

HYBRIDIZATION BETWEEN WESTSLOPE CUTTHROAT TROUT AND RAINBOW TROUT IN AN AREA OF NATURAL SYMPATRY: THE KOOTENAI RIVER DRAINAGE, USA

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Trout populations ($n = 103$) in the Kootenai River drainage were determined to be native westslope cutthroat trout (38), native redband trout (36), or hybrid swarms between rainbow (coastal rainbow and/or redband) and westslope cutthroat trout (29) using data from four diagnostic allozyme loci. There are no known diagnostic allozyme loci between redband and coastal rainbow trout. Coastal rainbow trout populations, however, generally have lower LDH-B2*76 and higher sSOD-1*152 frequencies than redband trout populations. A higher proportion of coastal rainbow trout populations (80%) possess sSOD-1*152 than redband populations (50%). Therefore, if coastal rainbow trout had a significant genetic contribution to hybrid swarms, three trends should be apparent in the data: 1) a higher proportion of hybrid swarms should possess sSOD-1*152 than redband populations, 2) on the average hybrid swarms should have lower LDH-B2*76 and higher sSOD-1*152 frequencies than redband populations, and 3) when hybrid swarms are included with redband populations there should be a negative correlation between the LDH-B2*76 and sSOD-1*152 frequencies. All three trends were observed in the data indicating that the introduction of coastal rainbow trout is the likely mechanism for the breakdown of reproductive isolation between westslope cutthroat and redband trout in the Kootenai River drainage.