Genetic variability in four hatchery strains of coho salmon, Oncorhynchus kisutch (Walbaum), in Chile

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Coho salmon. Oncorhynchus kisutch (Walbaum). is intensively cultured in Chile. An increasing proportion of the eggs necessary to sustain the culture are locally produced by some hatcheries. However, there is no information about the origin or the genetic variability in these strains. The present study analysed allozymic variability and its distribution within and between some commercial strains of coho salmon in southern Chile. The genetic variability was estimated using horizontal starch gel electrophoresis. Samples of coho salmon were obtained randomly from four Chilean hatcheries. Twenty-five enzymatic systems were examined, representing 51 enzymatic loci. Eight loci showed variability in at least one strain, which represented a total polymorphism (P) of 15.7%. Only the PGM-1* locus was variable in all strains. The remaining loci were fixed in at least one strain. Total heterozygosity (HT) and within population heterozygosity (HS) were 0.35% and 0.36% respectively. The index of gene