Steelhead Stock Status in British Columbia

Robert Bison

Province of British Columbia

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The status of steelhead in British Columbia varies between northern BC and southern BC. In southern BC, abundance has declined dramatically in late-run summer steelhead populations which migrate to the interior parts of the Fraser River watershed and in winter-run populations which migrate to coastal rivers. Early-run summer steelhead populations, which also migrate to coastal rivers, have declined little in comparison. In the late-run summer populations and coastal winter-run populations, declines have occurred within the last 30-40 years. In coastal winter-runs, typical populations have declined from many-hundreds or low-thousands to tens or low hundreds. Along the east coast of Vancouver Island, declines occurred over a relatively short period between the late-1980's and mid-1990's. More recently, a dramatic decline has occurred on the west coast of Vancouver Island in Gold River which was formerly one of the largest steelhead sport fisheries in the province in terms of catch. In late-run summer steelhead populations that migrate to the interior watersheds of the Fraser River, pre-fishery abundances have declined by about 20-fold, collectively from mid thousands to low hundreds. Fishing mortality has also been reduced in these populations, but some fishing mortality continues as bycatch in salmon fisheries. Conservation units within the late-run summer steelhead group, that have been delineated to date, have been classified as Endangered but have not been formally listed under Canada's endangered species legislation.

The decline of steelhead in southern BC is also evident in the sport catch statistics. Sport catch in southern BC has declined about 6-fold from peaks observed in the mid-1980's. Catch of wild fish has declined about 5-fold whereas catch of hatchery fish has declined by about 9-fold. The decline in catch of hatchery fish coincides with about a 2-fold decline in the number of smolts stocked, along with about a 3-fold decline in the catch hatchery fish relative to the number of smolts stocked.

Many steelhead, anadromous cutthroat and salmon populations in southern BC have declined in status, most notably the stream-type and lake-type populations which are those that produce larger bodied smolts. Evidence is increasing that predation by pinnipeds may be a large factor accounting for much of the steelhead decline in southern BC.

In northern BC, steelhead abundance appears to be much more stable, however the number of fishery independent monitoring sites are fewer than in the south and the duration of monitoring

has been much shorter and more recent. The longest and most consistent monitoring of abundance is in the Skeena watershed. Gillnet test fishing near the mouth of the Skeena River has been ongoing for 63 years from 1958 to the present. Abundance shows no obvious trend over this time period, however abundance measured near the mouth does not account for a declining trend in fishing mortality in salmon fisheries over the past 20 years, fisheries that occur before steelhead reach the test fishing site. This trend in fishing mortality may be obscuring a possible declining trend in Skeena summer-run steelhead since the late 1990's.

Sport fishery statistics also suggest that trends in abundance reaching rivers are more stable in northern BC than in southern BC. Sport effort and catch remains relatively stable in the north. An exception is a decline in the Bella Coola watershed located in the southern portion of the region. Both the summer and winter run populations have been in very low abundance since the early 1990's. Few streams have been stocked with steelhead in northern BC, but one river, the Kitimat River, has been stocked continuously up to 2017. As in the south and over about the same time frame from the 1980's to the present, we see about a 3-fold decline in the catch of hatchery fish relative to the number of smolts stocked. In the transboundary watersheds farther north, the Stikine, Taku and Alsek, steelhead status in these watersheds remains unknown.