**So Just Maybe it Wasn’t the Hatchery Fish**

Some Historical and Ecological Context in which to consider declines from Historic Steelhead Abundance and Potential Changes in Run Timing Patterns.

(With Emphasis on the Hoh and Queets Rivers)

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Recently several papers have examined historical abundance of wild steelhead and other historical documents that are informative on run timing. While agreement on the specifics is not necessarily complete, general consensus is that we did in fact have significantly greater numbers of wild steelhead in the past and they were more abundant in the early portion of the season than they are today.

In the case of the West coast of the Olympic Peninsula, two basins are of particular interest because of the high level of protection they receive from inclusion in Olympic National Park. The Hoh River is a highly glacially influenced river that drains much of Mount Olympus and has approximately 65% of its basin located inside the park. The larger Queets River to the South is also glacially influenced, draining the South side of Mount Olympus and Mount Queets, and has 40% of its basin within the park boundaries.

The objectives of this study were:

1. To better understand the historical context of these rivers relative to other Olympic Peninsula rivers and what insight that might bring to determining the underlying nature of the declines.
2. To investigate various literature and studies specific to these basins to further understand the drivers of the declines.
3. To analyze available hydrologic data and attempt to see how recent hydrologic trends may be impacting wild steelhead stocks, both from productivity and run/spawn timing perspectives.
4. To perform an assessment of other steelhead runs/systems that may be able to inform us of the nature of the mechanisms of the change we see in these two basins.

What we found were unique historical circumstances that set these two drainages apart from most of the other major rivers on the western Olympic Coast. In some ways they had further to fall than all others.

We focused on land use, hydrology and sedimentation as key drivers to change. We discovered that these rivers are being subjected to escalating disturbances, many with long time constants, and that these are likely causal candidates for the changes manifested in wild steelhead stocks of these basins. We also found a regional example of wild winter-run steelhead run time shifting that does not appear to be caused by hatchery fish interaction.