Transactions of the American Fisheries Society 134:1271–1273, 2005
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DOI: 10.1577/T05-008.1

[Note]

Nomenclature of Mitochondrial DNA Haplotypes for *Oncorhynchus mykiss*

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Abstract.—Congruence of genetic data is critical for comparative and collaborative studies on natural fish populations. A comprehensive list of reported mitochrondrial DNA haplotypes for *Oncorhynchus mykiss* generated using the S-Phe/P2 primer set is presented as a resource for future investigations of this species.

Mitochondrial DNA (mtDNA) haplotypes for rainbow trout *Oncorhynchus mykiss* (resident and anadromous forms) have been used to study the phylogeography of this species and to address management concerns. The current nomenclature scheme for *O. mykiss* haplotypes was first implemented by Nielsen et al. (1997a) using the S-Phe/P2 primer set (see Nielsen et al. 1994a for complete primer sequences). This nomenclature was developed to identify mtDNA sequences specific to this species. In an effort to clarify *O. mykiss* mtDNA D-loop/control region haplotypes derived from this primer set, we present a list of known haplotypes published between 1994 and 2004 and their respective variable nucleotide sites relative to MYS1 (Table 1). Clarification of haplotype designations has been initiated because duplication of a previously reported haplotype has been observed and a description of known haplotypes may prevent further reclassification issues. The unique haplotype designated MYS19 by Brown et al. (2004) has been reclassified as MYS28 because of duplication with Nielsen (1997b). A second haplotype originally designated BC1 by McCusker et al. (2000) has been colisted as MYS29 to follow the established nomenclature. Unification of data derived from nuclear molecular markers (allozymes and microsatellites) is a priority for population geneticists, and mtDNA haplotype nomenclature should follow this effort. GenBank accession numbers for MYS haplotypes are provided in Table 1. *Oncorynchus mykiss* sequences derived from S-Phe/P2 primers should be aligned with known sequences by using GenBank search engines to confirm existing haplotypes or to establish new haplotypes (http://www.ncbi.nlm.nih.gov).

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Received January 10, 2005; accepted March 24, 2005.
Published online August 23, 2005

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TABLE 1.—Mitochondrial DNA (mtDNA) haplotypes and variable nucleotide sites for *Oncorhynchus mykiss* reported between 1994 and 2004. Nucleotide variable sites are indicated in bold, and the nucleotide numbering scheme is based on Digby et al. 1992. Reported locations for each haplotype are Alaska (AK), British Columbia (BC), California (CA), Idaho (ID), Mexico (MX), Oregon (OR), and Washington (WA). Asterisks represent missing nucleotides from a 72-base-pair deletion found in Rio Yaqui trout (MYS17).

mtDNA haplotype	GenBank accession number	Reported location(s)	Variable nucleotide number										
			986	988	1,021	1,032	1,044	1,050	1,052	1,062	1,063	1,074	1,086
MYS1[a,b]	AY954373	AK, BC, CA, ID, OR, WA	A	A	T	G	G	T	T	A	G	T	T
MYS2[a,b]	AY954374	CA, ID, WA	A	A	**C**	G	G	T	T	A	G	T	T
MYS3[a,b]	AY954375	AK, BC, CA	A	A	T	G	G	T	T	A	G	T	T
MYS4[a,b]	AY954376	CA	A	A	T	G	G	T	T	A	G	T	**C**
MYS5[a,b]	AY954377	CA	A	A	T	G	G	T	T	A	G	T	**C**
MYS6[a,b]	AY954378	CA	A	A	T	G	G	**C**	T	A	G	T	**C**
MYS7[a,b]	AY954379	CA	A	A	T	G	G	T	T	A	G	T	**C**
MYS8[a,b]	AY954380	CA	A	A	T	G	G	T	T	A	G	T	**C**
MYS9[a,b]	AY954381	BC, CA, ID, WA	A	A	T	G	G	T	T	A	G	T	T
MYS10[a,b]	AY954382	AK, CA	A	A	T	G	G	T	**C**	A	G	T	T
MYS11[a,b]	AY954383	CA	A	A	T	G	**A**	T	T	A	G	T	T
MYS12[a,b]	AY954384	AK, BC, CA, ID	A	A	T	G	G	T	T	A	G	T	**C**
MYS13[a,b]	AY954385	CA	A	A	T	G	G	T	T	A	G	T	**C**
MYS14[a,b]	AY954386	CA	A	A	**C**	G	G	T	T	A	G	T	T
MYS15[b]	AY954387	CA	A	A	T	G	G	T	T	A	G	T	T
MYS16[b]	AY954388	CA	A	A	T	G	G	T	T	A	G	T	T
MYS17[b]	AY954389	MX	A	A	T	*	*	*	*	*	*	*	*
MYS18[b]	AY954390	MX	A	A	T	G	G	**C**	T	A	G	T	T
MYS19[c]	AY954391	MX	A	A	T	G	G	**C**	T	A	G	**A**	T
MYS20[c]	AY954392	MX	A	**G**	T	G	G	T	T	A	G	T	T
MYS21[d]	AY954393	AK	A	A	T	G	G	T	T	A	**A**	T	T
MYS22[e]	AY961990	OR	A	A	**C**	G	G	T	T	A	G	T	T
MYS23[e]	AY961991	ID	A	A	T	G	G	T	T	A	G	T	T
MYS24[e]	AY961992	ID	A	A	T	G	G	T	T	A	G	T	T
MYS25[e]	AY961993	ID	**G**	A	**C**	G	G	T	T	A	G	T	T
MYS26[e]	AY961994	ID	A	A	T	G	G	T	T	**G**	G	T	T
MYS27[e]	AY961995	WA	A	A	**C**	G	G	T	T	A	G	T	T
MYS28[e]	AY961996	ID, WA	A	A	T	G	G	T	T	A	G	T	T
BC1[f]/MYS29	AF254862	BC	A	A	**C**	G	G	T	T	A	G	T	**C**

