Tracking Fluvial Cutthroat Trout Movement With Stable Isotope Markers in A Stream network

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Movement between environments is a common phenomenon across taxa because it allows individuals to match their phenotype to the biotic and abiotic conditions that maxi-mize fitness. However, biologists and managers did not consider movement between distinct habitats important for stream-resident fishes until recently because field methods and monitoring favored relocating immobile fish or fish large enough for tags. As a result, little is known about the frequency of movement in stream fishes and the critical locations that fishes move lo within a stream network. We used stable isotope analysis to provide precise information about individual movement patterns and frequency for Bonneville cutthroat trout (*Oncorhynchus clarkii utah;* BCT) combined site-specific and trophic level-specific N Isotopic signatures of BCT to estimate the frequency of movement to downstream environments. to identify downstream environments that fluvial BCT move into from headwater streams. and to identify important food resources in these habitats.