnant extant (extinct in native habitat)	H2	C1b	B3	Myers et al. (2006)
Cispus River (winter)	Extinct (absorbed into other gene pool)	H2	C1b	B3	Myers et al. (2006)
Tilton River (winter)	Extinct (absorbed into other gene pool)	H2	C1b	B3	Myers et al. (2006)
Lower Cowlitz River (winter)	Extant	H2	C1b	B3	Myers et al. (2006)
North Fork Toutle River (Green River) (winter)	Extant	H2	C1b	B3	Myers et al. (2006)
South Fork Toutle River (winter)	Extant	H2	C1b	B3	Myers et al. (2006)
Coweeman River (winter)	Extant	H2	C1b	B3	Myers et al. (2006)
Kalama River (winter)	Extant	H2	C1b	B3	Myers et al. (2006)
North Fork Lewis River (winter)	Extant	H2	C1b	B3	Myers et al. (2006)
East Fork Lewis River (winter)	Extant	H2	C1b	B3	Myers et al. (2006)
Scappoose Creek (winter)	Extant	H3	C1b	B3	Chilcote (2001)
Salmon Creek (winter)	Extinct	H3	C1b	B3	Myers et al. (2006)
Clackamas River (winter)	Extant	H2	C1b	B3	Myers et al. (2006)
Sandy River (winter)	Extant	H2	C1b	B3	Myers et al. (2006)
Washougal River (winter)	Extant	H2	C1b	B3	Myers et al. (2006)
Lower Gorge tributaries (winter)	Extant	H3	C1b	B3	Myers et al. (2006)
Upper Gorge tributaries (winter)	Extant	H3	C1b	B3	Myers et al. (2006)
Hood River (winter)	Extant	H2	C1b	B3	Myers et al. (2006)
Fifteenmile Creek (winter)	Extant	H3	C1b	A1	Interior Columbia Basin TRT (2003)
Kalama River (summer)	Extinct	H2	C1a	B3	Myers et al. (2006)
North Fork Lewis River (summer)	Extant	H2	C1a	B3	Myers et al. (2006)
East Fork Lewis River (summer)	Extant	H2	C1a	B3	Myers et al. (2006)

Steelhead population	Population status	Diversity category			Reference
		Ecological diversity	Life history diversity	Genetic Diversity	
Washougal River (summer)	Extant	H2	C1a	B3	Myers et al. (2006)
Wind River (summer)	Extant	H2	C1a	B3	Myers et al. (2006)
Hood River (summer)	Extant	H2	C1a	B3	Myers et al. (2006)
Big White Salmon River	Extinct	H2	C1	A1	Interior Columbia Basin TRT (2003)
Klickitat River	Extant	H2	C1	A1	Interior Columbia Basin TRT (2003)
WILLAMETTE RIVER					
Molalla River (winter)	Extinct	H1b	B1	B4	Myers et al. (2006)
North Santiam River (winter)	Extant	H1b	B1	B4	Myers et al. (2006)
South Santiam River (winter)	Extant	H1b	B1	B4	Myers et al. (2006)
Calapooia River (winter)	Extinct	H1b	B1	B4	Myers et al. (2006)
I. Mid-Columbia River					
Rock Creek	Extant	I	A1a	A1	Interior Columbia Basin TRT (2003, 2005)
Willow Creek	Extant	I	A1a	A1	Interior Columbia Basin TRT (2003, 2005)
Westside Deschutes River	Extant	I1b	A1a	A1	Interior Columbia Basin TRT (2003)
Eastside Deschutes River	Extant	I1b	A1a	A1	Interior Columbia Basin TRT (2003)
Crooked River	Extinct	I1b	A1a	A1	Fulton (1970), Nielsen (1950), Nehlsen (1995), Interior Columbia Basin TRT (2005)
Metolius River/Squaw Creek/Upper Deschutes River (upstream to Big Falls)	Extinct	I1b	A1a	A1	Haas and Warren (1961), Fulton (1970), Nielsen (1950), Nehlsen (1995), Interior Columbia Basin TRT (2005)
Lower mainstem John Day River	Extant	I1b	A1a	A1	Interior Columbia Basin TRT (2003)
Upper mainstem John Day River	Extant	I1b	A1a	A1	Interior Columbia Basin TRT (2003)
North Fork John Day River	Extant	I1b	A1a	A1	Interior Columbia Basin TRT (2003)
Middle Fork John Day River	Extant	I1b	A1a	A1	Interior Columbia Basin TRT (2003)
South Fork John Day River	Extant	I1b	A1a	A1	Interior Columbia Basin TRT (2003)
Umatilla River	Extant	I1b	A1a	A1	Interior Columbia Basin TRT (2003)
Touchet River	Extant	I1b	A1a	A1	Interior Columbia Basin TRT (2003)
Walla Walla River	Extant	I1b	A1a	A1	Interior Columbia Basin TRT (2003)
YAKIMA RIVER					
Upper Yakima River	Extant	I2a	A1a	A1	Interior Columbia Basin TRT (2003)
Naches River	Extant	I2b	A1a	A1	Interior Columbia Basin TRT (2003)

Steelhead population	Population status	Diversity category			Reference
		Ecological diversity	Life history diversity	Genetic Diversity	
Satus Creek	Extant	I2b	A1a	A1	Interior Columbia Basin TRT (2003, 2005)
Toppenish Creek	Extant	I2b	A1a	A1	Interior Columbia Basin TRT (2003, 2005)
Swauk/Reecer creeks	Extinct (absorbed into other gene pool)	I2b	A1a	A1	Hymer et al. (1992)
Ahtanum Creek	Extinct (absorbed into other gene pool)	I2b	A1a	A1	Fulton (1970), Hymer et al. (1992)
J. Upper-Columbia River					
Mainstem Columbia River from Priest Rapids to Kettle Falls (currently confined to Hanford Reach)	Extant	J3	A1	A2	Hymer et al. (1992)
Crab Creek	Extant	J4	A1	A2	Interior Columbia Basin TRT (2005)
Wenatchee River and lower tributaries below Lake Wenatchee (Nason/Icicle/Peshastin/Mission creeks)	Extant	J1a	A1a	A2	WDF et al. (1993), Hymer et al. (1992)
Chiwawa River	Extant	J1b	A1a	A2	WDF et al. (1993), Hymer et al. (1992)
White/Little Wenatchee rivers	Extant	J1a	A1a	A2	WDF et al. (1993), Hymer et al. (1992)
Entiat River	Extant	J1b	A1a	A2	Interior Columbia Basin TRT (2003)
Mainstem Methow River below Twisp/Twisp River/Gold/Beaver Creeks	Extant	J1b	A1a	A2	Craig and Suomela (1941), Fulton (1970), Hymer et al. (1992), WDF et al. (1993)
Upper mainstem Methow River, Early Winters/Lost creeks	Extant	J1b	A1a	A2	WDF et al. (1993), Fulton (1970), Hymer et al. (1992)
Chewuch River	Extant	J1b	A1a	A2	WDF et al. (1993), Fulton (1970), Hymer et al. (1992)
Mainstem Okanogan River below Lake Osoyoos, Salmon/Omak creeks	Extant	J2b	A1a	A2	Fulton (1970), Hymer et al. (1992)
Mainstem Okanogan River and tributaries above Lake Osoyoos to Lake Okanogan outlet (Vaseux/Inkaneep creeks)	Extant	J2a	A1a	A2	Hymer et al. (1992)
Tributaries to Lake Okanogan	Extinct	J2a	A1a	A2	Hymer et al. (1992); Slaney et al. (1996)
Lower Sanpoil River and tributaries	Extinct	J4	A1a	A2	Scholz et al. (1985)
Upper Sanpoil River and tributaries	Extinct	J4	A1a	A2	Scholz et al. (1985)

Steelhead population	Population status	Diversity category			Reference
		Ecological diversity	Life history diversity	Genetic Diversity	
West Fork Sanpoil River	Extinct	J4	A1a	A2	Scholz et al. (1985)
Lower Spokane River	Extinct	J5	A1a	A2	Gilbert and Evermann (1894), Ray (1936), Bryant and Parkhurst (1950), Fulton (1970), Scholz et al. (1985), Nehlsen et al. (1991)
Little Spokane River	Extinct	J5	A1a	A2	Scholz et al. (1985)
Lower Colville River (lower 6 km)	Extinct	J5	A1a	A2	
Lower Kettle River	Extinct	J4	A1a	A2	
K. Lower Snake River					
Tucannon River	Extant	K2b	A1a	A3	Interior Columbia Basin TRT (2003)
Asotin Creek	Extant	K2b	A1a	A3	Interior Columbia Basin TRT (2003)
Lower Snake River mainstem	Extant	K4	A1a	A3	Howell et al. (1985)
Hell's Canyon	Extant	K2b	A1a	A3	Interior Columbia Basin TRT (2003)
CLEARWATER RIVER					
Lower Clearwater River	Extant	K1	A1a	A3	Interior Columbia Basin TRT (2003)
South Fork Clearwater River	Extant	K1	A1b	A3	Interior Columbia Basin TRT (2003)
North Fork Clearwater River (only produced at Dworshak and Clearwater Hatcheries)	Remnant extant (extinct in native habitat)	K1	A1b	A4	Interior Columbia Basin TRT (2003)
Lolo Creek	Extant	K1	A1a	A3	Interior Columbia Basin TRT (2003)
Lochsa River	Extant	K1	A1	A3	Interior Columbia Basin TRT (2003)
Selway River	Extant	K1	A1b	A3	Interior Columbia Basin TRT (2003)
GRANDE RONDE RIVER					
Lower Grande Ronde River	Extant	K2b	A1a	A3	Interior Columbia Basin TRT (2003)
Joseph Creek	Extant	K2b	A1a	A3	Interior Columbia Basin TRT (2003)
Wallowa River	Extant	K2b	A1a	A3	Interior Columbia Basin TRT (2003)
Upper Grande Ronde River	Extant	K2b	A1a	A3	Interior Columbia Basin TRT (2003)
SALMON RIVER					
Little Salmon and Lower mainstem Salmon rivers	Extant	K3b	A1a	A3	Interior Columbia Basin TRT (2003)
South Fork Salmon River	Extant	K3b	A1b	A3	Interior Columbia Basin TRT (2003)

Steelhead population	Population status	Diversity category			Reference
		Ecological diversity	Life history diversity	Genetic Diversity	
Secesh River	Extant	K3b	A1b	A3	Interior Columbia Basin TRT (2003)
Chamberlain Creek	Extant	K3b	A1a	A3	Interior Columbia Basin TRT (2003)
Lower Middle Fork Salmon River	Extant	K3b	A1b	A3	Interior Columbia Basin TRT (2003)
Upper Middle Fork Salmon River	Extant	K3b	A1b	A3	Interior Columbia Basin TRT (2003)
Panther Creek	Extant	K3b	A1	A3	Interior Columbia Basin TRT (2003)
North Fork Salmon River	Extant	K3b	A1a	A3	Interior Columbia Basin TRT (2003)
Lemhi River	Extant	K3b	A1a	A3	Interior Columbia Basin TRT (2003)
Pahsimeroi River	Extant	K3b	A1a	A3	Interior Columbia Basin TRT (2003)
East Fork Salmon River	Extant	K3b	A1	A3	Interior Columbia Basin TRT (2003)
Upper mainstem Salmon River	Extant	K3b	A1a	A3	Interior Columbia Basin TRT (2003)
IMNAHA RIVER					
Imnaha River	Extant	K2b	A1a	A3	Interior Columbia Basin TRT (2003)
ABOVE HELL'S CANYON					
Pine Creek	Extinct	K2b	A1	A3	Parkhurst (1950b), Fulton (1970)
Eagle Creek (Powder River)	Extinct	K2b	A1	A3	Parkhurst (1950b), Brownell et al. (2001)
Powder River	Extinct	K2b	A1	A3	Parkhurst (1950b), Fulton (1970), Nehlsen et al. (1991), Interior Columbia Basin TRT (2005)
Burnt River	Extinct	K2b	A1	A3	Parkhurst (1950b), Fulton (1970), Nehlsen et al. (1991), Interior Columbia Basin TRT (2005)
L. Upper Snake River					
Indian/Wildhorse creeks	Extinct	L3	A1	A3	Parkhurst (1950b), Fulton (1970)
Lower tributaries Weiser River (Mann, Crane, Sage, Keithley creeks)	Extinct	L1b	A1	A3	Evermann (1896), Ray (1936), Parkhurst (1950b), Fulton (1970), Nehlsen et al. (1991)
Middle Weiser River (Pine, Rush, Johnson, Hornet creeks, Little Weiser River, Middle Fork)	Extinct	L1b	A1	A3	Evermann (1896), Ray (1936), Parkhurst (1950b), Fulton (1970), Nehlsen et al. (1991)
Upper mainstem Weiser River and upper tributaries (East Fork, West Fork)	Extinct	L1b	A1	A3	Evermann (1896), Ray (1936), Parkhurst (1950b), Fulton (1970), Nehlsen et al. (1991)
Payette River lower tributaries (below forks)	Extinct	L1b	A1	A3	Evermann (1896), Ray (1936), Parkhurst (1950b), Fulton (1970), Nehlsen et al. (1991)
North Fork Payette River and tributaries	Extinct	L1a	A1	A3	Evermann (1896), Ray (1936), Parkhurst (1950b), Fulton (1970), Nehlsen et al. (1991)

Steelhead population	Population status	Diversity category			Reference
		Ecological diversity	Life history diversity	Genetic Diversity	
Middle Fork Payette River and tributaries	Extinct	L1b	A1	A3	Ray (1936), Parkhurst (1950b), Fulton (1970), Nehlsen et al. (1991)
Lower South Fork Payette River	Extinct	L1b	A1	A3	Evermann (1896), Ray (1936), Parkhurst (1950b), Fulton (1970), Nehlsen et al. (1991)
Upper mainstem Malheur River	Extinct	L2	A1	A3	Van Duzen, (1903), Fulton (1970), Parkhurst (1950c), Nehlsen et al. (1991)
North Fork Malheur River and tributaries	Extinct	L2	A1	A3	Van Duzen, (1903), Fulton (1970), Parkhurst (1950c), Nehlsen et al. (1991)
Willow/Bully creeks (Malheur River)	Extinct	L2	A1	A3	Van Duzen, (1903), Fulton (1970), Parkhurst (1950c), Nehlsen et al. (1991)
Mores Creek (Boise River)	Extinct	L1b	A1	A3	Gilbert and Evermann (1894), Parkhurst (1950c), Fulton (1970), Nehlsen et al. (1991)
South Fork Boise River	Extinct	L1b	A1	A3	Gilbert and Evermann (1894), Parkhurst (1950c), Fulton (1970), Nehlsen et al. (1991)
Middle Fork Boise River	Extinct	L1b	A1	A3	Gilbert and Evermann (1894), Parkhurst (1950c), Fulton (1970), Nehlsen et al. (1991)
North Fork Boise River	Extinct	L1b	A1	A3	Gilbert and Evermann (1894), Parkhurst (1950c), Fulton (1970), Nehlsen et al. (1991)
Lower Owyhee River	Extinct	L2	A1	A3	Gilbert and Evermann (1894), Parkhurst (1950c), Fulton (1970), Nehlsen et al. (1991), Interior Columbia Basin TRT (2005)
Upper Owyhee River	Extinct	L2	A1	A3	Gilbert and Evermann (1894), Parkhurst (1950c), Fulton (1970), Nehlsen et al. (1991), Interior Columbia Basin TRT (2005)
Small tributaries between Owyhee and Bruneau rivers (Sucker/Jump/Sinker/Castle/Birch/ Shoo-Fly creeks)	Extinct	L2	A1	A3	Parkhurst (1950c)
Mainstem Bruneau River	Extinct	L2	A1	A3	Gilbert and Evermann (1894), Parkhurst (1950c), Fulton (1970), Nehlsen et al. (1991)
Upper tributaries Bruneau River	Extinct	L2	A1	A3	Gilbert and Evermann (1894), Parkhurst (1950c), Fulton (1970), Nehlsen et al. (1991)
Small tributaries between Bruneau and Malad (Big Wood) rivers (Canyon Creek)	Extinct	L2	A1	A3	Parkhurst (1950c), Fulton (1970)
Salmon Falls Creek	Extinct	L3	A1	A3	Gilbert and Evermann (1894), Parkhurst (1950c), Fulton (1970)

Steelhead population	Population status	Diversity category			Reference
		Ecological diversity	Life history diversity	Genetic Diversity	
Rock Creek	Extinct	L3	A1	A3	Parkhurst (1950c), Fulton (1970)
M. Columbia River Headwaters					
Pend Oreille River (below Albeni Falls)	Extinct	M2	A1	A2	Gilbert and Evermann (1894), Bryant and Parkhurst (1950), Fulton (1970), Scholz et al. (1985), Nehlsen et al. (1991), Interior Columbia Basin TRT (2005)
Kootenai River (below Bonnington Falls)	Extinct	M1a	A1	A5	Behnke (1992), Interior Columbia Basin TRT (2005)
Slocan River	Extinct	M1a	A1	A5	Behnke (1992)
Mainstem Columbia River and tributaries from above Kettle Falls to Upper Arrow Lake	Extinct	M3a	A1	A5	Behnke (1992), Fulton (1970)
Mainstem Columbia River and tributaries from above Upper Arrow Lake to confluence with Canoe River	Extinct	M3a	A1	A5	Behnke (1992)
Canoe River	Extinct	M3a	A1	A5	Behnke (1992)
Mainstem Columbia River and tributaries above confluence with Canoe River (Spillimacheen River, etc.)	Extinct	M3a	A1	A5	Behnke (1992)

Appendix Table 2. Proposed historic demographically independent Chinook salmon populations sorted by major (level-I) ecological region. Each population is characterized according to its perceived current population status and historic biodiversity. Ecological, life history and genetic diversity are characterized using the hierarchical diversity matrix (see Appendix S1).