[a] Nielsen et al. 1994b.
[b] Nielsen et al. 1998.
[c] Nielsen 1997b.
[d] Thrower et al. 2004.
[e] Brown et al. 2004.
[f] McCusker et al. 2000.

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TABLE 1.—Extended.

mtDNA haplotype	Variable nucleotide number											
	1,097	1,103	1,104	1,106	1,109	1,111	1,113	1,128	1,132	1,133	1,147	1,149
MYS1[a,b]	G	A	G	A	G	C	A	C	T	T	G	C
MYS2[a,b]	G	A	G	A	G	C	A	C	T	T	G	C
MYS3[a,b]	G	A	G	A	**A**	C	A	C	T	T	G	C
MYS4[a,b]	G	**G**	G	A	G	C	A	C	T	T	G	C
MYS5[a,b]	G	**G**	G	**C**	G	C	A	C	T	T	**A**	C
MYS6[a,b]	G	**G**	G	**C**	G	C	A	C	T	T	**A**	C
MYS7[a,b]	G	A	G	A	G	C	A	C	T	T	**A**	C
MYS8[a,b]	G	A	G	**C**	G	C	A	C	T	T	**A**	C
MYS9[a,b]	G	A	G	A	G	C	A	C	T	T	**A**	C
MYS10[a,b]	G	A	G	A	**A**	C	A	C	T	T	G	C
MYS11[a,b]	G	A	G	A	G	C	A	C	T	T	G	C
MYS12[a,b]	G	A	G	**C**	G	C	A	C	T	T	G	C
MYS13[a,b]	G	**G**	G	**C**	G	C	A	C	T	T	G	C
MYS14[a,b]	G	A	G	A	**A**	C	A	C	T	T	G	C
MYS15[b]	G	A	**A**	A	**A**	C	A	C	T	T	G	C
MYS16[b]	G	A	G	A	G	C	A	C	T	T	**A**	**T**
MYS17[b]	*	*	G	A	G	C	A	C	T	T	G	C
MYS18[b]	G	A	G	A	G	C	A	C	T	T	G	C
MYS19[c]	G	A	G	A	G	C	A	C	T	T	G	C
MYS20[c]	G	A	G	A	G	**A**	A	**T**	**C**	T	**A**	C
MYS21[d]	G	A	G	A	G	C	A	C	T	T	G	C
MYS22[e]	G	A	G	**C**	G	C	**C**	C	T	T	G	C
MYS23[e]	G	A	G	A	**T**	C	A	C	T	T	**A**	C
MYS24[e]	**A**	A	G	A	G	C	A	C	T	T	G	C
MYS25[e]	G	A	G	A	G	C	A	C	T	T	G	C
MYS26[e]	G	A	G	A	G	C	A	C	T	T	G	C
MYS27[e]	G	A	G	A	G	C	A	C	T	**C**	G	C
MYS28[e]	G	A	G	A	G	C	A	C	T	**C**	G	C
BC1[f]/MYS29	G	A	G	**C**	G	C	A	C	T	T	G	C