

*Full. L. Kocancusa*



DEPARTMENT OF ZOOLOGY

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FISHERIES

Joe Huston  
Dept. of Fish, Wildlife  
and Parks  
490 North Meridian  
Kalispell, MT 59901

Dear Joe:

I have finished examining the two hatchery stocks from Young Creek and Ashley Lake. This letter is a short summary of the results of the analysis.

Young Creek--The trout sample from the Young Creek hatchery stock is a hybrid mixture of westslope and yellowstone cutthroat trout. Only 3.8% of the diagnostic alleles are of yellowstone cutthroat origin, however, 10 of the 25 fish examined were identified as hybrids. These hybrids have alleles characteristic of both sub-species at at least one locus. The other 15 trout showed no evidence of any yellowstone alleles at the eight diagnostic loci and are westslope cutthroat trout. The westslope cutthroat trout are typical of other westslope cutthroat trout populations we have examined. Two loci are genetically variable: Idh-3, and Ldh-4. The Idh-3 variation is the same that is found in the Murray Springs broodstock. A rare allele variant was found at Ldh-4 in one fish that has not been observed in cutthroat trout in Montana.

Ashley Lake--The trout sample from the Ashley Lake hatchery stock is a tri-hybrid mixture of 55% rainbow trout, 40% yellowstone cutthroat trout, and 5% westslope cutthroat trout. Every one of the 44 individuals examined were hybridized, some containing alleles characteristic of all three trout species and others containing alleles of only two of the species. The stock has a high amount of genetic variation due mainly to the extensive hybridization, although a lot of the variation comes from natural variation occurring in rainbow trout.

If you have any questions on the data or my interpretations, please let me know.

Sincerely,

*Stevan R. Phelps*  
Stevan R. Phelps

cc George Holton  
Emmett Colley

*4 these are fish that ran from L. Kocancusa into Young Creek and were trapped and held at Somers Hatchery. After this report they were all planted in Triangle Pond (02-6508) and Cabin Lake (07-5600)*

*- SDA. 7 Apr 81*