Chinook salmon population	Population status	Diversity category			Reference
		Ecological diversity	Life history diversity	Genetic Diversity	
A. Georgia Basin					
STRAIT OF GEORGIA (Mainland)					
Cheakamus / Mamquam rivers	Extant	A2b	Da	A2	Hancock and Marshall (1986)
Squamish River, Ashlu Creek	Extant	A2b	Da	A2	Hancock and Marshall (1986)
Kilte River	Extant	A2b	Da	A2	Hancock and Marshall (1985c)
Brem River	Extant	A2b	Da	A2	Hancock and Marshall (1985c)
Toba River	Extant	A2b	Da	A2	Hancock and Marshall (1985c)
Tzoonie River	Extinct	A2b	Da	A2	Marshall et al. (1976a), Brownell et al. (2001)
Capilano River	Extant	A2b	Da	A2	Hancock and Marshall (1986), DFO (1999)
STRAIT OF GEORGIA (Vancouver Island)					
Little Qualicum River	Extant	A2	Da	A2	Brown et al. (1977)
Puntledge River (summer)	Extant	A2	Db	A2	Brown et al. (1977)
Puntledge River (fall)	Extant	A2	Da	A2	Brown et al. (1977)
Campbell / Quinsam rivers	Extant	A1	Da	A2	Marshall et al. (1977a)
Nanaimo River (early)	Extant	A1	Db	A2	Marshall et al. (1976b)
Nanaimo River (late)	Extant	A1	Da	A2	Marshall et al. (1976b)
Cowichan River (spring)	Extinct	A1	Db	A2	Ricker (1972)
Cowichan / Koksilah rivers (fall)	Extant	A1	Da	A2	Marshall et al. (1976b)
LOWER FRASER RIVER					
Chilliwack River (fall, white flesh)	Extant	A2	Da	A1	Marshall et al. (1980b), DFO (1999), Candy et al. (2002)
Coquitlam River (fall)	Extinct	A2a	Da	A1	Candy et al. (2002)
Stave River (fall)	Extinct	A2a	Da	A1	Candy et al. (2002)
Pitt River (fall)	Extant	A2a	Da	A1	Hancock and Marshall (1985a), DFO (1999)
Alouette River (fall)	Extinct	A2a	Da	A1	Conlin et al. (2000), Brownell et al. (2001), Candy et al. (2002)
Chehalis River (fall, white flesh)	Extinct	A2a	Da	A1	Hancock and Marshall (1985b), Candy et al. (2002)

Chinook salmon population	Population status	Diversity category			Reference
		Ecological diversity	Life history diversity	Genetic Diversity	
Harrison River (fall, white flesh)	Extant	A2a	Da	A1	Hancock and Marshall (1985b), Candy et al. (2002)
Maria Slough (summer, red flesh)	Extant	A1	Db	A1	Hancock and Marshall (1985b), DFO (1999), Candy et al. (2002)
Birkenhead River (spring, red flesh)	Extant	A2	Db	A1	Brown et al. (1979a), Candy et al. (2002)
PUGET SOUND					
North Fork Nooksack River (spring)	Extant	A2a	Db	B1	Ruckelshaus et al. (2006)
South Fork Nooksack River (spring)	Extant	A2a	Db	B1	Ruckelshaus et al. (2006)
Nooksack River (fall)	Extinct	A2a	Da	B1	Williams et al. (1975), WDF et al. (1993)
Lower Skagit River (fall)	Extant	A2a	Da	B2a	Ruckelshaus et al. (2006)
Upper Skagit River (summer)	Extant	A2a	Da	B2a	Ruckelshaus et al. (2006)
Lower Sauk River (summer)	Extant	A2a	Da	B2a	Ruckelshaus et al. (2006)
Upper Sauk River (spring)	Extant	A2a	Db	B2a	Ruckelshaus et al. (2006)
Suiattle River (spring)	Extant	A2a	Db	B2a	Ruckelshaus et al. (2006)
Upper Cascade River (spring)	Extant	A2a	Db	B2a	Ruckelshaus et al. (2006)
North Fork Stillaguamish River (summer)	Extant	A2a	Db	B2a	Ruckelshaus et al. (2006)
South Fork Stillaguamish River (fall)	Extant	A2a	Da	B2a	Ruckelshaus et al. (2006)
Stillaguamish River (spring)	Extinct	A2a	Db	B2	Nehlsen et al. (1991), WDF et al. (1993)
Skykomish River	Extant	A2a	D	B2a	Ruckelshaus et al. (2006)
Snoqualmie River	Extant	A2a	D	B2a	Ruckelshaus et al. (2006)
Snohomish River (spring)	Extinct	A2a	Db	B2	Nehlsen et al. (1991), WDF et al. (1993)
Cedar River	Extant	A2a	D	B2a	Ruckelshaus et al. (2006)
Sammamish River	Extant	A1a	D	B2a	Ruckelshaus et al. (2006)
Duwamish/Green rivers	Extant	A2a	D	B2a	Ruckelshaus et al. (2006)
Duwamish/Green rivers (spring)	Extinct	A2a	Db	B2	Nehlsen et al. (1991)
Puyallup River	Extant	A2a	D	B2b	Ruckelshaus et al. (2006)
White River	Extant	A2a	D	B2b	Ruckelshaus et al. (2006)
Puyallup River (spring)	Extinct	A2a	Db	B2	Williams et al. (1975), Nehlsen et al. (1991)
Nisqually River	Extant	A2a	D	B2b	Ruckelshaus et al. (2006)
Nisqually River (spring/summer)	Extinct	A2a	Db	B2	Williams et al. (1975), Nehlsen et al. (1991), ONRC (1995)
HOOD CANAL					

Chinook salmon population	Population status	Diversity category			Reference
		Ecological diversity	Life history diversity	Genetic Diversity	
Skokomish River	Extant	A1a	D	B2b	Ruckelshaus et al. (2006)
Skokomish River (spring/summer)	Extinct	A2a	Db	B	Deschamps (1954), Nehlsen et al. (1991), WDF et al. (1993)
Mid-Hood Canal Rivers (Hamma Hamma/Duckabush/ Dosewallips rivers) (fall)	Extant	A2b	Da	B2b	Ruckelshaus et al. (2006)
Dosewallips/Duckabush rivers (spring)	Extinct	A2b	Db	B	Williams et al. (1975), Nehlsen et al. (1991), ONRC (1995)
STRAIT OF JUAN DE FUCA					
Dungeness River	Extant	A2b	D	B2b	Ruckelshaus et al. (2006)
Elwha River	Extant	A2b	Da	B3	Ruckelshaus et al. (2006)
Elwha River (spring)	Extinct	A2b	Db	B3	Nehlsen et al. (1991), WDF et al. (1993)
B. Coastal Rainforest					
WEST COAST VANCOUVER ISLAND					
San Juan / Gordan rivers	Extant	B1b	Ea	A3	Marshall et al. (1977b)
Nitinat/Klanawa rivers	Extant	B1a	Ea	A3	Brown et al. (1979b), Teel et al. (2000)
Barkley Sound (Sarita/Franklin/ Nahmint/Henderson/Effingham/ Torquart rivers)	Extant	B1b	Ea	A3	Brown et al. (1979b)
Somass River	Extant	B2a	Ea	A3	Brown et al. (1979b), Teel et al. (2000)
Tofino Inlet (lower Kennedy River, Tofino/Tranquil creeks)	Extant	B1b	Ea	A3	Brown et al. (1979c)
Mid-Clayoquot Sound (Bedwell/Cypre/ Moyeha rivers)	Extant	B1b	Ea	A3	Brown et al. (1979c)
Upper Clayoquot Sound (Megin/ Sydney/Ice rivers, Watta Creek)	Extant	B1b	Ea	A3	Brown et al. (1979c)
Muchalat Inlet (Burman/Gold/ Muchalat/Oktwanch/Jacklah/Mooyah rivers, Kleeptee Creek)	Extant	B2b	Ea	A3	Brown et al. (1979e)
Tlupani Inlet (Conuma/Tlupana/ Sucwoa rivers, Deserted/Canton creeks)	Extant	B1b	Ea	A3	Brown et al. (1979e), Teel et al. (2000)
Tahsis Inlet (Leiner/Tsowwin/Tahsis rivers)	Extant	B1b	Ea	A3	Brown et al. (1979e)

Chinook salmon population	Population status	Diversity category			Reference
		Ecological diversity	Life history diversity	Genetic Diversity	
Esperanza Inlet (Zeballos/Little Zeballos/Park rivers, Mamat/Espinoza creeks)	Extant	B1b	Ea	A3	Brown et al. (1979e)
Kyuquot Sound (Artlish/Kaouk/Tahsish/Kashutl/Kauwinch rivers, Narrowgut/Amai creeks)	Extant	B1b	Ea	A3	Marshall et al. (1980a)
Checleset Bay (Malksope/Quoukinsh/Power/Nasparti/Battle rivers, McKay Cove/Chamiss/Clanninick creeks)	Extant	B1b	Ea	A3	Marshall et al. (1980a)
Cape Cook to Cape Scott (Marble/Klaskish/San Josef rivers, Mahatta/Cayaghle/Utluh/Colonial/East creeks)	Extant	B1b	Ea	A3	Brown et al. (1979d)
OLYMPIC PENINSULA					
Pysht River (fall)	Extinct	B1b	Ea	C1a	Nehlsen et al. (1991)
Hoko River (fall)	Extant	B1b	Ea	C1a	WDF et al. (1993)
	Remnant extant (extinct in native habitat)				
Sooes River (fall)		B1b	Ea	C1a	WDF et al. (1993)
Ozette River (fall)	Extinct	B1a	Ea	C1a	Nehlsen et al. (1991), WDF et al. (1993)
Sol Duc River (spring)	Extant	B2a	Eb	C1a	WDF et al. (1993)
Sol Duc River (summer)	Extant	B2a	Eb	C1a	WDF et al. (1993)
Sol Duc River (fall)	Extant	B2a	Ea	C1a	WDF et al. (1993)
Quillayute/Bogachiel rivers (summer)	Extant	B2b	Eb	C1a	WDF et al. (1993)
Quillayute/Bogachiel rivers (fall)	Extant	B2b	Ea	C1a	WDF et al. (1993)
Calawah River (summer)	Extant	B2b	Eb	C1a	WDF et al. (1993)
Calawah River (fall)	Extant	B2b	Ea	C1a	WDF et al. (1993)
Dickey River (fall)	Extant	B1a	Ea	C1a	WDF et al. (1993)
Hoh River (spring/summer)	Extant	B2b	Eb	C1a	WDF et al. (1993)
Hoh River (fall)	Extant	B2b	Ea	C1a	WDF et al. (1993)
Queets River (spring/summer)	Extant	B2b	Eb	C1a	WDF et al. (1993)
Queets River (fall)	Extant	B2b	Ea	C1a	WDF et al. (1993)
Clearwater River (spring/summer)	Extant	B1b	Eb	C1a	

Chinook salmon population	Population status	Diversity category			Reference
		Ecological diversity	Life history diversity	Genetic Diversity	
Clearwater River (fall)	Extant	B1b	Ea	C1a	
Quinault River (spring/summer)	Extant	B2a	Eb	C1a	WDF et al. (1993)
Quinault River (fall)	Extant	B2a	Ea	C1a	WDF et al. (1993)
C. Northern Coastal (Southwest Washington to Cape Blanco)					
Humptulips River (fall)	Extant	C2b	Ea	C1b	Myers et al. (1998)
Hoquiam River (fall)	Extant	C2b	Ea	C1b	Myers et al. (1998)
Wishkah River (fall)	Extant	C2b	Ea	C1b	Myers et al. (1998)
Upper mainstem Chehalis River (spring)	Extant	C2a	Eb	C1b	WDF et al. (1993)
Wynoochee River (spring)	Extinct	C2a	Eb	C1a	WDF et al. (1993), ONRC (1995)
Wynoochee River (fall)	Extant	C2a	Ea	C1b	WDF et al. (1993)
Skookumchuck River (spring)	Extant	C2a	Eb	C1b	WDF et al. (1993)
Newaukum River (spring)	Extant	C2a	Ea	C1b	WDF et al. (1993)
Satsop River (summer)	Extant	C2a	Eb	C1b	WDF et al. (1993)
Satsop River (fall)	Extant	C2a	Ea	C1b	WDF et al. (1993)
Mainstem Chehalis River (fall)	Extant	C2a	Ea	C1b	WDF et al. (1993)
Willapa Bay (North/Willapa/Palix/ Nemah/Naselle rivers) (fall)	Extant	C2b	Ea	C1b	WDF et al. (1993)
Fall River (North River) (early-fall)	Extant	C2b	Ea	C1b	WDF et al. (1993)
COLUMBIA RIVER					
Youngs Bay (fall)	Extinct	C1	Da	G2	Myers et al. (2006)
Grays River (fall)	Extant	C1	Da	G2	Myers et al. (2006)
Big Creek (fall)	Extinct	C1	Da	G2	Myers et al. (2006)
Elochoman River (fall)	Extinct	C1	Da	G2	Myers et al. (2006)
Clatskanie River (fall)	Extinct	C1	Da	G2	Myers et al. (2006)
Mill Creek (fall)	Extinct	C1	Da	G2	Myers et al. (2006)
OREGON					
Nehalem River (summer)	Extant	C2b	Eb	C2a	Nicholas and Hankin (1988), Kostow (1995), Myers et al. (1998)
Mainstem Nehalem/North Fork Nehalem/Salmonberry rivers (fall)	Extant	C2b	Ea	C2a	Nicholas and Hankin (1988), Kostow (1995), Myers et al. (1998), Jacobs et al. (2000)

Chinook salmon population	Population status	Diversity category			Reference
		Ecological diversity	Life history diversity	Genetic Diversity	
Kilchis/Wilson/Trask rivers (spring)	Extant	C2b	Eb	C2a	Nicholas and Hankin (1988), Kostow (1995), Myers et al. (1998)
Miami/Kilchis/Wilson/Trask/ Tillamook rivers (fall)	Extant	C2b	Ea	C2a	Nicholas and Hankin (1988), Kostow (1995), Myers et al. (1998), Jacobs et al. (2000)
Nestucca River (spring)	Extant	C2b	Eb	C2a	Nicholas and Hankin (1988), Kostow (1995), Myers et al. (1998)
Nestucca/Little Nestucca rivers (fall)	Extant	C2b	Ea	C2a	Nicholas and Hankin (1988), Kostow (1995), Myers et al. (1998), Jacobs et al. (2000)
Siletz River (spring)	Extant	C2b	Eb	C2b	Nicholas and Hankin (1988), Kostow (1995), Myers et al. (1998)
Siletz River (fall)	Extant	C2b	Ea	C2b	Nicholas and Hankin (1988), Kostow (1995), Myers et al. (1998), Jacobs et al. (2000)
Yaquina River (fall)	Extant	C2b	Ea	C2b	Kostow (1995), Myers et al. (1998), Jacobs et al. (2000)
Alsea River (spring)	Extant	C2b	Eb	C2b	Nicholas and Hankin (1988), Kostow (1995), Myers et al. (1998)
Alsea River (fall)	Extant	C2b	Ea	C2b	Nicholas and Hankin (1988), Kostow (1995), Myers et al. (1998), Jacobs et al. (2000)
Siuslaw River (spring)	Extant	C2b	Eb	C2b	Nicholas and Hankin (1988), Kostow (1995), Myers et al. (1998)
Siuslaw River (fall)	Extant	C2b	Ea	C2b	Nicholas and Hankin (1988), Kostow (1995), Myers et al. (1998), Jacobs et al. (2000)
Smith River (fall)	Extant	C2b	Ea	C2c	Nicholas and Hankin (1988), Kostow (1995), Myers et al. (1998)
Lower mainstem Umpqua River (fall)	Extant	C2a	Ea	C2c	Nicholas and Hankin (1988), Kostow (1995), Myers et al. (1998)
North Umpqua River (spring)	Extant	C2a	Eb	C2c	Van Dusen (1903), Nicholas and Hankin (1988), Kostow (1995), Myers et al. (1998)
North Umpqua River (fall)	Extant	C2a	Ea	C2c	Nicholas and Hankin (1988), Kostow (1995), Myers et al. (1998)
South Umpqua River (spring)	Extant	C2a	Eb	C2c	Nicholas and Hankin (1988), Kostow (1995), Myers et al. (1998)
South Umpqua River (fall)	Extant	C2a	Ea	C2c	Nicholas and Hankin (1988), Kostow (1995), Myers et al. (1998)
Coos/Millicoma rivers (fall)	Extant	C2b	Ea	C2b	Nicholas and Hankin (1988), Kostow (1995), Myers et al. (1998), Jacobs et al. (2000)

