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**Genetic Structure of Returning Chum Salmon Population 2015 Inferred from  
Microsatellite DNA Marker**

by

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# Genetic Structure of returning Chum Salmon Population 2015 Inferred from Microsatellite DNA Marker

## Abstract

The population structure of chum salmon was examined in a total of 730 samples collected from nine geographical groups: five localities (Myeongpa River, Namdae River, Yeongok River, Wangpi River and Taehwa River) on the east side of the Korean Peninsula, two localities (Tokachi River and Chitose River) on the Hokkaido Island, Japan, one locality (Solomon River) on the Alaska, United States and one locality (East Alsek River) on the Canada, by using 10 microsatellite DNA marker. Each populations clearly separated clusters for Nei's genetic distance on the nation but differentiation test between all pairs of samples were not significant.

Keyword : Genetic structure, population structure, microsatellite, genetic distance

Table 1.  $F_{ST}$  (below diagonal) and Nei's genetic distance (upper diagonal) between all populations of chum salmon

	Namdae	Myeongpa	Yeongok	Wangpi	Taehwa	Solomon	East Alsek	Chitose	Tokachi
Namdae River	0	0.041	0.038	0.043	0.030	0.274	0.395	0.208	0.229
Myeongpa River	0.005	0	0.037	0.043	0.029	0.261	0.389	0.190	0.219
Yeongok River	0.004	0.004	0	0.038	0.026	0.262	0.404	0.193	0.218
Wangpi River	0.005	0.006	0.004	0	0.036	0.248	0.404	0.196	0.206
Taehwa River	0.003	0.004	0.003	0.004	0	0.266	0.376	0.199	0.219
Solomon River	0.026	0.025	0.025	0.024	0.026	0	0.283	0.231	0.236
East Alsek River	0.038	0.040	0.041	0.040	0.038	0.031	0	0.328	0.352
Chitose River	0.019	0.020	0.020	0.019	0.019	0.023	0.031	0	0.139
Tokachi River	0.021	0.023	0.022	0.019	0.021	0.023	0.034	0.013	0

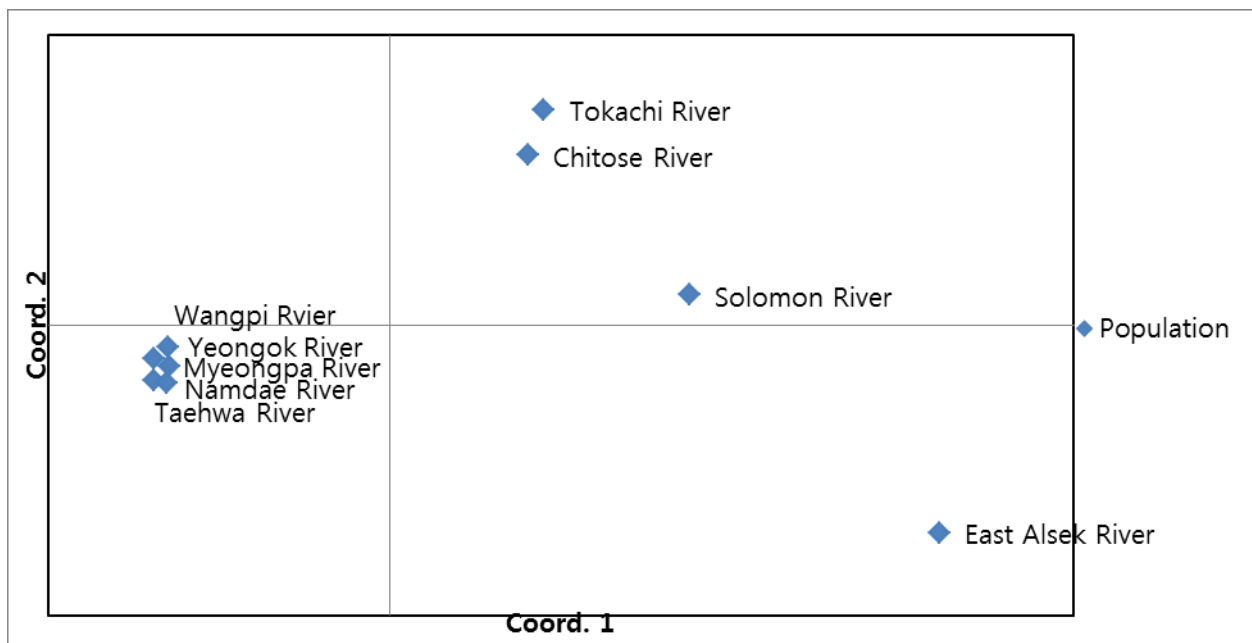


Figure 1. Principal Coordinates Analysis using Nei's genetic distance