

Examining the Efficacy of Bullfrog Removal in Thurston County: Implications for Oregon Spotted Frog Recovery

The Black River Unit of Billy Frank Jr. Nisqually National Wildlife Refuge stands as one of the final refuges for endangered Oregon Spotted Frog in Washington State. American Bullfrogs, an invasive competitor species, share this habitat. In 2022, a project commenced to remove American Bullfrogs from this area. To optimize removal success, we assessed spatial and temporal patterns of American Bullfrog populations by synthesizing field data collected over two seasons. We used this data to calculate catch per unit effort (CPUE) to infer any correlation between CPUE and variations in water and air temperatures. We then analyzed bullfrog snout-to-vent length (SVL), a crucial indicator of age and breeding potential, to investigate whether frog size decreased over time. Preliminary findings suggest that prioritizing removal efforts during periods of warmer average temperatures may result in a higher CPUE. The observed decrease in size implies effective targeting of breeding populations and thus some success in mitigating their reproductive capacity. The decline in bullfrog captures in 2023 suggests ongoing removal efforts may be effective. Continuous monitoring and adaptive management strategies are vital for long-term conservation of Oregon Spotted Frog in the Black River watershed.