Chinook salmon population	Population status	Diversity category			Reference
		Ecological diversity	Life history diversity	Genetic Diversity	
Coquille River (spring)	Extant	C4	Eb	C2b	Nicholas and Hankin (1988), Kostow (1995), Myers et al. (1998)
Coquille River except South Fork (fall)	Extant	C4	Ea	C2b	Nicholas and Hankin (1988), Kostow (1995), Myers et al. (1998), Jacobs et al. (2000)
South Fork Coquille River (fall)	Extant	C4	Ea	C2b	Nicholas and Hankin (1988), Kostow (1995), Myers et al. (1998)
Floras Creek/Sixes/Elk rivers (fall)	Extant	C4	Ea	C2d	Nicholas and Hankin (1988), Kostow (1995), Myers et al. (1998), Jacobs et al. (2000)
D. Klamath Mountains Province					
Upper Rogue River (spring)	Extant	D1	F2b	D1	Nicholas and Hankin (1988), Kostow (1995), Myers et al. (1998)
Lower Mainstem Rogue/Illinois rivers (fall)	Extant	D1	F2a	D1	Nicholas and Hankin (1988), Kostow (1995), Myers et al. (1998), Jacobs et al. (2000)
Middle Mainstem Rogue/Applegate rivers (fall)	Extant	D1	F2a	D1	Nicholas and Hankin (1988), Kostow (1995), Myers et al. (1998), Jacobs et al. (2000)
Upper Rogue River (fall)	Extant	D1	F2a	D1	Nicholas and Hankin (1988), Kostow (1995), Myers et al. (1998), Jacobs et al. (2000)
Hunter Creek, Pistol River (fall)	Extant	D3	F2a	D1	Nicholas and Hankin (1988), Kostow (1995), Myers et al. (1998), Jacobs et al. (2000)
Chetco/Winchuck rivers (fall)	Extant	D3	F2a	D1	Nicholas and Hankin (1988), Kostow (1995), Myers et al. (1998), Jacobs et al. (2000)
North/Middle/South Forks Smith River (spring)	Extant	D3	F2b	D1	Myers et al. (1998)
Smith River (fall)	Extant	D3	F2a	D1	Myers et al. (1998)
KLAMATH RIVER					
Middle Klamath River independent tributaries (Clear/Elk/Dillon/Indian creeks) (spring)	Extinct	D2	F1b	E1	Kier Associates (1991), ONRC (1995)
Salmon River, Wooley Creek (spring)	Extant	D2	F1b	E1	Kier Associates (1991), ONRC (1995), Myers et al. (1998)
Scott River (spring)	Extinct	D2	F1b	E1	ONRC (1995)
Shasta River (spring)	Extinct	D2	F1b	E1	ONRC (1995)

Chinook salmon population	Population status	Diversity category			Reference
		Ecological diversity	Life history diversity	Genetic Diversity	
Williamson River (spring)	Extinct (original population existence uncertain)	D2	F1b	E2	Nehlsen et al. (1991), ONRC (1995), Moyle et al. (1995), Brownell et al. (2001), Hamilton et al. (2005)
Sprague River (spring)	Extinct (original population existence uncertain)	D2	F1b	E2	Nehlsen et al. (1991), ONRC (1995), Moyle et al. (1995), Brownell et al. (2001), Hamilton et al. (2005)
Wood River (spring)	Extinct (original population existence uncertain)	D2	F1b	E2	Nehlsen et al. (1991), ONRC (1995), Moyle et al. (1995), Hamilton et al. (2005)
Lower Klamath River tributaries below Trinity River confluence (Blue Creek) (fall)	Extant	D2	F1a	E1	Leidy and Leidy (1984), Kier Associates (1991), Myers et al. (1998)
Middle Klamath River tributaries from confluence with Trinity River to Scott River (fall)	Extant	D2	F1a	E	Leidy and Leidy (1984), Kier Associates (1991), Myers et al. (1998)
Klamath River and tributaries above Scott River (fall)	Extant	D2	F1a	E2	Leidy and Leidy (1984), Kier Associates (1991), Myers et al. (1998)
Salmon River (fall)	Extant	D2	F1a	E1	Kier Associates (1991), Myers et al. (1998)
Scott River (fall)	Extant	D2	F1a	E1	Kier Associates (1991), Myers et al. (1998)
Shasta River (fall)	Extant	D2	F1a	E1	Snyder (1931), Kier Associates (1991), Myers et al. (1998)
TRINITY RIVER					
South Fork Trinity River, Hayfork Creek (spring)	Extant	D2	F1b	E1	Kier Associates (1991), Myers et al. (1998)
Middle Trinity River and tributaries (New River/North Fork) (spring)	Extant	D2	F1b	E1	Kier Associates (1991), Myers et al. (1998)
Upper Trinity River and tributaries (Stuart Fork/East Fork Trinity rivers, Coffee Creek) (spring)	Remnant extant (extinct in native habitat)	D2	F1b	E1	Moffett and Smith (1950), Kier Associates (1991), ONRC (1995)

Chinook salmon population	Population status	Diversity category			Reference
		Ecological diversity	Life history diversity	Genetic Diversity	
Lower Mainstem Trinity River and tributaries (from Klamath River confluence to South Fork Trinity River) (fall)	Extant	D2	F1a	E1	Kier Associates (1991), Myers et al. (1998)
South Fork Trinity River (fall)	Extant	D2	F1a	E1	Kier Associates (1991), Myers et al. (1998)
Middle Mainstem Trinity River and tributaries (from South Fork to Junction City) (fall)	Extant	D2	F1a	E1	Kier Associates (1991), Myers et al. (1998)
Upper Mainstem Trinity River (above Junction City) (Trinity River Hatchery) (fall)	Remnant extant (extinct in native habitat)	D2	F1a	E2	Moffett and Smith (1950), Kier Associates (1991), Myers et al. (1998)
E. Northern California (South of Klamath River to San Lorenzo River)					
Redwood Creek (fall)	Extant	E1	F2a	D2	Bjorkstedt et al. (2005)
Redwood Creek (spring)	Extinct	E1	F2b	D2	Bjorkstedt et al. (2005)
Mad River (fall)	Extant	E1	F2a	D2	Bjorkstedt et al. (2005)
Mad River (spring)	Extinct	E1	F2b	D2	Bjorkstedt et al. (2005)
Lower Eel River (fall)	Extant	E1	F2a	D2	Bjorkstedt et al. (2005)
Upper Eel River (fall)	Extant	E1	F2a	D2	Bjorkstedt et al. (2005)
Van Duzen River (spring)	Extinct	E1	F2b	D2	Bjorkstedt et al. (2005)
North Fork Eel River (spring)	Extinct	E1	F2b	D2	Bjorkstedt et al. (2005)
Middle Fork Eel River (spring)	Extinct	E1	F2b	D2	Bjorkstedt et al. (2005)
Upper Eel River (spring)	Extinct	E1	F2b	D2	Bjorkstedt et al. (2005)
Mattole River (fall)	Extant	E1	F2a	D2	Bjorkstedt et al. (2005)
Ten Mile River (fall)	Extant	E2	F2a	D2	Bjorkstedt et al. (2005)
Noyo River (fall)	Extant	E2	F2a	D2	Bjorkstedt et al. (2005)
Big River (fall)	Extant	E2	F2a	D2	Bjorkstedt et al. (2005)
Navarro River (fall)	Extant	E2	F2a	D2	Bjorkstedt et al. (2005)
Russian River (fall)	Extant	E2	F2a	D2	Bjorkstedt et al. (2005)
Golden Gate to Monterey Bay (San Lorenzo River, etc.)	Extinct	E2	F2a	D2	Snyder (1914), Myers et al. (1998)
F. Southern California					

Chinook salmon population	Population status	Diversity category			Reference
		Ecological diversity	Life history diversity	Genetic Diversity	
Pajaro River	Extinct	F2	F2a	D2	Snyder (1914)
South of Monterey Peninsula (Ventura River, Arroyo Grande/San Luis Obispo creeks, etc.)	Extinct	F2	F2a	D2	Jordan and Gilbert (1881, 1882), Jordan (1894, 1895), Jordan and Evermann (1896), Reynolds et al. (1990)
G. California Central Valley					
SACRAMENTO RIVER					
McCloud River (Homogenized remnant winter run - combined McCloud, Pit, Upper Sacramento rivers and Hat Creek) (displaced to below Shasta Dam)	Remnant extant (extinct in native habitat)	G1a	Ga	F1	Lindley et al. (2004)
McCloud River (spring)	Extinct	G1a	Gb	F2	Lindley et al. (2004)
McCloud River (fall)	Extinct	G1a	Ga	F3	Yoshiyama et al. (2000, 2001)
Pit and Hat rivers (winter)	Extinct (absorbed into other gene pool)	G1a	Ga	F1	Lindley et al. (2004)
Pit and Hat rivers (spring)	Extinct	G1a	Gb	F2	Lindley et al. (2004)
Pit River (fall)	Extinct	G1a	Ga	F3	Yoshiyama et al. (2000, 2001)
Upper (Little) Sacramento River (winter)	Extinct (absorbed into other gene pool)	G1a	Ga	F1	Lindley et al. (2004)
Upper (Little) Sacramento River (spring)	Extinct	G1a	Gb	F2	Lindley et al. (2004)
Upper (Little) Sacramento River (fall)	Extinct	G1a	Ga	F3	Yoshiyama et al. (2000, 2001)
Upper Sacramento River (late fall)	Extinct	G1a	Ga	F3	Yoshiyama et al. (2000, 2001)
Clear Creek (fall)	Extant	G1a	Ga	F3	Yoshiyama et al. (2000, 2001)
Cottonwood Creek (fall)	Extant	G1a	Ga	F3	Myers et al. (1998), Yoshiyama et al. (2000, 2001)
Battle Creek (winter)	Extinct	G1a	Ga	F1	Lindley et al. (2004)
Battle Creek (spring)	Extinct	G1a	Gb	F2	Lindley et al. (2004)
Battle Creek (fall)	Extant	G1b	Ga	F3	Myers et al. (1998)

Chinook salmon population	Population status	Diversity category			Reference
		Ecological diversity	Life history diversity	Genetic Diversity	
Cow Creek (fall)	Extant	G1b	Ga	F3	Yoshiyama et al. (2000, 2001)
Antelope Creek (fall)	Extinct	G1a	Ga	F3	Yoshiyama et al. (2000, 2001)
Antelope Creek (late fall)	Extinct	G1a	Ga	F3	Yoshiyama et al. (2000, 2001)
Mill and Deer creeks (spring)	Extant	G1b	Gb	F2	Lindley et al. (2004)
Mill Creek (fall)	Extant	G1b	Ga	F3	Myers et al. (1998), Yoshiyama et al. (2000, 2001)
Deer Creek (fall)	Extant	G1b	Ga	F3	Myers et al. (1998), Yoshiyama et al. (2000, 2001)
Stony Creek (fall)	Extinct	G1c	Ga	F3	Yoshiyama et al. (2000, 2001)
Butte Creek (spring)	Extant	G1b	Gb	F2	Lindley et al. (2004)
Butte Creek (fall)	Extant	G1b	Ga	F3	Yoshiyama et al. (2000, 2001)
North Fork/ Feather River -(Homogenized remnant spring run - combined North Fork, West Branch, Middle Fork, South Fork populations (spawn below Oroville Dam and in Feather River Hatchery) (spring)	Remnant extant (extinct in native habitat)	G1b	Gb	F2	Lindley et al. (2004)
West Branch Feather River (spring)	Extinct (absorbed into other gene pool)	G1b	Gb	F2	Lindley et al. (2004)
Middle Fork Feather River (spring)	Extinct (absorbed into other gene pool)	G1b	Gb	F2	Lindley et al. (2004)
South Fork Feather River (spring)	Extinct (absorbed into other gene pool)	G1b	Gb	F2	Lindley et al. (2004)
Feather River (fall)	Extant	G1b	Ga	F3	Myers et al. (1998), Yoshiyama et al. (2001)
Yuba River (spring)	Extant	G1b	Gb	F2	Lindley et al. (2004)
Yuba River (fall)	Extant	G1b	Ga	F3	Myers et al. (1998), Yoshiyama et al. (2001)
Bear River (fall)	Extinct	G1b	Ga	F3	Yoshiyama et al. (2000, 2001)
Cache/Putah creeks (fall)	Extinct	G1c	Ga	F3	Yoshiyama et al. (2000, 2001)
North Fork and Middle Fork American River (spring)	Extinct	G3	Gb	F2	Lindley et al. (2004)
South Fork American River (spring)	Extinct	G3	Gb	F2	Lindley et al. (2004)

Chinook salmon population	Population status	Diversity category			Reference
		Ecological diversity	Life history diversity	Genetic Diversity	
American River (fall)	Extant	G2	Ga	F3	Myers et al. (1998), Yoshiyama et al. (2000, 2001)
American River (late fall)	Extinct	G3	Gb	F2	Nehlsen et al. (1991), ONRC (1995), Yoshiyama et al. (2000, 2001), Brownell et al. (2001)
SAN JOAQUIN RIVER					
Mokelumne River (spring)	Extinct	G3	Gb	F2	Lindley et al. (2004)
Mokelumne River (fall)	Extant	G3	Ga	F3	Myers et al. (1998), Yoshiyama et al. (2001)
Mokelumne River (late fall)	Extinct	G3	Ga	F3	Yoshiyama et al. (2000, 2001)
Cosumnes River (fall)	Extinct	G3	Ga	F3	Myers et al. (1998), Yoshiyama et al. (2000, 2001)
Stanislaus River (spring)	Extinct	G3	Gb	F2	Lindley et al. (2004)
Stanislaus River (fall)	Extant	G3	Ga	F3	Myers et al. (1998)
Tuolumne River (spring)	Extinct	G3	Gb	F2	Lindley et al. (2004)
Tuolumne River (fall)	Extant	G3	Ga	F3	Myers et al. (1998)
Merced River (spring)	Extinct	G2	Gb	F2	Lindley et al. (2004)
Merced River (fall)	Extant	G2	Ga	F3	Myers et al. (1998)
Middle and Upper San Joaquin River (spring)	Extinct	G2	Gb	F2	Lindley et al. (2004)
Upper San Joaquin River (fall)	Extinct	G2	Ga	F3	ONRC (1995), Yoshiyama et al. (2000, 2001)
Upper mainstem San Joaquin River (late fall)	Extinct	G2	Ga	F3	Yoshiyama et al. (2000, 2001)
Kings River (and Tulare Lake) (fall)	Extinct	G2	Ga	F3	Yoshiyama et al. (2000, 2001)
H. Willamette River Valley and Lower Columbia River					
COLUMBIA RIVER					
Upper Cowlitz River (Homogenized remnant spring run - maintained as combined hatchery stock of Upper Cowlitz River, Cispus River and Tilton River populations) (spring)	Remnant extant (extinct in native habitat)	H2	Db	G	Myers et al. (2006)

Chinook salmon population	Population status	Diversity category			Reference
		Ecological diversity	Life history diversity	Genetic Diversity	
Cispus River (spring)	Extinct (absorbed into other gene pool)	H2	Db	G	Myers et al. (2006)
Tilton River (spring)	Extinct (absorbed into other gene pool)	H2	Db	G	Myers et al. (2006)
Toutle River (spring)	Extinct	H2	Db	G	Myers et al. (2006)
Kalama River (spring)	Extinct	H2	Db	G	Myers et al. (2006)
Lewis River (displaced below Merwin Dam - highly modified by out of basin transplants) (spring)	Remnant extant (extinct in native habitat)	H2	Db	G	Myers et al. (2006)
Sandy River (spring)	Extant	H2	Db	G1	Myers et al. (2006)
Big White Salmon River (spring)	Extinct	H2	Db	G1	Myers et al. (2006)
Hood River (spring)	Extinct	H2	Db	G1	Myers et al. (2006)
Klickitat River (spring)	Extant	H2	Db	G1	Nehlsen et al. (1991), WDF et al. (1993), Marshall et al. (1995)
Scappoose Creek (fall)	Extinct	H3	Da	G2	Myers et al. (2006)
Upper Cowlitz River (fall)	Extant	H2	Da	G2	Myers et al. (2006)
Lower Cowlitz River (fall)	Extant	H2	Da	G2	Myers et al. (2006)
Toutle River (fall)	Extant	H2	Da	G2	Myers et al. (2006)
Coweeman River (fall)	Extant	H2	Da	G2	Myers et al. (2006)
Kalama River (fall)	Extant	H2	Da	G2	Myers et al. (2006)
Lewis River Early (early fall)	Extant	H3	Da	G2	Myers et al. (2006)
Salmon Creek (early fall)	Extant	H3	Da	G2	Myers et al. (2006)
Lewis River Late (late fall)	Extant	H2	Da	G2	Myers et al. (2006)
Clackamas River (fall)	Extinct	H2	Da	G2	Myers et al. (2006)
Washougal River (fall)	Extant	H2	Da	G1	Myers et al. (2006)
Sandy River Early (early fall)	Extant	H2	Da	G2	Myers et al. (2006)
Sandy River Late (late fall)	Extant	H2	Da	G2	Myers et al. (2006)

