

完全同胞によるヒメマスの海水耐性および高水温耐性形質 における広義の遺伝率と変動指数の推定

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Estimation of Broad Sense Heritability and Degree of Fluctuation
for Tolerance to Sea Water and High water Temperature
by Single Pair Mating System in Kokanee Salmon(*Oncorhynchus nerka*).

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要 約

ヒメマスの海水耐性および高水温耐性形質の遺伝的変異性を明らかにするために、平均死亡時間を用いて、雌雄一対交配によって作出した23組の完全同胞による広義の遺伝率と変動指数を求めた。その結果、海水耐性形質および高水温耐性形質には高い遺伝的変異性が保有されており、選択育種によって海水耐性および高水温耐性品種の作出が可能であると考えられた。

Average time of death was used to determine kokanee salmon's heritability for tolerance to sea water and for high water temperature.

For tolerance to sea water, a broad sense of heritability was calculated as 0.894, and the degree of fluctuation was calculated as 0.319 by a single pair mating system. These results indicate this trait's high genetic variability in kokanee salmon.

For tolerance to high water temperature, a broad sense of heritability was calculated as 0.422, and the degree of fluctuation was calculated as 0.176 by a single pair mating system. These results indicate this trait's high genetic variability in kokanee salmon.

Based on these results, an effective selection for sea water and for high water temperature tolerance would be expected in the population surveyed.