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**Presentation Title: Consequences of Catch-and-Release Angling on the Physiology, Behaviour and Survival of Wild Steelhead Oncorhynchus mykiss in the Bulkley River, British Columbia**

Abstract for the 2018 Pacific Coast Steelhead Management Meeting

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Steelhead, *Onchorynchus mykiss*, is one of the most coveted recreationally targeted salmonids worldwide, and catch-and-release is commonly used as a conservation tool to protect wild stocks. Nevertheless, very little research has looked at how wild steelhead respond to capture and handling. During the 2016 summer run on the Bulkley River, British Columbia, we assessed the physiological stress response and post-release movement patterns of wild steelhead that were angled and then exposed to three air exposure treatments (i.e., 0 s, 10 s, 30 s). We worked with volunteer anglers and guides to capture steelhead and either non-lethally blood sample fish to measure indices of metabolic stress (glucose, lactate, and pH) or outfit fish with a radio telemetry transmitter to assess immediate swimming ability, migration rate, and survival over the following several months leading to spawning. We evaluated the relationships between capture-related (air exposure, fight time, landing method), environmental (temperature), and intrinsic biotic variables (size, sex) and the catch-and-release outcomes listed above. This research coincided with a survey, which examined Bulkley River anglers’ beliefs and attitudes towards evidence-based best practices, perceptions of the relative threat that capture-related variables have on biological fitness, as well as anglers’ willingness to communicate evidence-based angling practices with others. Findings from this work suggest that just 10 s of air exposure can result in observable differences in captured steelhead. Furthermore, it is suggested that short-term (<3 days) catch-and-release angling survival is approximately 95%, and that total pre-spawn survival of caught-and-released fish is approximately 85%. This study is among the first to critically evaluate the factors that influence the outcome of catch-and-release on wild steelhead, and findings will be communicated to anglers based on the threat perceptions identified by the Bulkley River angling community.