Chinook salmon population	Population status	Diversity category			Reference
		Ecological diversity	Life history diversity	Genetic Diversity	
Lower Gorge Tributaries (tule fall)	Extant	H3	Da	G1	Myers et al. (2006)
Upper Gorge Tributaries (tule fall)	Extant	H3	Da	G1	Myers et al. (2006)
Big White Salmon River (tule fall)	Extant	H2	Da	G1	Myers et al. (2006)
Hood River (fall)	Extant	H2	Da	G1	Myers et al. (2006)
WILLAMETTE RIVER					
Clackamas River (spring)	Extinct	H2	Db	G	Myers et al. (2006)
Molalla River (spring)	Extinct	H1	C	H	Myers et al. (2006)
North Santiam River (spring)	Extant	H1	C	H	Myers et al. (2006)
South Santiam River (spring)	Extant	H1	C	H	Myers et al. (2006)
Calapooia River (spring)	Extinct	H1	C	H	Myers et al. (2006)
McKenzie River (spring)	Extant	H1	C	H	Myers et al. (2006)
Middle Fork Willamette River (spring)	Remnant extant (extinct in native habitat)	H1	C	H	Myers et al. (2006)
I. Mid-Columbia River					
Warm Springs River (spring)	Extant	I1b	A2	J1b	Haas and Warren (1961), Myers et al. (1998)
Metolius River (displaced and homogenized remnant spring run - spawn below Pelton Dam and at Round Butte Hatchery/Pelton Ladder) (spring)	Remnant extant (extinct in native habitat)	I1b	A2	J1b	Nehlsen (1995)
Crooked River (spring)	Extinct (absorbed into other gene pool)	I1a	A2	J1b	Nielsen (1950), Haas and Warren (1961), Fulton (1968), Nehlsen et al. (1991), Kostow (1995), Nehlsen (1995)
Upper Deschutes River/Squaw Creek (spring)	Extinct (absorbed into other gene pool)	I1a	A2	J1b	Nielsen (1950), Haas and Warren (1961), Fulton (1968), Nehlsen et al. (1991), Kostow (1995), Nehlsen (1995)

Chinook salmon population	Population status	Diversity category			Reference
		Ecological diversity	Life history diversity	Genetic Diversity	
Mainstem Deschutes/Metolius rivers (Metolius portion displaced below Pelton Dam) (summer)	Remnant extant (extinct in native habitat)	I1a	Bb	I1	Nehlsen (1995), Myers et al. (1998)
Mainstem Deschutes River (fall)	Extant	I1b	Bb	I1	Nehlsen (1995), Myers et al. (1998)
Mainstem John Day River (spring)	Extant	I1b	A2	J1c	Haas and Warren (1961), Fulton (1968), Myers et al. (1998)
North Fork John Day River (spring)	Extant	I1b	A2	J1c	Haas and Warren (1961), Fulton (1968), Myers et al. (1998)
Granite/Clear creeks (John Day River) (spring)	Extant	I1b	A2	J1c	Haas and Warren (1961), Fulton (1968), Myers et al. (1998)
Middle Fork John Day River (spring)	Extant	I1b	A2	J1c	Haas and Warren (1961), Fulton (1968), Myers et al. (1998)
John Day River (fall)	Extinct	I1b	B	I2	Haas and Warren (1961), Kostow (1995), Myers et al. (1998)
Umatilla River (spring)	Extinct	I1	A2	J1d	Nehlsen et al. (1991), Kostow (1995), Myers et al. (1998)
Umatilla River (fall)	Extinct	I1b	B	I2	Nehlsen et al. (1991), Kostow (1995), Myers et al. (1998)
Walla Walla River (spring)	Extinct	I1	A2	J1	Nielsen (1950), Fulton (1968), Nehlsen et al. (1991), Kostow (1995)
Walla Walla River (fall)	Extinct	I1b	B	I2	Nehlsen et al. (1991), Kostow (1995), Myers et al. (1998)
Upper Yakima River (spring)	Extant	I2a	A2	J1a	WDF et al. (1993), Myers et al. (1998)
Naches / American River (spring)	Extant	I2a	A2	J1a	WDF et al. (1993), Myers et al. (1998)
Yakima River (summer)	Extinct	I2a	Ba	J1a	WDF et al. (1993), Myers et al. (1998)
Yakima River (fall)	Extinct	I2a	Ba	I2	WDF et al. (1993), Myers et al. (1998)
Mainstem Columbia River from Celilo Falls to Snake River confluence (upriver bright fall) (includes Hanford Reach)	Extant	I3	Ba	I2	Horner and Bjornn (1979), WDF et al. (1993), Myers et al. (1998)
J. Upper-Columbia River					
Icicle Creek (spring)	Extinct	J1b	Ab	J2a	Myers et al. (1998)
Chiwawa River (spring)	Extant	J1b	Ab	J2a	WDF et al. (1993), Myers et al. (1998)

Chinook salmon population	Population status	Diversity category			Reference
		Ecological diversity	Life history diversity	Genetic Diversity	
Nason Creek (spring)	Extant	J1b	Ab	J2a	WDF et al. (1993), Myers et al. (1998)
Little Wenatchee/White rivers (spring)	Extant	J1a	Ab	J2a	WDF et al. (1993), Myers et al. (1998)
Wenatchee River (summer)	Extant	J1a	Ba	I2	WDF et al. (1993), Myers et al. (1998)
Entiat River (spring)	Extant	J1b	A2	J2a	Craig and Suomela (1941), Horner and Bjornn (1979), WDF et al. (1993)
Entiat River (summer)	Extinct	J1b	Ba	I2	Nehlsen et al. (1991), ONRC (1995)
Mainstem Methow/Lost Rivers, Early Winters creeks (spring)	Extant	J1b	Ab	J2a	Craig and Suomela (1941), French and Wahle (1960, 1965), WDF et al. (1993), Myers et al. (1998)
Twisp River (spring)	Extant	J1b	Ab	J2a	Craig and Suomela (1941), French and Wahle (1960, 1965), WDF et al. (1993), Myers et al. (1998)
Chewuch (Chewack) River (spring)	Extant	J1b	Ab	J2a	Craig and Suomela (1941), French and Wahle (1960, 1965), WDF et al. (1993), Myers et al. (1998)
Methow River (summer)	Extant	J1b	Ba	I2	WDF et al. (1993), Myers et al. (1998)
Okanogan River (spring)	Extinct	J2	A2	J2a	Nehlsen et al. (1991), ONRC (1995), Interior Columbia Basin TRT (2005)
Okanogan River below Lake Osoyoos (summer)	Extant	J2a	Ba	I2	French and Wahle (1965), WDF et al. (1993), Myers et al. (1998)
Lower Sanpoil River and tributaries (spring/summer)	Extinct	J5	A2	J2a	Bryant and Parkhurst (1950), Fulton (1968), Nehlsen et al. (1991)
Upper Sanpoil River and tributaries (spring/summer)	Extinct	J5	A2	J2a	
West Fork Sanpoil River (spring/summer)	Extinct	J5	A2	J2a	
Lower Sanpoil River (fall)	Extinct	J5	Ba	I2	Nehlsen et al. (1991)
Spokane River (spring)	Extinct	J6	A2	J2a	Stone (1885), Gilbert and Evermann (1894), Bryant and Parkhurst (1950), Fulton (1968), Scholz et al. (1985), Nehlsen et al. (1991), ONRC (1995)
Spokane River (summer)	Extinct	J6	A2	J2a	Fulton (1968), Scholz et al. (1985)
Little Spokane River (spring/summer)	Extinct	J6	A2	J2a	Stone (1885), Gilbert and Evermann (1894), Fulton (1968), Scholz et al. (1985)
Lower Spokane River (fall)	Extinct	J6	Ba	I2	Gilbert and Evermann (1894), Nehlsen et al. (1991)
Colville River (lower 6 km) (spring/summer)	Extinct	J6	A2	J2a	Gilbert and Evermann (1894), Bryant and Parkhurst (1950), Fulton (1968), Nehlsen et al. (1991), ONRC (1995)

Chinook salmon population	Population status	Diversity category			Reference
		Ecological diversity	Life history diversity	Genetic Diversity	
Kettle River (spring/summer)	Extinct	J5	A2	J2a	Bryant and Parkhurst (1950), Fulton (1968), Nehlsen et al. (1991), ONRC (1995)
Mainstem Columbia River (Okanogan River confluence upstream to Kettle Falls) (upriver bright fall)	Extinct	J3	Ba	I2	Gilbert and Evermann (1894), Fulton (1968), Horner and Bjornn (1979)
Mainstem Columbia River from Snake River confluence to Okanogan River confluence (upriver bright fall)	Extinct	J3	Ba	I2	Davidson (1966), Horner and Bjornn (1979)
K. Lower Snake River					
Tucannon River (spring/summer)	Extant	K2b	A2	J1	Interior Columbia Basin TRT (2003)
Tucannon River (fall)	Extinct	K2b	B	I2	Parkhurst (1950a), Lichatowich et al. (1993)
Asotin Creek (spring/summer)	Extant	K2b	Ab	J2b	Interior Columbia Basin TRT (2003)
Lower Snake River and lower reaches of large tributaries (fall)	Extant	K4	Bb	I1	Interior Columbia Basin TRT (2003)
CLEARWATER RIVER					
Lapwai/Big Canyon creeks	Extinct	K1	A1	J2b	Interior Columbia Basin TRT (2005)
Potlatch River (spring/summer)	Extinct	K1	A1	J2b	Fulton (1968), Interior Columbia Basin TRT (2005)
Lawyer Creek	Extinct	K1	A1	J2b	Interior Columbia Basin TRT (2005)
Upper South Fork Clearwater River (spring/summer)	Extinct	K1	A1	J2b	Fulton (1968), ONRC (1995), Interior Columbia Basin TRT (2005)
Lower North Fork Clearwater River (spring/summer)	Extinct	K1	A1	J2b	Fulton (1968), ONRC (1995), Interior Columbia Basin TRT (2005)
Upper North Fork Clearwater River (spring/summer)	Extinct	K1	A1	J2b	Fulton (1968), ONRC (1995), Interior Columbia Basin TRT (2005)
Lolo Creek (spring/summer)	Extinct	K1	A1	J2b	Keifer et al. (1992), Interior Columbia Basin TRT (2005)
Lochsa River (spring/summer)	Extinct	K1	A1	J2b	Fulton (1968), Keifer et al. (1992), ONRC (1995), Interior Columbia Basin TRT (2005)
Meadow Creek	Extinct	K1	A1	J2b	Interior Columbia Basin TRT (2005)
Moose Creek	Extinct	K1	A1	J2b	Interior Columbia Basin TRT (2005)
Upper Selway River (spring/summer)	Extinct	K1	A1	J2b	Fulton (1968), ONRC (1995), Interior Columbia Basin TRT (2005)
Clearwater River (fall)	Extant	K1	Bb	I1	Nehlsen et al. (1991)

Chinook salmon population	Population status	Diversity category			Reference
		Ecological diversity	Life history diversity	Genetic Diversity	
GRANDE RONDE RIVER					
Lookingglass Creek (spring/summer)	Extinct	K2b	A1	J2b	Interior Columbia Basin TRT (2003)
Catherine Creek (spring/summer)	Extant	K2b	A1	J2b	Interior Columbia Basin TRT (2003)
Wallowa/Lostine rivers (spring/summer)	Extant	K2a	A1	J2b	Interior Columbia Basin TRT (2003)
Minam River (spring/summer)	Extant	K2b	A1	J2b	Interior Columbia Basin TRT (2003)
Upper mainstem Grande Ronde River (spring/summer)	Extant	K2b	A1	J2b	Interior Columbia Basin TRT (2003)
Wenaha River (spring/summer)	Extant	K2b	A1	J2b	Interior Columbia Basin TRT (2003)
IMNAHA RIVER					
Big Sheep Creek (spring/summer)	Extant	K2b	A1	J2b	Interior Columbia Basin TRT (2003)
Imnaha River mainstem (spring/summer)	Extant	K2b	A1	J2b	Interior Columbia Basin TRT (2003)
SALMON RIVER					
Secesh River (spring/summer)	Extant	K3b	A1	J2b	Interior Columbia Basin TRT (2003)
South Fork Salmon River (spring/summer)	Extant	K3a	A1	J2b	Interior Columbia Basin TRT (2003)
East Fork South Fork Salmon River, Johnson Creek (spring/summer)	Extant	K3b	A1	J2b	Interior Columbia Basin TRT (2003)
Chamberlain Creek (spring/summer)	Extant	K3b	A1	J2b	Interior Columbia Basin TRT (2003)
Little Salmon River (spring/summer)	Extant	K3b	A1	J2b	Interior Columbia Basin TRT (2003)
Bear Valley/Elk creeks (spring/summer)	Extant	K3b	A1	J2b	Interior Columbia Basin TRT (2003)
Big Creek (spring/summer)	Extant	K3b	A1	J2b	Interior Columbia Basin TRT (2003)
Camas Creek (spring/summer)	Extant	K3b	A1	J2b	Interior Columbia Basin TRT (2003)
Lower Middle Fork Salmon River (spring/summer)	Extant	K3b	A1	J2b	Interior Columbia Basin TRT (2003)
Pistol Creek (spring/summer)	Extant	K3b	A1	J2b	Interior Columbia Basin TRT (2003)
Marsh Creek (spring/summer)	Extant	K3b	A1	J2b	Interior Columbia Basin TRT (2003)
Sulphur Creek (spring/summer)	Extant	K3b	A1	J2b	Interior Columbia Basin TRT (2003)
Loon Creek (spring/summer)	Extant	K3b	A1	J2b	Interior Columbia Basin TRT (2003)
Upper Middle Fork Salmon River (spring/summer)	Extant	K3b	A1	J2b	Interior Columbia Basin TRT (2003)
Valley Creek (spring/summer)	Extant	K3b	A1	J2b	Interior Columbia Basin TRT (2003)

Chinook salmon population	Population status	Diversity category			Reference
		Ecological diversity	Life history diversity	Genetic Diversity	
Lemhi River (spring/summer)	Extant	K3b	A1	J2b	Interior Columbia Basin TRT (2003)
North Fork Salmon River (spring/summer)	Extant	K3b	A1	J2b	Interior Columbia Basin TRT (2003)
Pahsimeroi River (spring/summer)	Extant	K3b	A1	J2b	Interior Columbia Basin TRT (2003)
East Fork Salmon River (spring/summer)	Extant	K3b	A1	J2b	Interior Columbia Basin TRT (2003)
Upper mainstem Salmon River above Redfish Lake (spring/summer)	Extant	K3b	A1	J2b	Interior Columbia Basin TRT (2003)
Upper mainstem Salmon River below Redfish Lake (spring/summer)	Extant	K3b	A1	J2b	Interior Columbia Basin TRT (2003)
Yankee Fork (spring/summer)	Extant	K3b	A1	J2b	Interior Columbia Basin TRT (2003)
Panther Creek (spring/summer)	Extinct	K3b	A1	J2b	Interior Columbia Basin TRT (2003)
ABOVE HELL'S CANYON					
Pine Creek (spring/summer)	Extinct	K2b	A1	J2b	Parkhurst (1950b), Thompson and Haas (1960), Fulton (1968), Interior Columbia Basin TRT (2005)
Eagle Creek (spring/summer)	Extinct	K2b	A1	J2b	Parkhurst (1950b), Thompson and Haas (1960), Interior Columbia Basin TRT (2005)
Powder River (spring/summer)	Extinct	K2b	A1	J2b	Parkhurst (1950b), Thompson and Haas (1960), Fulton (1968), Nehlsen et al. (1991), ONRC (1995), Interior Columbia Basin TRT (2005)
Burnt River (spring/summer)	Extinct	K2b	A1	J2b	Parkhurst (1950b), Thompson and Haas (1960), Fulton (1968), Interior Columbia Basin TRT (2005)
L. Upper-Snake River					
Marsing Reach (fall)	Extinct	L4	Bb	I1	Evermann (1896), Rathbun (1896), Van Dusen (1903), Parkhurst (1950b), Fulton (1968), Nehlsen et al. (1991), Interior Columbia Basin TRT (2005)
Salmon Falls (fall)	Extinct	L4	Bb	I1	Evermann (1896), Rathbun (1896), Van Dusen (1903), Parkhurst (1950b), Fulton (1968), Nehlsen et al. (1991), Interior Columbia Basin TRT (2005)
Lower Weiser River/Crane Creek (spring/summer)	Extinct	L1b	A1	J2b	Parkhurst (1950b), Fulton (1968), Interior Columbia Basin TRT (2005)
Little Weiser River (spring/summer)	Extinct	L1b	A1	J2b	Parkhurst (1950b), Fulton (1968), Interior Columbia Basin TRT (2005)
Upper Weiser River (spring/summer)	Extinct	L1b	A1	J2b	Parkhurst (1950b), Fulton (1968), Interior Columbia Basin TRT (2005)

