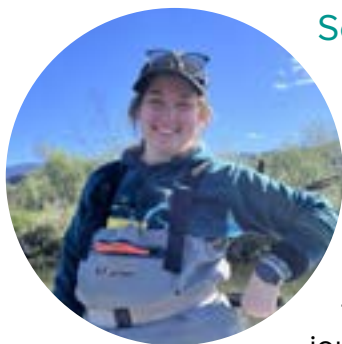


Al Martin HCTF Conservation Scholarship Recipient 2025



Selena Carl

Selena Carl is a Master of Science student in Environmental Science at Thompson Rivers University, working under the supervision of Dr. Brian Heise.

Growing up in the Okanagan Valley, Selena developed a deep connection to salmon through summers spent fishing with her late father. Selena's love for salmon deepened when she witnessed adult Chinook returning to their natal streams, their bodies marked with battle scars from the long journey from the ocean — a powerful reminder of their resilience and strength.

These experiences inspired her to pursue a career in conservation, with the long-term goal of working at the interface of aquatic and terrestrial ecosystems—protecting salmon, coastal predators, and the habitats that sustain them through research, restoration, and enhancement.

Her graduate research focuses on the survival and behaviour of juvenile sub-yearling Okanagan Chinook Salmon (*Oncorhynchus tshawytscha*) in the Okanagan River system. This population, recognized as endangered in Canada, faces threats from habitat loss, invasive species, climate change, and river fragmentation. Understanding the survival and behavior of juvenile salmon is critical for conservation and recovery efforts, as these early life stages are particularly vulnerable.

To investigate these questions, Selena has tagged over 500 juvenile Chinook with acoustic transmitters and used mobile tracking surveys to follow their movements through the river system. By combining acoustic telemetry with spatial and temporal analysis, she is uncovering the migration pathways, habitat preferences, and survival bottlenecks that influence recovery potential. The results will provide key information to guide habitat restoration, inform management decisions, and strengthen conservation strategies for the Okanagan Chinook.

Selena's work is conducted in close collaboration with the Okanagan Nation Alliance and Fisheries and Oceans Canada, ensuring that her research directly supports ongoing restoration, enhancement, and management initiatives. Collaborating with Indigenous partners has been central to Selena's research, guiding both the study design and on-the-ground fieldwork to reflect community values and conservation priorities. Through these partnerships, she strives to generate research that supports salmon recovery while honoring and integrating Indigenous knowledge and stewardship traditions.



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