COLLECTION OF SAMPLES TO DETECT HYBRIDIZATION: ONE OF THESE THINGS MAY NOT BE LIKE THE OTHER

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Hybridization is an important factor to consider for the conservation of many native stream fishes. Fisheries biologists often collect samples to test for hybridization where there is ready access to stream habitats or in spatially limited stream reaches. Because stream salmonids are highly mobile animals and rapidly re-assort into mixed stock assemblages, it is often difficult to interpret the meaning of results obtained for hybridization assays at the population level. We have assayed 35 samples (n = 14-35 fish) at five codominant diagnostic microsatellite loci to determine the geographic distribution of hybrids in the Jocko River Basin. Samples were collected in 100-m sections with a backpack electrofisher. We detected hybridized individuals at only 3 of 16 sites in the South Fork Jocko River in preliminary analysis. One of those sites was non-adjacent to the other two indicating the distribution of hybrid fish in that system is variable. To design a robust sampling strategy to determine the hybridization status of a population, we assessed the spatial variability of samples in 47 stream km of the upper Jocko River drainage.