Chinook salmon population	Population status	Diversity category			Reference
		Ecological diversity	Life history diversity	Genetic Diversity	
Big Willow/Little Willow creeks	Extinct	L1b	A1	J2b	Interior Columbia Basin TRT (2005)
Squaw Creek	Extinct	L1b	A1	J2b	Interior Columbia Basin TRT (2005)
North Fork Payette River (spring/summer)	Extinct	L1b	A1	J2b	Evermann (1896), Rathbun (1896), Evermann (1897), Parkhurst (1950b), Fulton (1968), Nehlsen et al. (1991), ONRC (1995), Interior Columbia Basin TRT (2005)
South Fork Payette River (spring/summer)	Extinct	L1b	A1	J2b	Parkhurst (1950b), Fulton (1968), Interior Columbia Basin TRT (2005)
Upper Malheur River (spring/summer)	Extinct	L2	A1	J2b	Parkhurst (1950c), Thompson and Haas (1960), Fulton (1968), Nehlsen et al. (1991), ONRC (1995), Interior Columbia Basin TRT (2005)
North Fork Malheur River (spring/summer)	Extinct	L2	A1	J2b	Parkhurst (1950c), Thompson and Haas (1960), Fulton (1968), Interior Columbia Basin TRT (2005)
Willow Creek/lower Malheur River (spring/summer)	Extinct	L2	A1	J2b	Fulton (1968), Interior Columbia Basin TRT (2005)
Mainstem Boise River (spring/summer)	Extinct	L1b	A1	J2b	Gilbert and Evermann (1894), Parkhurst (1950c), Fulton (1968), Nehlsen et al. (1991)
South Fork Boise River (spring/summer)	Extinct	L1b	A1	J2b	Townsend (1839), Parkhurst (1950c), Fulton (1968)
Middle Fork Boise River (spring/summer)	Extinct	L1b	A1	J2b	Parkhurst (1950c), Fulton (1968)
North Fork Boise River (spring/summer)	Extinct	L1b	A1	J2b	Fulton (1968)
Lower Owyhee River (spring/summer)	Extinct	L2	A1	J2b	Gilbert and Evermann (1894), Parkhurst (1950c), Fulton (1968), Nehlsen et al. (1991), ONRC (1995), Interior Columbia Basin TRT (2005)
Little Owyhee River	Extinct	L2	A1	J2b	Interior Columbia Basin TRT (2005)
South Fork Owyhee River	Extinct	L2	A1	J2b	Interior Columbia Basin TRT (2005)
Upper Owyhee River (spring/summer)	Extinct	L2	A1	J2b	Gilbert and Evermann (1894), Fulton (1968), Interior Columbia Basin TRT (2005)
Lower Bruneau River (spring/summer)	Extinct	L2	A1	J2b	Gilbert and Evermann (1894), Parkhurst (1950c), Fulton (1968), Nehlsen et al. (1991), ONRC (1995), Interior Columbia Basin TRT (2005)

Chinook salmon population	Population status	Diversity category			Reference
		Ecological diversity	Life history diversity	Genetic Diversity	
Upper Bruneau River (spring/summer)	Extinct	L2	A1	J2b	Gilbert and Evermann (1894), Interior Columbia Basin TRT (2005)
Canyon Creek (spring/summer)	Extinct	L2	A1	J2b	Interior Columbia Basin TRT (2005)
Salmon Falls Creek (spring/summer)	Extinct	L2	A1	J2b	Fulton (1968), Interior Columbia Basin TRT (2005)
Rock Creek (spring/summer)	Extinct	L2	A1	J2b	Fulton (1968), Interior Columbia Basin TRT (2005)
M. Columbia River Headwaters					
Pend Oreille River (spring)	Extinct	M2	A2	J2c	Bryant and Parkhurst (1950), Fulton (1968), Scholz et al. (1985), Nehlsen et al. (1991), ONRC (1995)
Lower Pend Oreille River (fall)	Extinct	M2	Ba	I2	Nehlsen et al. (1991)
Kootenai River (below Bonnington Falls) (spring)	Extinct	M1a	A2	J2c	Fulton (1968)
Slocan River (spring/)	Extinct	M1a	A2	J2c	Teit (1930)
Lower Kootenai River (fall)	Extinct	M1a	Ba	I2	Nehlsen et al. (1991)
Mainstem Columbia River and tributaries from above Kettle Falls to Upper Arrow Lake (spring)	Extinct	M3a	A2	J2c	Bryant and Parkhurst (1950), Fulton (1968)
Mainstem Columbia River and tributaries from above Upper Arrow Lake to confluence with Canoe River (spring)	Extinct	M3a	A2	J2c	Bryant and Parkhurst (1950), Fulton (1968)
Canoe River (spring)	Extinct	M3a	A2	J2c	Bryant and Parkhurst (1950), Fulton (1968)
Mainstem Columbia River and tributaries from above confluence with Canoe River to Lake Windermere (lower Spillimacheen River, etc.) (spring)	Extinct	M3a	A2	J2c	Tyrell (1916), Bryant and Parkhurst (1950), Fulton (1968), Scholz et al. (1985), Belyea (1994)
Mainstem Columbia River and tributaries above outlet of Lake Windermere (Toby Creek, etc.) (spring)	Extinct	M3	A2	J2c	de Smet (1847), Tyrell (1916), Bryant and Parkhurst (1950), Fulton (1968), Scholz et al. (1985), Belyea (1994)
Mainstem Columbia River (Above Kettle Falls) (fall)	Extinct	M3a	Ba	I2	Fulton (1968)

Appendix Table 3. Proposed historic demographically independent sockeye salmon populations sorted by major (level-I) ecological region. Each population is characterized according to its perceived current population status and historic biodiversity. Ecological, life history and genetic diversity are characterized using the hierarchical diversity matrix (see Appendix S1).

Sockeye salmon population	Population status	Diversity category			Reference
		Ecological diversity	Life history diversity	Genetic Diversity	
A. Georgia Basin					
STRAIT OF GEORGIA					
Sakinaw Lake	Extant	A1	C1b	G2	Marshall et al. (1976a)
West-side Strait of Georgia sea-/river-type (Quinsam/Englishman/Little Qualicum rivers)	Extant	A2	A	I	Marshall et al. (1977a), Brown et al. (1977)
East-side Strait of Georgia sea-/river-type (Indian/Mamquam rivers) (Tzoonie River extinct)	Extant	A2b	A	I	Marshall et al. (1976a), Hancock and Marshall (1986)
Comox Lake, Puntledge River	Extinct	A2a	D1	O	
LOWER FRASER RIVER					
Chilliwack Lake	Extant	A2a	D1a	S	Ricker (1972), Marshall et al. (1980b), Withler et al. (2000)
Cultus Lake	Extant	A1	D1b	R	Marshall et al. (1980b), Withler et al. (2000)
Harrison Lake (exclusive of Weaver Creek)	Extant	A2a	D1a	Q	Hancock and Marshall (1985b), Withler et al. (2000)
Weaver Creek (rear in Harrison Lake)	Extant	A1	D1c	Q	Hancock and Marshall (1985b), Withler et al. (2000)
Upper Pitt River (Pitt Lake)	Extant	A2a	D1a	Q	Hancock and Marshall (1985a), Withler et al. (2000)
Tributaries to Lillooet Lake (Birkenhead River, John Sandy/Railroad creeks)	Extant	A2a	D1a	Q	Brown et al. (1979a), Withler et al. (2000)
Lower Fraser River sea-type (Harrison River rapids)	Extant	A2a	B	I	Hancock and Marshall (1985a, b)
Lower Fraser River river-type (Maria Slough, Widgeon Creek)	Extant	A2a	A	I	Hancock and Marshall (1985a, b)
Coquitlam Lake/Coquitlam River (early "bastard sockeye")	Extinct	A2a	C1	P	Ricker (1972), Slaney et al. (1996), Conlin et al. (2000), Koop et al. (2001), Bengueyfield et al. (2001)
Alouette Lake/Alouette River (early "bastard sockeye" and late)	Extinct	A2a	C1	P	Foerster (1931), Ricker (1972), Slaney et al. (1996), Conlin et al. (2000), Bengueyfield et al. (2001)

Sockeye salmon population	Population status	Diversity category			Reference
		Ecological diversity	Life history diversity	Genetic Diversity	
PUGET SOUND					
Baker Lake	Extant	A2	D1	G1	WDF et al. (1993), Gustafson et al. (1997)
Washington state river-type	Extant	A2a	A	I	Gustafson et al. (1997), Gustafson and Winans (1999)
Mason Lake (Sherwood Creek)	Extinct	A1a	D1	T	Nehlsen et al. (1991)
Big Bear Creek (Lake Washington)	Extant	A1a	D1a	H	Gustafson et al. (1997)
Lake Cushman (North Fork Skokomish River)	Anadromous form extinct	A2a	D1	U	Wampler (1980), Amato (1996)
Lake Sutherland (Elwha River)	Anadromous form extinct	A2b	D1	V	Nehlsen et al. (1991), Hiss and Wunderlich (1994)
B. Coastal Rainforest					
WEST COAST VANCOUVER ISLAND					
Cheewhat Lake	Extant	B1a	C1	Y	Brown et al. (1979b), Rutherford et al. (1992)
Hobiton Lake	Extant	B1a	C1	Y	Aro and Shepard (1967), Brown et al. (1979b), Rutherford et al. (1992)
Henderson Lake	Extant	B1a	D1	Z	Aro and Shepard (1967), Brown et al. (1979b), Rutherford et al. (1992)
Great Central Lake	Extant	B2a	C1	Z	Brown et al. (1979b), Rutherford et al. (1992)
Sproat Lake	Extant	B2a	C1	Z	Brown et al. (1979b), Rutherford et al. (1992)
Kennedy Lake (early)	Extant	B1a	D1	AA	Aro and Shepard (1967), Brown et al. (1979c), Rutherford et al. (1992), Riecken et al. (1999)
Kennedy Lake (late)	Extant	B1a	D1	AA	Aro and Shepard (1967), Brown et al. (1979c), Rutherford et al. (1992), Riecken et al. (1999)
Muriel Lake	Extant	B1a	D1	AB	Riecken et al. (1999)
Megin Lake	Extant	B1a	D1	AC	Brown et al. (1979c), Riecken et al. (1999)
Cecilia Lake	Extinct	B1a	D1	AD	Brown et al. (1979c)
Hesquiat Lake	Extant	B1a	D1	AD	Brown et al. (1979c)
Kanim Lake	Extant	B1a	C1	AD	Brown et al. (1979c)
Muchalat Lake	Extant	B1a	D1	AE	Brown et al. (1979e)
Owossitsa Lake/Creek and Park Lake/River (Esperanza Inlet)	Extant	B1a	C1	AF	Brown et al. (1979e)
Jansen Lake	Extant	B1a	D1	AG	Marshall et al. (1980a)

Sockeye salmon population	Population status	Diversity category			Reference
		Ecological diversity	Life history diversity	Genetic Diversity	
Power Lake	Extant	B1a	D1	AG	Marshall et al. (1980a)
O'Connell Lake (Mahatta River)	Extant	B1a	D1	AH	Aro and Shepard (1967), Brown et al. (1979d)
Brink/William lakes (Fisherman River)	Extant	B1a	D1	AI	Brown et al. (1979d)
West coast Vancouver Island sea-/river-type (San Juan/Burman/Conuma/Leiner/Mooyah/Sucwoa/ Tahsis/Tsowwin/Zeballos/Kashutl/Tahsish/Tatchu/Marble rivers, Cold/Canton/Deserted/Kleeptee/Chamiss/Clanninick/Narrowgut creeks)	Extant	B2b	A	I	Brown et al. (1979b, c, d, e), Marshall et al. (1977b, 1980a)
OLYMPIC PENINSULA					
Quinault Lake	Extant	B2a	C1a	E	WDF et al. (1993), Gustafson et al. (1997)
Ozette Lake	Extant	B1a	C1b	D	WDF et al. (1993), Gustafson et al. (1997)
Lake Pleasant	Extant	B1a	C1b	F	WDF et al. (1993), Gustafson et al. (1997)
I. Mid-Columbia River					
Suttle Lake (Deschutes/Metolius rivers)	Extinct	I1a	E1a	XI	Nielsen (1950), Haas and Warren (1961), Fulton (1970), Mullan (1986), Nehlsen et al. (1991), Nehlsen (1995), Fryer (1995), Thiesfeld et al. (1999)
Bumping Lake (Yakima River)	Extinct	I2a	E1	M	Gangmark and Fulton (1952), Fulton (1970), Mullan (1986)
Cle Elum Lake (Yakima River)	Extinct	I2a	E1	M	Ray (1936), Gangmark and Fulton (1952), Fulton (1970), Mullan (1986)
Kachess Lake (Yakima River)	Extinct	I2a	E1	M	Gangmark and Fulton (1952), Fulton (1970), Mullan (1986)
Keechelus Lake (Yakima River)	Extinct	I2a	E1	M	Gangmark and Fulton (1952), Fulton (1970), Mullan (1986)
J. Upper-Columbia River					
Christina Lake (Kettle River)	Anadromous form extinct	J4	E1	W	Bryant and Parkhurst (1950)
Chain Lake (Little Spokane River)	Anadromous form extinct	J5	E1	X	Whalen (2000)

Sockeye salmon population	Population status	Diversity category			Reference
		Ecological diversity	Life history diversity	Genetic Diversity	
Lake Osoyoos (Okanogan River)	Extant	J2	E1a	C	WDF et al. (1993)
Skaha Lake (Okanogan River)	Anadromous form extinct	J2a	E1	C	Fish and Hanavan (1948), Bryant and Parkhurst (1950), Gangmark and Fulton (1952), French and Wahle (1960, 1965), Fulton (1970), Mullan (1986), Nehlsen et al. (1991), Fryer (1995)
Okanogan Lake (Okanogan River)	Anadromous form extinct	J2a	E1	C	Fish and Hanavan (1948), Bryant and Parkhurst (1950), Gangmark and Fulton (1952), French and Wahle (1960, 1965), Fulton (1970), Mullan (1986), Nehlsen et al. (1991), Fryer (1995)
Palmer Lake (Similkameen River)	Extinct (original population existence uncertain)	J2a	E1	C	Bryant and Parkhurst (1950), French and Wahle (1960, 1965), Fulton (1970), Allen and Meekin (1980), Fryer (1995)
Lake Wenatchee (Wenatchee River)	Extant	J1	E1a	B	WDF et al. (1993)
K. Lower Snake River					
Redfish Lake	Extant	K3	F1b	A1	Bjornn et al. (1968), Waples et al. (1991), Interior Columbia Basin TRT (2005)
Stanley Lake	Anadromous form extinct	K3	F1	A1	Mullan (1986), Nehlsen et al. (1991), Fryer (1995), Interior Columbia Basin TRT (2005)
Alturas Lake	Anadromous form extinct	K3	F1a	A1	Evermann (1896, 1897), Evermann and Scovell (1896), Rathbun (1896), Mullan (1986), Nehlsen et al. (1991), Fryer (1995), Interior Columbia Basin TRT (2005)
Pettit Lake	Extinct	K3	F1a	A1	Evermann (1896, 1897), Evermann and Scovell (1896), Rathbun (1896), Mullan (1986), Nehlsen et al. (1991), Fryer (1995), Interior Columbia Basin TRT (2005)
Yellowbelly Lake	Extinct (original population existence uncertain)	K3	F1	A1	Bjornn et al. (1968), Mullan (1986), Nehlsen et al. (1991), Fryer (1995), Interior Columbia Basin TRT (2005)

Sockeye salmon population	Population status	Diversity category			Reference
		Ecological diversity	Life history diversity	Genetic Diversity	
Warm Lake (South Fork Salmon River)	Anadromous form extinct	K3	F1b	A2	Mullan (1986), Waples et al. (1997), Interior Columbia Basin TRT (2005)
Wallowa Lake (Grande Ronde River)	Extinct	K2a	F1	J	Evermann and Meek (1898), McGuire (1898), Van Duzen (1903), Parkhurst (1950a), Toner (1960), Fulton (1970), Mullan (1986), Cramer (1990), Nehlsen et al. (1991), Fryer (1995), Interior Columbia Basin TRT (2005)
L. Upper-Snake River					
Big Payette Lake	Anadromous form extinct	L1a	F1	K	Evermann (1896, 1897), Rathbun (1896), Parkhurst (1950b), Fulton (1970), Mullan (1986), Nehlsen et al. (1991), Fryer (1995), Interior Columbia Basin TRT (2005)
Upper Payette Lake	Extinct	L1a	F1	K	Mullan (1986), Interior Columbia Basin TRT (2005)
Little Payette Lake	Extinct (original population existence uncertain)	L1a	F1	K	Evermann (1896), Parkhurst (1950b), Fulton (1970), Mullan (1986), Interior Columbia Basin TRT (2005)
M. Columbia River Headwaters					
Upper Arrow Lake (beach spawners)	Anadromous form extinct	M3a	E1b	N	Bryant and Parkhurst (1950), Fulton (1970), Mullan (1986), Nehlsen et al. (1991), Fryer (1995)
Upper Arrow Lake (inlet spawners, Kuskanax Creek, etc)	Anadromous form extinct	M3a	E1a	N	Chapman (1943)
Lower Arrow Lake	Anadromous form extinct	M3a	E1	N	Bryant and Parkhurst (1950), Simpson (1968), Fulton (1970), Mullan (1986), Nehlsen et al. (1991), Fryer (1995)
Whatshan Lake	Anadromous form extinct	M3a	E1	N	Fulton (1970), Mullan (1986), Nehlsen et al. (1991), Fryer (1995)
Kinbasket Lake	Extinct	M3a	E1	N	Fulton (1970), Mullan (1986), Fryer (1995)
Windermere Lake	Extinct	M3a	E1	N	Fulton (1970), Mullan (1986), Fryer (1995)

Sockeye salmon population	Population status	Diversity category			Reference
		Ecological diversity	Life history diversity	Genetic Diversity	
Columbia Lake	Extinct	M3a	E1	N	Fulton (1970), Mullan (1986), Fryer (1995)
Slocan Lake	Anadromous form extinct	M1a	E1	N	Fulton (1970), Mullan (1986), Nehlsen et al. (1991), Fryer (1995)

Appendix Table 4. Proposed historic demographically independent coho salmon populations sorted by major (level-I) ecological region. Each population is characterized according to its perceived current population status and historic biodiversity. Ecological, life history and genetic diversity are characterized using the hierarchical diversity matrix (see Appendix S1).

