



Al Martin HCTF Conservation Scholarship Recipient 2025



Torrie Nicholas

Torrie Nicholas is a proud member of the Splatshin First Nations and has been dedicated to salmon conservation since she was 13 years old. Now pursuing a Master of Environmental Science at Thompson Rivers University, she is conducting critical research on the predation of an endangered population of sk'lwist or juvenile Chinook salmon by invasive Smallmouth bass.

Her work focuses on the Canadian section of the s̓q̓awsitkʷ (Okanagan River), the only remaining accessible spawning area for Columbia Basin Chinook salmon in Canada. To do this, Torrie combines stomach content analysis and DNA metabarcoding to investigate the diet of Smallmouth bass to identify predation patterns and pinpoint critical areas where survival is reduced. The juvenile stages of sk'lwist are particularly vulnerable, making it essential to understand the factors affecting their survival to inform effective recovery efforts.

sk'lwist, or Okanagan Chinook salmon, were historically abundant and central to the culture and subsistence of the Syilx Okanagan people; however, they are now critically endangered. Populations have declined dramatically due to a combination of overfishing, habitat destruction from damming and channelization, and the introduction of invasive species. Chinook salmon are a cornerstone of Syilx Okanagan culture, recognized as one of the Four Food Chiefs, and their decline has profound implications for community food security and cultural traditions.

This research is vital to inform management strategies that support the rebuilding of sk'lwist populations. As part of her work, Torrie is contributing to a broader effort to understand the mechanisms that drive juvenile Chinook salmon survival, with the ultimate goal of enhancing survival, improving habitat restoration, and ensuring the long-term sustainability of the species.

For Torrie, this research is personally significant. As an Indigenous woman, the protection of Chinook salmon is a cultural imperative. Through her work, Torrie is committed to advancing salmon conservation efforts that align with both Indigenous cultural values and scientific objectives, ensuring that Chinook salmon remain a vital part of the Syilx people's way of life for generations to come.

