

ROCKY REACH HYDRO ELECTRIC PROJECT SUMMARY OF OCTOBER, 1999 FISH INVENTORY SURVEYS

Sampling Sections

Five sampling sections were established:

- 1) Rocky Reach Dam tailrace.
- 2) Lower Rocky Reach reservoir.
- 3) Middle Rocky Reach reservoir.
- 4) Upper Rocky Reach reservoir.
- 5) Wells Dam tailrace.

These sampling sections represent different flow regimes and associated macro-habitat parameters occurring within the Rocky Reach study area.

Sampling Methods and Relative Capture Rates

Five sample methods were used in the first field session with the following capture rates:

- 1) Fyke nets (30%).
- 2) Beach seines (67%).
- 3) Gee minnow traps (3%).
- 4) Angling (0%).
- 5) Snorkel surveys were done, but not as a fish capture method.

Beach seines were selective for young of the year fish and three spined sticklebacks. Fyke nets were least selective, and captured a wide range of age classes and the most species. Fyke nets accounted for virtually every adult and sub-adult fish caught, including two rainbow trout. Snorkel surveys were used only for species identification and counts.

Total Fish Count

The following is a list of the fish counted and their relative contribution to the total:

- 1) Three spined stickleback = 80.9%.
- 2) Northern pike minnow = 7.0%.
- 3) Redside shiner = 7.0%.
- 4) Chisel mouth = 3.5%.
- 5) Large scale sucker = 1.3%.
- 6) Peamouth = 0.1%.

Tench, Bluegill sunfish, prickly sculpin, rainbow trout, walleye, and torrent sculpin each accounted for less than 0.1% of the total count. Total number of fish captured or observed and identified with all methods during the first field session was 19,667.

Salmonid Life History

Two rainbow trout were caught. The first was 300 mm long (12 inches) and was released immediately. The second was 427 mm long (17 inches) and was more thoroughly examined by an RL&L biologist. It was identified as a female of hatchery origin, 3+ years old, with two indices showing post-spawn condition. Both rainbow trout appeared healthy upon release. One juvenile chinook salmon was observed near Rocky Reach Dam forebay. Three spawning chinook salmon and one redd were observed near Wells Dam tailrace. One dead, post-spawn, male chinook salmon was measured and had a fork length of 109 cm (45 inches).