Coho salmon population	Population status	Diversity category			Reference
		Ecological diversity	Life history diversity	Genetic Diversity	
A. Georgia Basin					
STRAIT OF GEORGIA (Mainland)					
Squamish River	Extant	A1b	A1	A1a	Hancock and Marshall (1986)
Cheakamus River	Extant	A1b	A1	A1a	Hancock and Marshall (1986)
Seymour River	Extant	A2b	A1	A1a	Hancock and Marshall (1986), DFO (1999)
Capilano River	Extant	A2b	A1	A1a	Hancock and Marshall (1986), DFO (1999)
Brem River	Extant	A2b	A1	A1a	Hancock and Marshall (1985c)
Toba River	Extant	A2b	A1	A1a	Hancock and Marshall (1985c)
Sakinaw Lake system	Extant	A1	A1	A1a	Marshall et al. (1976a)
Skwawka River	Extant	A2	A1	A1a	Marshall et al. (1976a)
Tzoonie River	Extant	A2	A1	A1a	Marshall et al. (1976a)
STRAIT OF GEORGIA (East coast Vancouver Island)					
Quinsam/Campbell rivers	Extant	A2	A1	A1a	Marshall et al. (1977a)
Oyster River/Black Creek	Extant	A2	A1	A1a	Brown et al. (1977)
Puntledge/Tsolum rivers	Extant	A2	A1	A1a	Brown et al. (1977)
Little Qualicum/Qualicum rivers	Extant	A2	A1	A1a	Brown et al. (1977)
Englishman River/ French Creek	Extant	A2	A1	A1a	Brown et al. (1977)
Chemainus River	Extant	A1	A1	A1a	Marshall et al. (1976b)
Nanaimo/Chase rivers	Extant	A1	A1	A1a	Marshall et al. (1976b)
Cowichan/Koksilah rivers	Extant	A1	A1	A1a	Marshall et al. (1976b)
LOWER FRASER RIVER					
Small south shore Lower Fraser River tributaries from mouth to Hope (Salmon River, Atchelitz/ Dunville/Elk/Popkum/Lonzo/ Nathan/Lorenzetta/Wahleach creeks, Wahleach/Hope sloughs)	Extant	A1	A1	A1a	Marshall et al. (1980b), DFO (1999)

Coho salmon population	Population status	Diversity category			Reference
		Ecological diversity	Life history diversity	Genetic Diversity	
Sumas/Chilliwack-Vedder rivers	Extant	A2	A1	A1a	Marshall et al. (1980b), DFO (1999)
Fraser River from near Hope to Hell's Gate (Coquihalla River/Kawkawa/Silverhope/Yale/Spuzzum/American creeks)	Extant	A2	A1	A1a	Marshall et al. (1980b), DFO (1999)
Lower Pitt River and tributaries/Coquitlam River (Alouette/North Alouette rivers)	Extant	A2a	A1	A1a	Hancock and Marshall (1985a)
Upper Pitt River	Extant	A2a	A1	A1a	Hancock and Marshall (1985a)
Stave River	Extant	A2a	A1	A1a	Hancock and Marshall (1985b), DFO (1999)
Small north shore Lower Fraser River tributaries from mouth to below Stave River (Brunette River, Musqueem/Kanaka/Whonnock creeks)	Extant	A1	A1	A1a	Hancock and Marshall (1985a), DFO (1999)
Small north shore Lower Fraser River tributaries from Stave River to Hope (Nicomen/Mountain/Maria Sloughs, Ruby/Silverdale/ Mahood/Norrish creeks)	Extant	A1	A1	A1a	Hancock and Marshall (1985b), DFO (1999)
Harrison/Chehalis rivers, Weaver Creek, Lower Harrison Lake tributaries (Cogburn/Big Silver/ Mystery/Trout Lake/Twenty Mile creeks)	Extant	A2a	A1	A1a	Hancock and Marshall (1985b), DFO (1999)
Lillooet/Birkenhead rivers	Extant	A2	A1	A1a	Brown et al. (1979a), DFO (1999)
PUGET SOUND					
Nooksack River	Extant	A2a	A1	A1b	Nehlsen et al. (1991), WDF et al. (1993)
North Puget Sound tributaries and Samish River (Nicomekl/ Serpentine/Campbell rivers)	Extant	A1a	A1	A1b	Hancock and Marshall (1985a), WDF et al. (1993), DFO (1999)
Main Skagit River	Extant	A2a	A1	A1b	WDF et al. (1993), Weitkamp et al. (1995)
Baker River	Extant	A2a	A1	A1b	WDF et al. (1993), Weitkamp et al. (1995)
Stillaguamish River	Extant	A2a	A1	A1b	WDF et al. (1993), Weitkamp et al. (1995)
Stillaguamish River early (Deer Creek)	Extant	A2a	A1	A1b	Weitkamp et al. (1995)
Lower Snohomish River tributaries	Extant	A2a	A1	A1b	Weitkamp et al. (1995)
Skykomish River	Extant	A2a	A1	A1b	Weitkamp et al. (1995)
Snoqualmie River	Extant	A2a	A1	A1b	Weitkamp et al. (1995)

Coho salmon population	Population status	Diversity category			Reference
		Ecological diversity	Life history diversity	Genetic Diversity	
Lake Washington tributaries, Cedar River	Extant	A2a	A1	A1b	WDF et al. (1993), Weitkamp et al. (1995)
Duwamish/Green rivers	Extant	A2a	A1	A1b	WDF et al. (1993), Weitkamp et al. (1995)
Puyallup River	Extant	A2a	A1	A1b	WDF et al. (1993), Weitkamp et al. (1995)
White River	Extant	A2a	A1	A1b	Weitkamp et al. (1995)
Nisqually River	Extant	A2a	A1	A1b	WDF et al. (1993), Weitkamp et al. (1995)
South Sound small tributaries	Extant	A1b	A1	A1b	WDF et al. (1993), Weitkamp et al. (1995)
East Kitsap Peninsula small tributaries	Extant	A1b	A1	A1b	WDF et al. (1993), Weitkamp et al. (1995)
HOOD CANAL					
Eastern Hood Canal tributaries (Dewatto/Tahuya/ Union rivers, Big Beef Creek)	Extant	A1b	A1	A1b	WDF et al. (1993), Weitkamp et al. (1995)
Skokomish River	Extant	A2a	A1	A1b	WDF et al. (1993), Weitkamp et al. (1995)
Southwest Hood Canal tributaries and Hamma Hamma River	Extant	A2b	A1	A1b	WDF et al. (1993), Weitkamp et al. (1995)
Duckabush/Dosewallips/Quilcene/ Little Quilcene rivers	Extant	A2b	A1	A1b	WDF et al. (1993), Weitkamp et al. (1995)
STRAIT OF JUAN DE FUCA					
Chimacum Creek, Discovery/ Sequim bays	Extant	A1b	A1	A1b	WDF et al. (1993), Weitkamp et al. (1995)
Dungeness River	Extant	A2a	A1	A1b	WDF et al. (1993), Weitkamp et al. (1995)
Elwha River	Extant	A2b	A1	A1b	WDF et al. (1993), Weitkamp et al. (1995)
B. Coastal Rainforest					
WEST COAST VANCOUVER ISLAND					
Gordon River	Extant	B1	A2	A5	Marshall et al. (1977b)
San Juan River	Extant	B1	A2	A5	Brown et al. (1979b), Beacham et al. (2001)
Nitinat River	Extant	B1	A2	A5	Brown et al. (1979b), Beacham et al. (2001)
Somass River	Extant	B2a	A2	A5	Brown et al. (1979b), Beacham et al. (2001)
Barkley Sound	Extant	B1	A2	A5	Brown et al. (1979b), Beacham et al. (2001)
Clayoquot Sound	Extant	B1	A2	A5	Brown et al. (1979c), Beacham et al. (2001)
Kennedy River	Extant	B1	A2	A5	Brown et al. (1979c), Beacham et al. (2001)
Tlupana Inlet (Sucwoa, Conuma, Tlupana rivers)	Extant	B1	A2	A5	Brown et al. (1979e)
Tahsis / Leiner rivers (Tahsis Inlet)	Extant	B1	A2	A5	Brown et al. (1979e)

Coho salmon population	Population status	Diversity category			Reference
		Ecological diversity	Life history diversity	Genetic Diversity	
Gold River (Muchalat Inlet)	Extant	B1	A2	A5	Brown et al. (1979e)
Tahsish River (Kyuquot Sound)	Extant	B1	A2	A5	Marshall et al. (1980a)
Marble River (Quatsino Sound)	Extant	B1	A2	A5	Brown et al. (1979d)
San Josef River	Extant	B1	A2	A5	Brown et al. (1979d)
OLYMPIC PENINSULA					
Hoko River	Extant	B1b	A1	A1c	WDF et al. (1993), Weitkamp et al. (1995)
Sooes River	Extant	B1b	A2	A1c	WDF et al. (1993)
Ozette River	Extant	B1a	A2	A1c	WDF et al. (1993), Weitkamp et al. (1995)
Soleduck River (summer)	Extant	B2a	A2	A1c	WDF et al. (1993), Weitkamp et al. (1995)
Soleduck River (fall)	Extant	B2a	A2	A1c	WDF et al. (1993), Weitkamp et al. (1995)
Dickey River (fall)	Extant	B1a	A2	A1c	WDF et al. (1993)
Calawah/Bogachiel rivers (fall)	Extant	B1b	A2	A1c	WDF et al. (1993), Weitkamp et al. (1995)
Hoh River	Extant	B2b	A2	A1c	WDF et al. (1993), Weitkamp et al. (1995)
Queets/Clearwater rivers	Extant	B2b	A2	A1c	WDF et al. (1993), Weitkamp et al. (1995)
Quinault River	Extant	B2a	A2	A1c	WDF et al. (1993), Weitkamp et al. (1995)
C. Northern Coastal (Southwest Washington to Cape Blanco)					
WASHINGTON					
Humtulsips/Hoquiam/Wishkah rivers and South Bay tributaries	Extant	C2b	A2	A2b	WDF et al. (1993), Weitkamp et al. (1995)
Upper Chehalis River	Extant	C2a	A2	A2b	WDF et al. (1993), Weitkamp et al. (1995)
Wynoochee/Satsop rivers	Extant	C2a	A2	A2b	WDF et al. (1993)
North/Willapa/Palix rivers	Extant	C2b	A2	A2b	Phinney and Bucknell (1975), WDF et al. (1993), Weitkamp et al. (1995)
Nemah/Naselle/Bear rivers	Extant	C2b	A2	A2b	WDF et al. (1993), Weitkamp et al. (1995)
COLUMBIA RIVER					
Grays River late run	Extinct	C1	A3	A2a	Myers et al. (2006)
Youngs Bay late run	Extinct	C1	A3	A2a	Myers et al. (2006)
Big Creek late run	Extinct	C1	A3	A2a	Myers et al. (2006)
Elochoman River late run	Extinct	C1	A3	A2a	Myers et al. (2006)
Mill Creek (Washington) late run	Extinct	C1	A3	A2a	Myers et al. (2006)
Clatskanie River late run	Extinct	C1	A3	A2a	Myers et al. (2006)

Coho salmon population	Population status	Diversity category			Reference
		Ecological diversity	Life history diversity	Genetic Diversity	
OREGON					
Necanicum River	Extant	C4	A4	A3	Lawson et al. (2004)
Nehalem River	Extant	C2b	A4	A3	Lawson et al. (2004)
Tillamook Bay	Extant	C2b	A4	A3	Lawson et al. (2004)
Nestucca River	Extant	C2b	A4	A3	Lawson et al. (2004)
Salmon River	Extant	C4	A4	A3	Lawson et al. (2004)
Siletz Bay	Extant	C2b	A4	A3	Lawson et al. (2004)
Yaquina River	Extant	C2b	A4	A3	Lawson et al. (2004)
Beaver Creek	Extant	C4	A4	A3	Lawson et al. (2004)
Alsea River	Extant	C2b	A4	A3	Lawson et al. (2004)
Siuslaw River	Extant	C2b	A4	A3	Lawson et al. (2004)
Siltcoos River/Lake	Extant	C3	A4	A3	Lawson et al. (2004)
Tahkenitch Creek/River	Extant	C3	A4	A3	Lawson et al. (2004)
Tennile Creek/Lake	Extant	C3	A4	A3	Lawson et al. (2004)
Lower Umpqua River	Extant	C2a	A4	A3	Lawson et al. (2004)
Upper Umpqua River	Extant	C2a	A4	A3	Lawson et al. (2004)
Coos Bay	Extant	C2b	A4	A3	Lawson et al. (2004)
Coquille River	Extant	C4	A4	A3	Lawson et al. (2004)
Floras Creek	Extant	C4	A4	A3	Lawson et al. (2004)
Sixes River	Extant	C4	A4	A3	Lawson et al. (2004)
D. Klamath Mountains Province					
Elk River	Extant	D3	A5	A4	Williams et al. (2006)
Illinois River (Rogue River)	Extant	D1	A5	A4	Williams et al. (2006)
Middle Rogue River and Applegate River	Extant	D1	A5	A4	Williams et al. (2006)
Upper Rogue River	Extant	D1	A5	A4	Williams et al. (2006)
Chetco River	Extant	D3	A5	A4	Williams et al. (2006)
CALIFORNIA					
Smith River	Extant	D3	A5	A4	Williams et al. (2006)
Lower Klamath River	Extant	D2	A5	A4	Williams et al. (2006)
Upper Klamath River	Extant	D2	A5	A4	Williams et al. (2006)
Shasta River	Extant	D2	A5	A4	Williams et al. (2006)

Coho salmon population	Population status	Diversity category			Reference
		Ecological diversity	Life history diversity	Genetic Diversity	
Scott River	Extant	D2	A5	A4	Williams et al. (2006)
South Fork Trinity River	Extant	D2	A5	A4	Williams et al. (2006)
Upper Trinity River	Extinct	D2	A5	A4	Williams et al. (2006)
E. Northern California (South of Klamath River to San Lorenzo River)					
Redwood Creek	Extant	E1	A5	A4	Williams et al. (2006)
Mad River	Extant	E1	A5	A4	Williams et al. (2006)
Humboldt Bay tributaries	Extant	E1	A5	A4	Williams et al. (2006)
Lower Eel River and Van Duzen River	Extant	E1	A5	A4	Williams et al. (2006)
South Fork Eel River	Extant	E1	A5	A4	Williams et al. (2006)
Middle Mainstem Eel River	Extant	E1	A5	A4	Williams et al. (2006)
Mattole River	Extant	E1	A5	A4	Williams et al. (2006)
Ten Mile River	Extant	E2	A6	B	Bjorkstedt et al. (2005)
Noyo River	Extant	E2	A6	B	Bjorkstedt et al. (2005)
Big River	Extant	E2	A6	B	Bjorkstedt et al. (2005)
Navarro River	Extant	E2	A6	B	Bjorkstedt et al. (2005)
Albion River	Extant	E2	A6	B	Bjorkstedt et al. (2005)
Garcia River	Extant	E2	A6	B	Bjorkstedt et al. (2005)
Gualala River	Extant	E2	A6	B	Bjorkstedt et al. (2005)
Russian River	Extinct	E2	A6	B	Bjorkstedt et al. (2005)
Lagunitas Creek	Extant	E2	A6	B	Bjorkstedt et al. (2005)
San Gregorio Creek	Extinct	E2	A6	B	Bjorkstedt et al. (2005)
Pescadero Creek	Extinct	E2	A6	B	Bjorkstedt et al. (2005)
San Lorenzo River	Extinct	E2	A6	B	Bjorkstedt et al. (2005)
F. Southern California					
Pajaro River	Extinct	F1	A6	B	Pacific Rivers Council et al. (1993), Bryant (1994), Anderson (1995)
Salinas River	Extinct (original population existence uncertain)	F1	A6	B	Pacific Rivers Council et al. (1993)

