Captured Juvenile Salmonids Used to Understand Hood Canal Rivers' Demographics

Dale Gorichanaz, Josh O'Hara, and Erik McDonald

Salmonid populations in the Hood Canal region were once robust, but in recent decades have declined dramatically. Restoration and monitoring efforts have recently been put in place, using Big Beef Creek populations as the index stock in which surrounding stream populations were extrapolated from. However, this does not give an accurate representation of the populations in each stream individually, so focus is shifting to get more personalized data for each stream. To get accurate population dynamics, rotary screw traps were installed in the little Quilcene, Tahuya, and Dewatto rivers to capture salmonid fry, parr, and smolts, specifically Coho (*Oncorhynchus kisutch)* and Steelhead trout (*Oncorhynchus mykiss*). Captured target fish were counted, identified, and scale sampled for biological information before being released downstream. Select fish were marked and released upstream to test for trap efficacy. Data indicate healthy and equal populations of coho across streams, but major differences between outgoing steelhead, especially in the Dewatto and Tahuya rivers. With these data, a better understanding of how salmonid populations fluctuate annually, as well as how restoration efforts affect salmonids can be understood at the stream level. Organizations, communities and tribes from three counties rely upon and co-manage salmonid populations, so this gathered data is crucial to forecast returns, as well as be the foundation for the restoration of salmonids in the Hood Canal region.