of CPUE over time suggested that the chum salmon run strength in the mainstem Innoko River peaked between July 13 and 23, with diminishing catch rates occurring near the end of July. The mean mideye - fork length was 555 mm for males and 550 mm for females. Chum salmon were captured in Finland Creek (5 individuals) and Scandinavian Creek (2 individuals) on July 29, approximately one kilometer upstream from their respective confluences with the Innoko River. While spawning was not observed in these latter systems, the live fish were in advanced stages of deterioration.

On July 15-16, 88 chum salmon were collected from the mainstem Innoko River and sacrificed for the retrieval of tissue samples for genetic stock identification (GSI) analysis. The tissue samples have been delivered to the Alaska Department of Fish and Game Genetics Laboratory (Anchorage) for analysis.

In addition to chum salmon, four king salmon (*O. tshawytscha*), 13 northern pike (*Esox lucius*), two sheefish (*Stenodus leucichthys*), and one least cisco (*Coregonus sardinella*) were captured by gillnet at the Innoko River site. Several pond smelt (*Hypomesus olidus*) were captured by seine near the Innoko River gillnet site, representing an apparent range extension for this species.

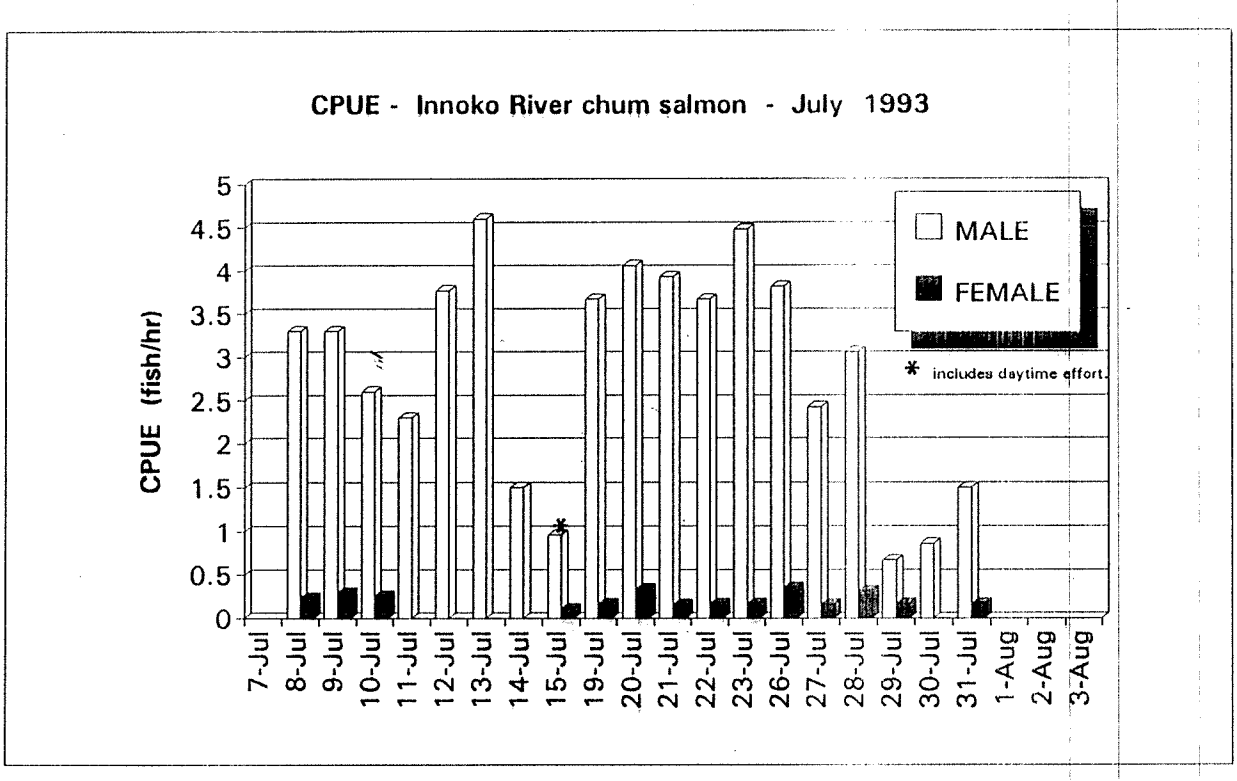
Dishna River.— Gillnet samples were taken in the Dishna River during nine evenings in July, approximately three kilometers upstream from the confluence with the Innoko River. A total of 50.2 hours of sampling effort resulted in 34 male chum salmon and 5 female chum salmon, for an overall mean CPUE of 0.68 fish/hr. While chum salmon were present in the Dishna River throughout the month of July, the small number of observed catch rates precluded reliable detection of increasing or decreasing trends in daily CPUE. The mean mideye - fork length of male chum salmon from the Dishna River was 550 mm. One king salmon and one northern pike were also captured by gillnet at the Dishna River site.