Coho salmon population	Population status	Diversity category			Reference
		Ecological diversity	Life history diversity	Genetic Diversity	
Carmel and Big Sur rivers	Extinct (original population existence uncertain)	F1	A6	B	Pacific Rivers Council et al. (1993), Bryant (1994), Moyle et al. (1995)
G. California Central Valley					
Sacramento River (late)	Extinct (original population existence uncertain)	G3	C	D	Jordan and Gilbert (1882), Jordan and Jouy (1882), Eigenmann (1890), Brown and Moyle (1991), Pacific Rivers Council et al. (1993), Brown et al. (1994), Bryant (1994), Weitkamp et al. (1995)
Sacramento River (early)	Extinct (original population existence uncertain)	G1	C	D	Jordan and Gilbert (1882), Jordan and Jouy (1882), Eigenmann (1890), Brown and Moyle (1991), Pacific Rivers Council et al. (1993), Brown et al. (1994), Bryant (1994)
H. Willamette River Valley and Lower Columbia River					
Scappoose Creek late run	Extant	H3	A3	A2a	Myers et al. (2006)
Lower Cowlitz River late run	Extant	H2	A3	A2a	Myers et al. (2006)
Upper Cowlitz River early and late runs	Extinct	H2	A3	A2a	Myers et al. (2006)
North Fork Toutle (Green) River early and late runs	Extant	H2	A3	A2a	Myers et al. (2006)
South Fork Toutle River early and late runs	Extant	H2	A3	A2a	Myers et al. (2006)
Cispus River early and late runs	Extinct	H2	A3	A2a	Myers et al. (2006)
Tilton River early and late runs	Extinct	H2	A3	A2a	Myers et al. (2006)
Coweeman River late run	Extant	H2	A3	A2a	Myers et al. (2006)
Kalama River late run	Extant	H2	A3	A2a	Myers et al. (2006)
North Fork Lewis River early and late runs	Extant	H2	A3	A2a	Myers et al. (2006)
East Fork Lewis River early and late runs	Extant	H2	A3	A2a	Myers et al. (2006)
Salmon Creek late run	Extant	H2	A3	A2a	Myers et al. (2006)
Washougal River early and late runs	Extant	H2	A3	A2a	Myers et al. (2006)
Clackamas River early and late runs	Extant	H2	A3	A2a	Myers et al. (2006)

Coho salmon population	Population status	Diversity category			Reference
		Ecological diversity	Life history diversity	Genetic Diversity	
Sandy River early and late runs	Extant	H2	A3	A2a	Myers et al. (2006)
Lower Columbia Gorge Tributaries early run	Extinct	H3	A3	A2a	Myers et al. (2006)
Washington Upper Gorge Tributaries and White Salmon River early run	Extinct	H3	A3	A2a	Myers et al. (2006)
Oregon Upper Gorge Tributaries and Hood River early run	Extinct	H3	A3	A2a	Myers et al. (2006)
Chenoweth/Mill/Fifteenmile creeks	Extinct	H3	A3	A2a	Haas and Warren (1961), Nehlsen et al. (1991), Kostow (1995)
I. Mid-Columbia River					
Upper mainstem Yakima/Cle Elum/Kachess rivers	Extinct	I2	B	C1	Wahle and Pearson (1984), Fulton (1970), Mullan (1984), Nehlsen et al. (1991)
Lower mainstem Yakima River and tributaries (Umptanum/Taneum creeks)	Extinct	I2	B	C1	Bryant and Parkhurst (1950), Fulton (1970)
Naches River	Extinct	I2	B	C1	Fulton (1970)
Teanaway River	Extinct	I2	B	C1	
Umatilla River	Extinct	I1	B	C1	Van Duzen (1903), Nehlsen et al. (1991)
Lower Walla Walla River	Extinct	I1	B	C1	Fulton (1970), Horner and Bjornn (1981), Cramer (1990), Nehlsen et al. (1991)
Touchet River	Extinct	I1	B	C1	Parkhurst (1950a), Horner and Bjornn (1981), Cramer (1990)
Deschutes River	Extinct	I1	B	C1	Olsen et al. (1992)
Upper mainstem John Day River	Extinct	I1	B	C1	Van Duzen (1903), Fulton (1970)
North Fork/Middle Fork John Day River	Extinct	I1	B	C1	Haas and Warren (1961), Fulton (1970)
J. Upper-Columbia River					
Mainstem Wenatchee River (early)	Extinct	J1	B	C2	Craig and Suomela (1941), Fulton (1970), Wahle and Pearson (1984), Mullan (1984), Nehlsen et al. (1991)
Icicle Creek	Extinct	J1	B	C2	Fulton (1970)
Nason Creek	Extinct	J1	B	C2	Bryant and Parkhurst (1950), French and Wahle (1960, 1965), Fulton (1970)
Entiat River	Extinct	J1	B	C2	Craig and Suomela (1941), Fulton (1970), Mullan (1984), Wahle and Pearson (1984), Nehlsen et al. (1991)

Coho salmon population	Population status	Diversity category			Reference
		Ecological diversity	Life history diversity	Genetic Diversity	
Lower Methow River (early)	Extinct	J1	B	C2	Craig and Suomela (1941), French and Wahle (1960), Mullan (1984), Nehlsen et al. (1991)
Lower Twisp River	Extinct	J1	B	C2	Bryant and Parkhurst (1950), French and Wahle (1960, 1965), Fulton (1970)
Okanogan River (early)	Extinct	J2	B	C2	Mullan (1984)
Sanpoil River	Extinct (original population existence uncertain)	J4	B	C2	
Lower Spokane River	Extinct	J5	B	C2	Bryant and Parkhurst (1950), Fulton (1970), Horner and Bjornn (1981), Scholz et al. (1985), Nehlsen et al. (1991)
Little Spokane River	Extinct	J5	B	C2	Bryant and Parkhurst (1950), Fulton (1970), Scholz et al. (1985)
K. Lower Snake River					
Tucannon River	Extinct	K2	B	C3	Parkhurst (1950a), Fulton (1970), Horner and Bjornn (1981), Nehlsen et al. (1991), Lichatowich et al. (1993)
Lower Grande Ronde River	Extinct	K2	B	C3	Van Duzen (1903), Parkhurst (1950a), Fulton (1970), Horner and Bjornn (1981), Cramer (1990), Nehlsen et al. (1991)
Wenaha River	Extinct	K2	B	C3	Fulton (1970), Cramer (1990)
Catherine Creek	Extinct	K2	B	C3	Fulton (1970), Cramer (1990)
Minam River	Extinct	K2	B	C3	Fulton (1970), Cramer (1990)
Wallowa /Lostine rivers	Extinct	K2	B	C3	Horner and Bjornn (1981), Fulton (1970), Cramer (1990), Nehlsen et al. (1991)
Clearwater River	Extinct	K1	B	C3	Parkhurst (1950a), Horner and Bjornn (1981), Fulton (1970), Nehlsen et al. (1991)

Appendix Table 5. Proposed historic demographically independent chum salmon populations sorted by major (level-I) ecological region. Each population is characterized according to its perceived current population status and historic biodiversity. Ecological, life history and genetic diversity are characterized using the hierarchical diversity matrix (see Appendix S1).

Chum salmon population	Population status	Diversity category			Reference
		Ecological diversity	Life history diversity	Genetic Diversity	
A. Georgia Basin					
STRAIT OF GEORGIA (Mainland)					
Squamish River, Ashlu Creek	Extant	A2b	A1	A1	Hancock and Marshall (1986)
Cheakamus River	Extant	A2b	A1	A1	Hancock and Marshall (1986)
Mamquam/Stawamus rivers	Extant	A2b	A1	A1	Hancock and Marshall (1986)
East side Strait of Georgia intertidal spawners (Wakefield/Wilson creeks)	Extant	A1	A1d	A1	Hancock and Marshall (1986)
Sechelt to Howe Sound (Rainy River, Chapman/Chaster/Dakota/Flume/Langdale/Long Bay/McNab/Quillet/Potlatch/Roberts/Twin/West Bay/Williamson creeks) (Furry Creek - extinct)	Extant	A1	A1	A1	Hancock and Marshall (1986)
North Shore Burrard Inlet (Indian/Seymour/Capilano rivers, Lynn/Brothers/Eagle/Nelson creeks)	Extant	A2b	A1	A1	Hancock and Marshall (1986), DFO (1999)
South Shore Burrard Inlet (China/False creeks, unnamed creeks at Jericho Beach/Spanish Banks/Kitsilano Beach, etc)	Extinct	A1a	A1	A1	Harris (1978)
Brem River	Extant	A2b	A1	A1	Hancock and Marshall (1985c)
Kilte/Tahumming rivers	Extant	A2b	A1	A1	Hancock and Marshall (1985c)
Toba/Little Toba rivers	Extant	A2b	A1	A1	Hancock and Marshall (1985c)
Malaspina Strait (Lois River, Sliammon/Dayton/Jefferd/Kelly/Lang/Myrtle/ Saltery Bay/ Whittal/West Lake/Pender Harbour creeks, Sakinaw Lake system)	Extant	A1	A1	A1	Marshall et al. (1976a), Hancock and Marshall (1985c)

Chum salmon population	Population status	Diversity category			Reference
		Ecological diversity	Life history diversity	Genetic Diversity	
Desolation Sound (Theodosia River, Okeover/Forbes/Forbes Bay/Pendrell Sound/Salt Lagoon creeks)	Extant	A1	A1	A1	Hancock and Marshall (1985c)
Sechelt Inlet (Angus/Carlson/Doriston/Gray/Sechelt /Snake Bay/Storm Bay creeks)	Extant	A1	A1	A1	Marshall et al. (1976a)
Upper Jervis Inlet (Vancouver/Deserted/Brittain/Skwawka rivers)	Extant	A2	A1	A1	Marshall et al. (1976a)
Tzoonie River	Extant	A2	A1	A1	Marshall et al. (1976a)
STRAIT OF GEORGIA (East coast Vancouver Island)					
Tributaries to Baynes Sound (Tsable River, Chef/Cook/Cowie/Hart/McNaughton/Rosewall/Waterloo/Wilfred creeks)	Extant	A1	A1	A1	Brown et al. (1977)
Comox Harbour to south end of Discovery Passage (Oyster/ Quinsam/Campbell rivers)	Extant	A2	A1	A1	Brown et al. (1977)
Trent/Puntledge/Tsolum rivers	Extant	A2	A1	A1	Brown et al. (1977)
Nanoose Bay to south end of Baynes Sound (Englishman/Little Qualicum/Qualicum rivers, Nanoose/Bonell/French/Nile creeks)	Extant	A2	A1	A1	Marshall et al. (1976b), Brown et al. (1977)
Chemainus River and small creeks from Cowichan Bay to Nanaimo River (Bonsall/Bush/ Holland/Stocking/Walker creeks)	Extant	A1	A1	A1	Marshall et al. (1976b)
Nanaimo/Chase rivers	Extant	A1	A1	A1	Marshall et al. (1976b)
Cowichan/Koksilah rivers	Extant	A1	A1b	A1	Marshall et al. (1976b)
West side Strait of Georgia intertidal spawning (Fulford/Shawnigan creeks)	Extant	A1	A1d	A1	Marshall et al. (1976b, 1977b)
Goldstream River	Extant	A1	A1b	A1	Marshall et al. (1977b)
Saanich Peninsula (Colquitz River, Sandhill/Bowker/ Craigflower creeks)	Extinct	A1	A1	A1	Marshall et al. (1977b), Slaney et al. (1996)
LOWER FRASER RIVER					
Sumas/Chilliwack-Vedder rivers	Extant	A2a	A1	A7	Marshall et al. (1980b)

Chum salmon population	Population status	Diversity category			Reference
		Ecological diversity	Life history diversity	Genetic Diversity	
Coquihalla River, Kawkawa/ Silverhope creeks	Extant	A2	A1a	A7	Marshall et al. (1980b)
Small south shore Lower Fraser River tributaries from mouth to Hope (Lonzo/Hunter/Lorenzetta/ Wahleach creeks, Wahleach Slough)	Extant	A1b	A1a	A7	Marshall et al. (1980b)
Pitt River and tributaries (Alouette/North Alouette rivers, Blaney/Widgeon/MacIntyre creeks)	Extant	A2a	A1	A7	Hancock and Marshall (1985a)
North shore Lower Fraser River tributaries (mouth to below Stave River) (Brunette/Coquitlam rivers, Kanaka/Whonnock creeks) (Musqueem River extinct)	Extant	A1	A1	A7	Harris (1978), Hancock and Marshall (1985a, b)
Stave River	Extant	A2a	A1	A7	Hancock and Marshall (1985b), DFO (1999)
Small north shore Lower Fraser River tributaries from Stave River to Hope (Nicomem/Mountain/ Maria Sloughs, Ruby/Silverdale/ Mahood/Norrish creeks)	Extant	A1	A1	A7	Hancock and Marshall (1985b), DFO (1999)
Harrison/Chehalis rivers, Weaver Creek, Lower Harrison Lake tributaries (Cogburn/Big Silver/ Mystery/Trout Lake/Twenty Mile creeks)	Extant	A2a	A1	A7	Hancock and Marshall (1985b), DFO (1999)
PUGET SOUND					
Mainstem/South Fork Nooksack River (Fall)	Extant	A2a	A1b	A2	WDF et al. (1993), Johnson et al. (1997)
North Fork Nooksack River (Fall)	Extant	A2a	A1b	A2	WDF et al. (1993), Johnson et al. (1997)
North Puget Sound tributaries (Samish/Campbell/Nicomekl rivers)	Extant	A1b	A1b	A2	Hancock and Marshall (1985a), WDF et al. (1993), DFO (1999)
Mainstem Skagit River (fall)	Extant	A2a	A1b	A2	WDF et al. (1993), Johnson et al. (1997)
Lower Skagit River tributaries (early fall)	Extant	A2a	A1b	A2	WDF et al. (1993)
Sauk River (fall)	Extant	A2a	A1b	A2	WDF et al. (1993), Johnson et al. (1997)
North Fork Stillaguamish River (fall)	Extant	A2a	A1b	A2	WDF et al. (1993), Johnson et al. (1997)
South Fork Stillaguamish River (fall)	Extant	A2a	A1b	A2	WDF et al. (1993), Johnson et al. (1997)

Chum salmon population	Population status	Diversity category			Reference
		Ecological diversity	Life history diversity	Genetic Diversity	
Skykomish/Wallace rivers (fall)	Extant	A2a	A1b	A2	WDF et al. (1993)
Snoqualmie River (fall)	Extant	A2a	A1b	A2	WDF et al. (1993), Johnson et al. (1997)
Duwamish/Green rivers (fall)	Extant	A2a	A1b	A2	WDF et al. (1993), Johnson et al. (1997)
Puyallup/Carbon rivers, Hylebos Creek (fall)	Extant	A2a	A1b	A2	WDF et al. (1993)
Nisqually River, Chambers Creek (winter)	Extant	A2a	A1c	A2	WDF et al. (1993), Phelps et al. (1995), Johnson et al. (1997)
Central Puget Sound tributaries (Blackjack Creek) (summer)	Extant	A1b	A1a	A2	WDF et al. (1993), Phelps et al. (1995), Johnson et al. (1997)
South Puget Sound tributaries (Case/Hammersley Inlets) (Chambers Creek-extinct) (summer)	Extant	A1b	A1a	A2	Nehlsen et al. (1991), WDF et al. (1993), Phelps et al. (1995)
South Puget Sound tributaries (Henderson/Eld/Totten/Skookum/Case/Carr inlets) (fall)	Extant	A1b	A1b	A2	WDF et al. (1993), Phelps et al. (1995)
Central East Kitsap Peninsula (Gig Harbor/Olalla Creek/Dyes Inlet/Liberty Bay/Sinclair Inlet) (fall)	Extant	A1b	A1b	A2	WDF et al. (1993), Phelps et al. (1995)
HOOD CANAL					
North-eastern Hood Canal tributaries (Dewatto River, Big Beef/Seabeck/Anderson/Stavis creeks) (summer)	Extinct	A1b	A1a	B1	Phelps et al. (1995), Ames et al. (2000)
South Hood Canal tributaries (Union River) (Tahuya River, Mission Creek extinct) (summer)	Extant	A1b	A1a	B1	Phelps et al. (1995), Johnson et al. (1997), Ames et al. (2000)
Western Hood Canal tributaries (Big Quilcene/Little Quilcene/Duckabush/Hamma Hamma/ Dosewallips rivers, Lilliwaup Creek) (Skokomish River, Eagle/ Finch/Fulton/Little Lilliwaup creeks extinct) (summer)	Extant	A2b	A1a	B1	Deschamps (1954), Phelps et al. (1995), Ames et al. (2000)
Northeast Hood Canal, Dewato River (fall)	Extant	A1b	A1b	A2	WDF et al. (1993), Johnson et al. (1997)
Southeast/West Hood Canal, Lower Skokomish River (fall)	Extant	A2b	A1b	A2	WDF et al. (1993), Johnson et al. (1997)

