

from July 1-19 and 73,834 from July 20 to August 28. North Peninsula sockeye catch was 2,151,010. Three Hill section 270,000, Outside Ilnik 635,775, Ilnik Lagoon 14,650 and Strogonof Point 104,480.

The coho catch was 73,000 for the Shumagin Islands. This was due to the fact that the fishermen went on strike.

The North Peninsula sockeye salmon escapement (systems with weir counts plus indexed totals for other systems) was 820,000. Editors Note: This type of escapement data is weak, at best. One only has to look at the escapement into Ilnik Lagoon 82,000 with a catch of 650,000, and see the whole picture. I would ask the department to show the return to spawner ratio's for all North Peninsula river systems as well as fishing districts.

STOCK IDENTIFICATION OF THE NORTH ALASKA PENINSULA BY ADF&G:

In 1988, the Department of Fish and Game conducted a stock identification study in the Northern Alaska Area M Peninsula sockeye salmon fishery, from Harbor Point to Cape Seniavin. The study was to find out if Bristol Bay sockeye were being intercepted in the North Peninsula commercial fisheries. This study was conducted by using scale pattern analysis and the project was conducted by Hal Geiger, statewide salmon biometrician for the Department of Fish and Game. A re-cap of the report follows: Scale pattern analysis was shown to be an effective tool for discriminating between Bristol Bay and North Peninsula stocks in the 2.3 age class in North Peninsula sockeye salmon fisheries in 1988. Evidence was found for interceptions in the Cape Seniavin to Cape Strogonof fishery, with considerable interception after July 5th when fishing was allowed northeast of the Three Hills section. The change in boundary lines is considered the most likely explanation for the increased interception. During first sampling of the fishery, following this northeastern opening, an estimated 66 % of the 2.3 sockeye salmon were bound for Bristol Bay. An estimated 296,000 or 2/3 of the North Peninsula sockeye salmon harvest was fish of Bristol Bay origin in 1988. following fishing northeast of the Three Hills section. There is also strong evidence that Bristol Bay stocks were present in high levels after fishing North of Three Hills section was allowed, beginning on the 5 th of July. In conclusion, from this study, it is clear there were significant interceptions of Bristol Bay bound sockeye salmon in 1988.

It is not clear how the results of this analysis could be used to predict what the rate of interception will be if the fishery is similarly managed in the future. Geiger (1989) using scale pattern analysis estimated that North Peninsula stocks contributed 66%, 55%, 64%, while Bristol Bay (Ugashik stock only) comprised 34%, 45%, 36% of the sockeye salmon catch within the Cape Seniavin to Strogonof Point reach during 5 July-21 July 1987, 1988, 1989, respectively. However, Geiger stated that stock proportions could fluctuate interannually owing to variation in migration patterns, and fleet dynamics.

In 1990, another Alaska Department of Fish and Game report was produced entitled "Origins of

Sockeye Salmon Caught within the Harbor Point to Strogonof Point Reach of the Alaska Peninsula Area M management area, July 8 through July 21, 1990. This technical report No. 91-4007 was conducted by Charles O. Swanton and Robert L. Murphy. A narrative of the report follows: In 1990, a total of 2,415,889 sockeye salmon were commercially harvested in the North Peninsula area, with 880,101 caught in the Harbor Point to Cape Seniavin area and 942,900 fish caught within the Cape Seniavin to Strogonof Point area. Approximately 50% (881,943) of the total catch for both areas combined occurred during July 8 through July 21, with 13% and 81% of this catch occurring within the Harbor Point to Cape Seniavin and Cape Seniavin to Strogonof Point areas, respectively.

Total sockeye catch during July 8-14 was 57,713 fish, with an estimated 6,593 (11.4%) age 2.2 and 48,743 (84.5%) age 2.3. For the age 2.2 component, 4,437 (67.3%) were estimated as Bristol Bay origin, 1,503 (22.8%) Nelson River and 653 (9.9%) Bear River fish (figure 4).

Age 2.3 sockeye salmon were estimated to be 14,184 (29.1%) Bristol Bay fish, 31,448 (64.5%) Nelson River and 3,110 (6.4%) Bear River (figure 5).

Within the period July 15-21, 60,444 sockeye salmon were caught, including an estimated 15,359 (25.4%) age 2.2 and 41,419 (68.5%) age 2.3 fish (table 3). Stock composition estimates for age 2.2 fish were 9,154 (59.6%) Bristol Bay, Nelson River 3,101 (20.2%) and Bear River 3,101

(20.2%) (Fig 4). The age 2.3 catch was 19,011 (45.9%) Bristol Bay, 18,142 (43.8%) Nelson River and 4,26 (10.3%) Bear River fish (Fig.5). In composite, North Peninsula local stocks contributed 58.3% and non-local stocks 41.7% of the sockeye harvest.

Cape Seniavin to Strogonof Point total sockeye catch during July 8-14 was 453,538. Total sockeye catch combining periods and age classes (age 2.2 and 2.3) was 671,501 fish of which an estimated 524,289 were Bristol Bay, 72,750 Nelson River and 74,461 Bear River fish. Local stock contribution for July 8-14 were 19.0% and 18.7% for July 15-21. Bristol Bay stock contributions were 81.0% and 81.3% respectively. See figure.

In the Harbor Point to Strogonof Point areas, a total of 881,943 salmon were harvested during July 8-21, 1990. Stock composition estimates generated for the age 2.2 and 2.3 fish are applicable to all other age classed present, then 10.9 % (96,666) were of Bear River origin, 15.9 % (139,931) were from Nelson River, and 73.2 % (645,457) were Bristol Bay stocks, (see figure 8).

The numbers of Bristol Bay sockeye caught within the Harbor Point and Strogonof Point area are substantially higher than those found by Gieger (1989) within the same areas and time periods. However this could be attributed to the inclusion of Bristol Bay stocks other than Ugashik. From a run strength perspective, the number of Bristol Bay sockeye salmon caught within the North Peninsula area in 1990, may not be deviant but rather reflective of a near record run to Bristol Bay.

Editors note: In conclusion, the data presented from 1970-1997 Annual Management Reports by the Alaska Department of Fish and Game clearly shows an increase in effort for all gear

types in the Area M fisheries. This data also clearly shows the shift of fleet effort from the Port Moller section to the Three Hills and Ilnik sections and the start of a new and expanding intercept fishery on the North Peninsula targeting Bristol Bay bound sockeye salmon.

Editors note: All information in this report came from the "Annual Management Reports" issued by the Alaska Department of Fish and Game. When "editor notes" appears, it is my own personal comments or observations.