Captured Juvenile Salmonids Used to Understand Hood Canal Species Demographics

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Introduction

- The Hood Canal was once a major producer of Coho Salmon (*Onchornicous kisutch*) and Steelhead (*Onchorncious mykiss*) but have greatly declined (David, 2023).

- Loss has degraded surrounding ecosystems, cultures, and economy (David, 2023).

- Stock managers monitor region through Big Beef Creek and extrapolate to smaller streams (David, 2023).

- Hypothesized that Hood Canal streams are not as uniform as previously suspected and have unique challenges that are not well represented by big beef creek extrapolations.

Figure 1: Hood Canal region with river trap locations

Methods

- Installed rotary screw trap on Dewatto, Tahuya, and Little Quilcene rivers. (Figure 1).

Figure 2: Rotary screw trap

- Checked trap live box daily to identify fish by species and life cycle stage.
- Released non target fish, set aside Coho and Steelhead for measuring.

Figure 3: workers check live well

- Coho and Steelhead are anesthetized via MS222.
- Took scale samples, measured, and investigated for recapture marks.
- Clipped new captured steelhead fins for identification.
- Stained new captured Coho with Bismark brown for identification.
- Mark recapture analysis used to estimate total number of species present, data sent to WDFW and Tribes.

Results
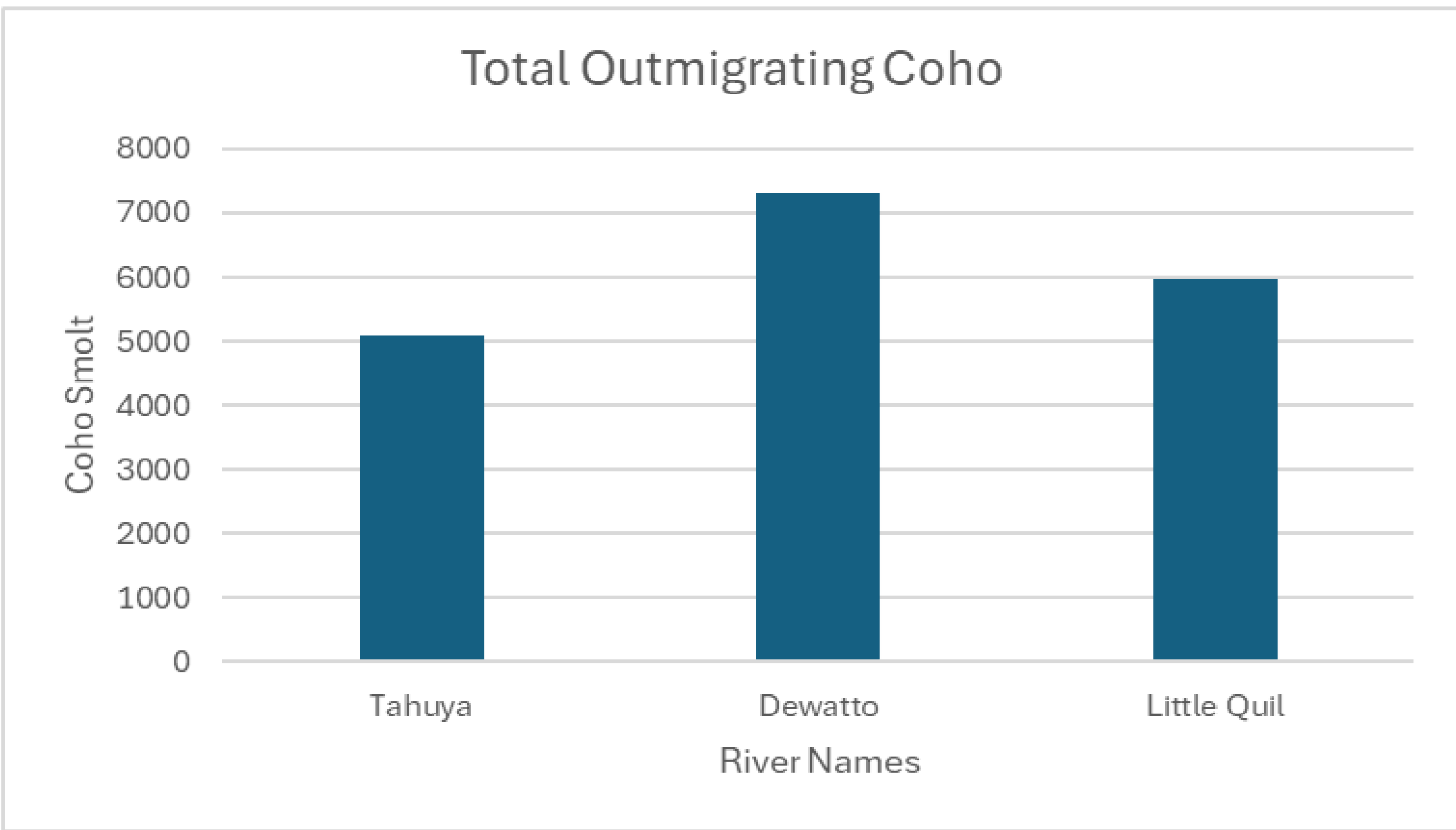
Coho Populations similar and robust between rivers, Table 1
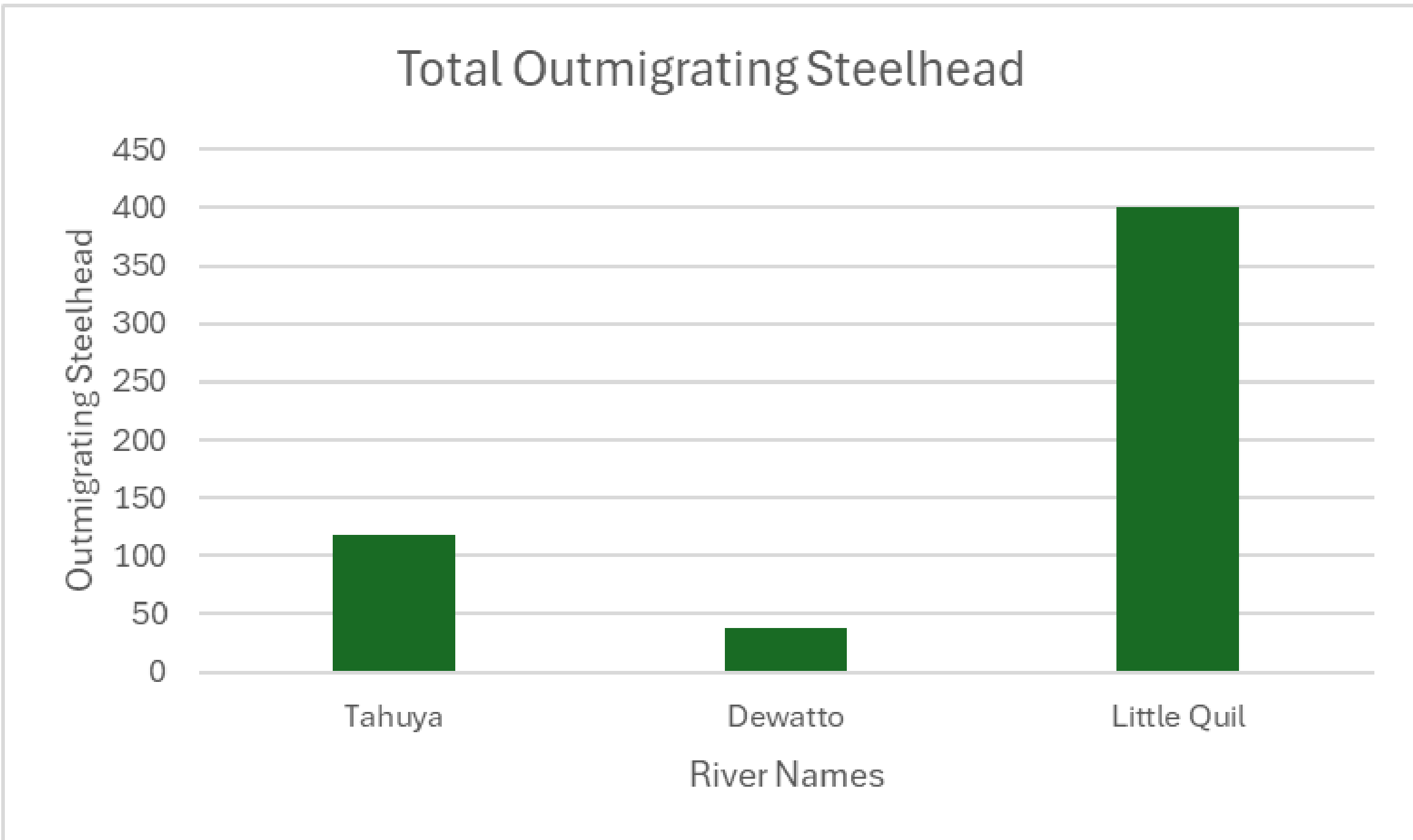
Steelhead numbers low and variable, with Dewatto being lowest, then Tahuya, Table 2

Discussion

- Hypothesized that forest degradation has reduced Tahuya and Dewatto steelhead population.
- Planning riparian restoration along rivers to stabilize river and salmon rearing habitat.
- Continued monitoring planned of rivers, move away from singe point Big Beef Creek monitoring.

Acknowledgements

References