Chum salmon population	Population status	Diversity category			Reference
		Ecological diversity	Life history diversity	Genetic Diversity	
Quilcene/Duckabush/ Dosewallips/Hamma Hamma rivers (late fall)	Extant	A2b	A1b	A2	WDF et al. (1993), Johnson et al. (1997)
Upper Skokomish River (late fall)	Extant	A2b	A1c	A2	Deschamps (1954), WDF et al. (1993), Johnson et al. (1997)
STRAIT OF JUAN DE FUCA					
Strait of Juan de Fuca (Discovery/ Sequim bays) (Chimacum/ Johnson/Morse creeks extinct) (summer)	Extant	A1b	A1a	B2	Ames et al. (2000)
Dungeness/Elwha rivers, East Strait of Juan de Fuca tributaries (Elwha River may be extinct) (fall)	Extant	A2	A1b	A2	Nehlsen et al. (1991), WDF et al. (1993), Johnson et al. (1997)
B. Coastal Rainforest					
WEST COAST VANCOUVER ISLAND					
Sooke Harbour to Port San Juan (Sooke/San Juan/Gordon rivers, Kirby/Muir/Tugwell/DeMamiel creeks) (Jordan River extinct)	Extant	B1	A2	A8	Marshall et al. (1977b)
Port San Juan to Cape Beale (Caycuse/Cheewhat/Nitinat/ Pachena/Klanawa rivers, Hobiton/ Doobah creeks)	Extant	B1	A2	A8	Brown et al. (1979b)
Barkley Sound (Somass/Sarita/ Toquart/Pipestem/Nahmint/ Maggie/Henderson/Effingham rivers)	Extant	B1	A2	A8	Brown et al. (1979b)
Amphitrite Point to Estevan Point (Clayoquot Sound, Atleo/ Bedwell/Cypre/Kennedy/ Kootowis/Megin/Moyeha/Sydney rivers)	Extant	B1	A2	A8	Brown et al. (1979c)
Estevan Point to Tatchu Point (Nootka Sound and Esperanza Inlet, Burman/Conuma/Gold/ Muchalat/Jacklah/Mooyah/ Sucwoa/Tahsis/Thupana/ Tsowwin/Zeballos rivers)	Extant	B1	A2	A8	Brown et al. (1979e)

Chum salmon population	Population status	Diversity category			Reference
		Ecological diversity	Life history diversity	Genetic Diversity	
Tatchu Point to Cape Cook (Kyuquot Sound and Checleset Bay, Artlish/Battle/Kaouk/Malksope/Nasparti/Ououkinsh/Power/Tahsish/Tatchu rivers)	Extant	B1	A2	A8	Marshall et al. (1980a)
Cape Cook to Cape Scott (Marble/Macjack/Rupert/Koprino/Klaskish/Keith/ Goodspeed rivers, etc.)	Extant	B1	A2	A8	Brown et al. (1979d)
OLYMPIC PENINSULA					
Hoko/Clallam/Sekiu rivers (fall)	Extant	B1b	A3	A4	WDF et al. (1993), Johnson et al. (1997)
Pysht/Lyre rivers, Deep/East Twin/West Twin creeks (fall)	Extant	B1b	A3	A4	WDF et al. (1993), Johnson et al. (1997)
Sooes/Waatch rivers (fall)	Extinct	B1a	A3	A4	WDF et al. (1993)
Ozette River (fall)	Extant	B1a	A3	A4	Nehlsen et al. (1991), Johnson et al. (1997)
Quillayute River (fall)	Extant	B2a	A3	A4	WDF et al. (1993), Johnson et al. (1997)
Hoh River (fall)	Extant	B2b	A3	A4	WDF et al. (1993), Johnson et al. (1997)
Queets/Clearwater rivers (fall)	Extant	B2b	A3	A4	WDF et al. (1993), Johnson et al. (1997)
Quinault River (fall)	Extant	B2a	A3	A4	WDF et al. (1993), Johnson et al. (1997)
C. Northern Coastal (Southwest Washington to Cape Blanco)					
WASHINGTON					
Moclips/Copalis rivers	Extant	C4	A2	A4	Phinney and Bucknell (1975)
Humtulsips/Hoquiam/Wishkah rivers (fall)	Extant	C2b	A2	A4	WDF et al. (1993), Johnson et al. (1997)
Chehalis River (Wynoochee/ Satsop/main Chehalis rivers) (fall)	Extant	C2a	A2	A4	WDF et al. (1993), Johnson et al. (1997)
North/Willapa/Palix rivers (fall)	Extant	C2b	A2	A4	WDF et al. (1993), Johnson et al. (1997)
Nemah/Naselle/Bear rivers (fall)	Extant	C2b	A2	A4	WDF et al. (1993), Johnson et al. (1997)
COLUMBIA RIVER					
Youngs Bay fall run	Extinct	C1	A2	A6	Myers et al. (2006)
Grays River fall run	Extant	C1	A2	A6	Myers et al. (2006)
Big Creek fall run	Extinct	C1	A2	A6	Myers et al. (2006)
Elochoman River fall run	Extinct	C1	A2	A6	Myers et al. (2006)
Clatskanie River fall run	Extinct	C1	A2	A6	Myers et al. (2006)

Chum salmon population	Population status	Diversity category			Reference
		Ecological diversity	Life history diversity	Genetic Diversity	
Mill Creek fall run	Extinct	C1	A2	A6	Myers et al. (2006)
OREGON					
Necanicum River (fall)	Extant	C2b	A3	A5	Kostow (1995), Jacobs et al. (2000)
Nehalem River (fall)	Extant	C2b	A2	A5	Kostow (1995), Jacobs et al. (2000)
Tillamook/Netarts bays (Miami/Kilchis/Wilson/Trask/ Tillamook rivers, Netarts Bay tributaries) (fall)	Extant	C2b	A2	A5	Kostow (1995), Jacobs et al. (2000)
Nestucca/Little Nestucca rivers, Neskowin Creek (fall)	Extant	C2b	A2	A5	Kostow (1995), Jacobs et al. (2000)
Salmon/Siletz rivers (fall)	Extant	C2b	A2	A5	Kostow (1995, 2000)
Yaquina River (fall)	Extant	C2b	A2	A5	Kostow (1995, 2000)
Alsea/Yachats rivers (fall)	Extant	C2b	A2	A5	Kostow (1995, 2000)
Siuslaw River (fall)	Extant	C2b	A2	A5	Kostow (1995, 2000)
Tributaries of Umpqua River Estuary (fall)	Extinct	C2b	A2	A5	Kostow (1995, 2000)
Tributaries of Coos Bay Estuary (fall)	Extant	C2b	A2	A5	Kostow (1995, 2000), Jacobs et al. (2000)
Coquille River (fall)	Extinct	C4	A3	A5	Kostow (1995, 2000), Jacobs et al. (2000)
D. Klamath Mountains Province					
Cape Blanco to Klamath River (remnant may exist in Mill Creek on Smith River)	Extant	D3	A2	C1	Snyder (1908b), Nehlsen et al. (1991), Higgins et al. (1992), Frissel (1993), Moyle et al. (1995)
Klamath River	Extinct (original population existence uncertain)	D2	A2	C1	Snyder (1908b, 1931), Nehlsen et al. (1991), Frissel (1993), Moyle et al. (1995)
E. Northern California (South of Klamath River to San Lorenzo River)					
Coastal streams south of Klamath River	Extinct (original population existence uncertain)	E1	A3	C1	Snyder (1908b), Frissel (1993), Moyle et al. (1995)
G. California Central Valley					

Chum salmon population	Population status	Diversity category			Reference
		Ecological diversity	Life history diversity	Genetic Diversity	
Sacramento River	Extinct (original population existence uncertain)	G3	C	C2	Snyder (1908a), Scofield (1916), Hallock and Fry (1967), Nehlsen et al. (1991), Moyle et al. (1995)
H. Willamette River Valley and Lower Columbia River					
Scappoose Creek fall run	Extinct	H3	A2	A6	Myers et al. (2006)
Cowlitz River fall-run	Extant	H2	A2	A6	Myers et al. (2006)
Cowlitz River summer run	Extant	H2	A4	A10	Myers et al. (2006)
Kalama River fall run	Extinct	H2	A2	A6	Myers et al. (2006)
Lewis River fall run	Extinct	H2	A2	A6	Myers et al. (2006)
Salmon Creek fall run	Extinct	H2	A2	A6	Myers et al. (2006)
Clackamas River fall run	Extinct	H2	A2	A6	Myers et al. (2006)
Washougal River fall run	Extinct	H2	A2	A6	Myers et al. (2006)
Sandy River fall run	Extinct	H2	A2	A6	Myers et al. (2006)
Lower Columbia River Gorge Tributaries fall run	Extant	H3	A2	A6	Myers et al. (2006)
Upper Columbia River Gorge Tributaries fall run	Extinct	H3	A2	A6	Myers et al. (2006)
I. Mid-Columbia River					
Upstream of Celilo Falls (Umatilla/Walla Walla rivers)	Extinct (original population existence uncertain)	I1b	B	A9	Cramer (1990), Nehlsen et al. (1991)

Appendix Table 6. Proposed historic demographically independent pink salmon populations sorted by major (level-I) ecological region. Each population is characterized according to its perceived current population status and historic biodiversity. Ecological, life history and genetic diversity are characterized using the hierarchical diversity matrix (see Appendix S1).

Pink salmon population	Population status	Diversity category			Reference
		Ecological diversity	Life history diversity	Genetic Diversity	
A. Georgia Basin					
STRAIT OF GEORGIA (Mainland)					
Burrard Inlet (Indian/Seymour/ Capilano rivers) (False/Jericho/ Spanish Banks creeks extinct) (odd year)	Extant	A2b	A2	B1	Harris (1978), Hancock and Marshall (1986), DFO (1999)
Squamish River, Ashlu Creek (odd year)	Extant	A2b	A2a	B1	Hancock and Marshall (1986)
Mamquam/Cheakamus rivers (odd year)	Extant	A2b	A2	B1	Hancock and Marshall (1986)
Brem/Tahumming/Kilte rivers (odd year)	Extant	A2b	A2	B1	Hancock and Marshall (1985c)
Toba/Little Toba rivers	Extant	A2b	A2	B1	Hancock and Marshall (1985c)
Theodosia River, Forbes Creek	Extant	A1	A2	B1	Hancock and Marshall (1985c)
Upper Jervis Inlet (Vancouver/ Deserted/Brittain/Skwawka rivers) (odd year)	Extant	A2	A2	B1	Marshall et al. (1976a)
Sechelt Inlet, Tzoonie River (odd year)	Extant	A2	A2	B1	Marshall et al. (1976a)
STRAIT OF GEORGIA (East coast Vancouver Island)					
Oyster River (odd year)	Extinct	A2	A2b	B1	Brown et al. (1977)
Oyster River (even year)	Extinct	A2	A1b	A2	Brown et al. (1977)
Puntledge River (odd year)	Extant	A2	A2b	B1	Brown et al. (1977)
Puntledge River (even year)	Extant	A2	A1b	A2	Brown et al. (1977)
Tsable River (odd year)	Extant	A1	A2b	B1	Brown et al. (1977)
Tsable River (even year)	Extant	A1	A1b	A2	Brown et al. (1977)
Tsolum River (odd year)	Extant	A1	A2b	B1	Brown et al. (1977)
Tsolum River (even year)	Extant	A1	A1b	A2	Brown et al. (1977)
Campbell River (odd year)	Extant	A1	A2b	B1	Marshall et al. (1977a)
Campbell River (even year)	Extant	A1	A1b	A2	Marshall et al. (1977a)

Pink salmon population	Population status	Diversity category			Reference
		Ecological diversity	Life history diversity	Genetic Diversity	
Quinsam River (odd year)	Extant	A1	A2b	B1	Marshall et al. (1977a)
Quinsam River (even year)	Extant	A1	A1b	A2	Marshall et al. (1977a)
Chemainus River (odd year)	Extinct	A1	A2	B1	Marshall et al. (1976b)
Nanaimo River (even year)	Extinct	A2b	A1	A	Marshall et al. (1976b)
Nanaimo River (odd year)	Extinct	A2b	A2	B	Marshall et al. (1976b)
LOWER FRASER RIVER					
Sumas/Chilliwack-Vedder rivers (odd year)	Extant	A2	A2b	B1	Marshall et al. (1980b), DFO (1999)
Small north shore Fraser River tributaries below Fraser River Canyon (Kanaka/Whonnock/ Morris/Mahood /Ruby/ Silverdale creeks, Maria Slough) (Brunette River, Musqueem Creek extinct) (odd year)	Extant	A1	A2b	B1	Harris (1978), Marshall et al. (1980b), DFO (1999)
Small south shore Fraser River tributaries below Fraser River Canyon (Coquihalla River, Kawkawa/Silverhope creeks) (Wahleach Creek extinct) (odd year)	Extant	A1	A2b	B1	Marshall et al. (1980b), DFO (1999)
Harrison/Chehalis rivers, Weaver Creek (odd year)	Extant	A2a	A2b	B1	Hancock and Marshall (1985b), DFO (1999)
Pitt River and tributaries, Coquitlam River (Alouette/ North Alouette rivers) (Coquitlam River extinct) (odd year)	Extant	A2a	A2b	B2	Hancock and Marshall (1985b), DFO (1999)
Stave River (odd year)	Extant	A2a	A2b	B1	Hancock and Marshall (1985b), DFO (1999)
PUGET SOUND					
North Fork/Middle Fork Nooksack River (odd year)	Extant	A2a	A2b	B2	WDF et al. (1993), Hard et al. (1996)
South Fork Nooksack River (odd year)	Extant	A2a	A2b	B2	WDF et al. (1993), Hard et al. (1996)
Skagit River (odd year)	Extant	A2a	A2b	B2	WDF et al. (1993), Hard et al. (1996)
North Fork Stillaguamish River (odd year)	Extant	A2a	A2b	B2	WDF et al. (1993), Hard et al. (1996)
South Fork Stillaguamish River (odd year)	Extant	A2a	A2b	B2	WDF et al. (1993), Hard et al. (1996)
Snohomish River (odd year)	Extant	A2a	A2b	B2	WDF et al. (1993), Hard et al. (1996)
Snohomish River (even year)	Extant	A2a	A1	A3	WDF et al. (1993), Hard et al. (1996)
Puyallup River (odd year)	Extant	A2a	A2b	B2	WDF et al. (1993), Hard et al. (1996)

Pink salmon population	Population status	Diversity category			Reference
		Ecological diversity	Life history diversity	Genetic Diversity	
Nisqually River (odd year)	Extant	A2a	A2b	B2	WDF et al. (1993), Hard et al. (1996)
HOOD CANAL					
Hamma Hamma/Duckabush/ Dosewallips rivers (odd year)	Extant	A2b	A2b	B3b	WDF et al. (1993), Hard et al. (1996)
STRAIT OF JUAN DE FUCA					
Upper Dungeness River (odd year) (summer)	Extant	A2a	A2a	B3a	WDF et al. (1993), Hard et al. (1996)
Lower Dungeness River (odd year) (fall)	Extant	A2a	A2b	B3b	WDF et al. (1993), Hard et al. (1996)
Elwha River (odd year)	Extinct	A2b	A2b	B3	WDF et al. (1993), Hard et al. (1996)
B. Coastal Rainforest					
WEST COAST VANCOUVER ISLAND					
Sooke Harbour to Estevan Point (Barkley Sound, Clayuquot Sound, Gordon/San Juan/ Effingham/Franklin/Nahmint/ Sarita/Somass/Atleo/Bedwell/ Cypre/Megin/Moyeha/Sydney rivers) (Jordan River extinct) (even year)	Extant	B1	A1	A2	Marshall et al. (1977b), Brown et al. (1979b)
Estevan Point to Tatchu Point (Nootka Sound and Esperanza Inlet, Burman/Conuma/Gold/ Muchalat/Leiner/Mooyah/ Sucwoa/Tahsis/Thupana/ Tsowwin/ Zeballos rivers) (even year)	Extant	B1	A1	A2	Brown et al. (1979c)
Tatchu Point to Cape Cook (Kyuquot Sound and Checleset Bay, Artlish/Battle/Kaouk/ Kashutl/Malksope/Nasparti/ Ououkinsh/Power/Tahsish/ Tatchu rivers) (even year)	Extant	B1	A1	A2	Marshall et al. (1980a)
Cape Cook to Cape Scott (Koprino River, Kwatleo Creek, etc.) (even year)	Extant	B1	A1	A2	Brown et al. (1979d)
Sooke Harbour to Cape Cook (Gordon/Effingham/Nahmint/ Somass/Moyeha/Artlish/Power rivers) (odd year)	Extant	B1	A2	B1	Marshall et al. (1977b, 1980a), Brown et al. (1979b, c, e)

Pink salmon population	Population status	Diversity category			Reference
		Ecological diversity	Life history diversity	Genetic Diversity	
Cape Cook to Cape Scott (Koprino River, Kwatleo Creek, etc.) (odd year)	Extant	B1	A2	B1	Brown et al. (1979d)
D. Klamath Mountains Province					
Klamath River	Extinct (original population existence uncertain)	D2	A2	C1	Nehlsen et al. (1991)
E. Northern California (South of Klamath River to San Lorenzo River)					
Russian River	Extinct (original population existence uncertain)	E2	A2	C1	Nehlsen et al. (1991), SEC (1996)
G. California Central Valley					
Sacramento River	Extinct (original population existence uncertain)	G3	A2	C2	Jordan and Gilbert (1882), Jordan and Evermann (1896), Hallock and Fry (1967), Nehlsen et al. (1991), Moyle et al. (1995)

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