

Chilean Jack Mackerel
Workshop

Genetic variation on mtDNA Cytb sequence of three populations of Chilean jack mackerel (*Trachurus murphyi*) from the Southern Pacific

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Samples collection

n beyond Chile's EEZ

q OEZ2006—22 samples

q OEZ2007---20 samples

n collected inside of Chile's EEZ in 2006

----bought from fish market of

Valparaiso port .

q IEZ2006 --- 4 samples

Species	Sampling area		Locality	GeneBank Access ion No
	Latitude	Longitude		Cytb
<i>T.murphyi</i> OEZ2006	32° 30.0'S 34° 30.0'S	94° 30. 0'W 95° 30. 0'W	fishing ground	-
<i>T.murphyi</i> OEZ2007	34° 30.0'S 35° 30.0'S	92° 30. 0'W 94° 30. 0'W	fishing ground	AY526538
<i>T.murphyi</i> IEZ2006	33° 02.0'S	71° 39. 0'W	Valparaiso port	-

Results

- n 11 haplotypes were found in 39 analyzed samples
 - n only one haplotype was shared among three populations,
 - n which has 23 polymorphic sites in analyzed 730 bp sequence.
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- n 3 and 22 polymorphic sites were detected in OEZ2006 and OEZ2007 respectively,
 - n No sequence variation was found in IEZ2006
 - n The haplotype diversity ratios were 0.3309, 0.6405 and 0.0000;
 - n and nucleotide diversity ratios were 0.0005, 0.0043 and 0.0000 in OEZ2006, OEZ2007 and IEZ2006 respectively.
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- n AMOVA analysis indicated that no significant genetic divergence among three populations.
 - n NJ tree showed that all individuals from three populations clustered into one clade.
 - n Conclusion: the three fish stocks of Chilean Jack mackerel inside and outside of EEZ in the Southern Pacific could be one population
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