Summary.— The 1993 Arctic-Yukon-Kuskokwim (AYK) chum salmon return was disastrously low. Run strengths were roughly 80% below the 5-year average, and yielded the lowest commercial harvest since 1968. ADF&G biologists estimated 2.5 million chum salmon were missing from the expected AYK return. As a result, the baseline data collected in 1993 on chum salmon run timing and strength in AYK systems, e.g. the Innoko River drainage, may be proportionately biased. As such, the results of this study cannot be interpreted as a true representation of the timing and strength of the "normal" chum salmon run in the Innoko River. However, the capture of over 300 individuals in the mainstem Innoko River during a year of extreme-low returns does suggest that a substantial run of summer chums may exist in the drainage.

In conclusion, further monitoring of the system should be directed towards developing an escapement index within the drainage and identifying potentially declining or threatened stocks.

Figures G.1 and G.2 graphically summarize the CPUE and length frequency data collected on the Innoko and Dishna Rivers.

Figure G.1 Catch per unit effort (CPUE) and length frequency of chum salmon sampled from the Innoko River, July 1993.



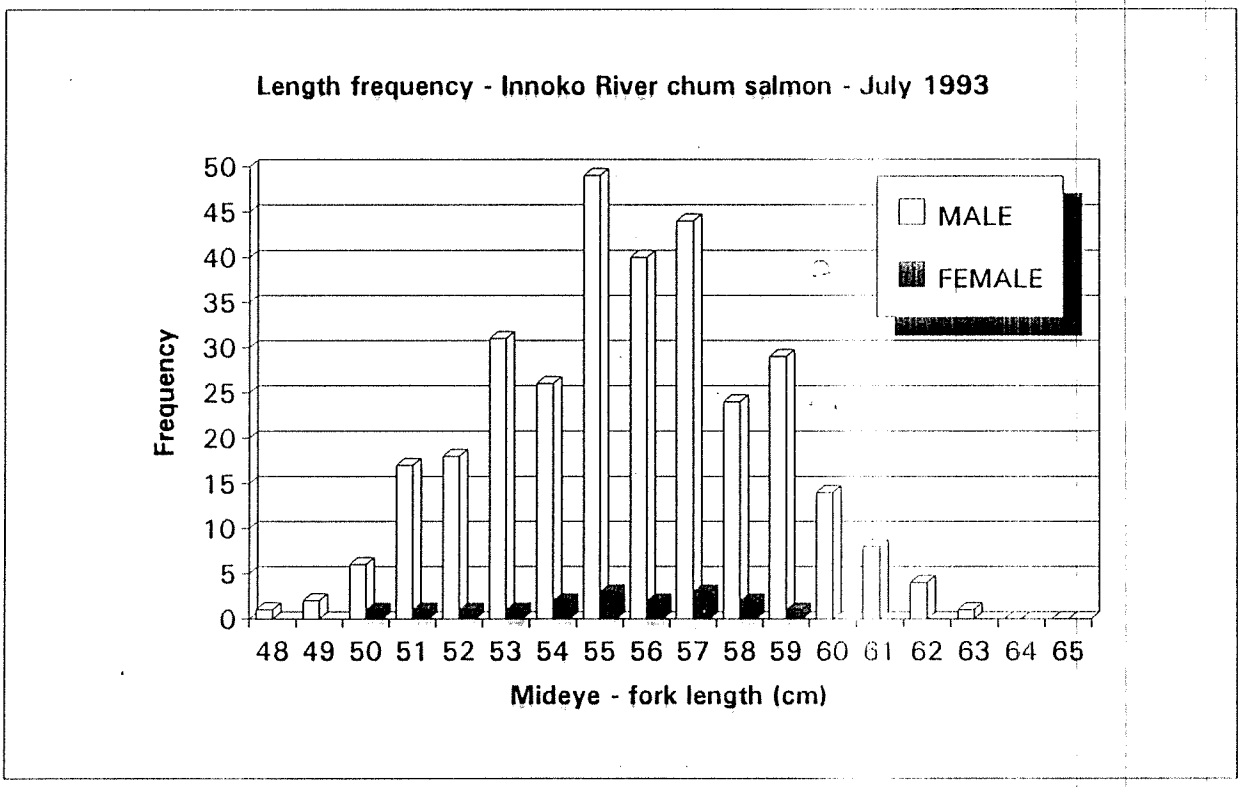


Figure G.2 Catch per unit effort (CPUE) and length frequency of chum salmon sampled from the Dishna River, July 1993.