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NORTHERN DISTRICT SOCKEYE SALMON STOCK STATUS, 1998

Report for the Alaska Board of Fisheries

by

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INTRODUCTION

The Alaska Board of Fisheries (BOF) at the Statewide Finfish meeting in February 1998 will be reviewing Northern District sockeye salmon escapement goals relative to the abundance of enhanced and wild stocks. The Northern District of Upper Cook Inlet (UCI) includes those waters north of the latitude of Boulder Point at 60 degrees, 46 minutes and 23 seconds (Figure 1).

Counts of spawning sockeye salmon necessary for this evaluation have been collected since the 1920's (King and Davis 1989), by aerial overflights, foot surveys, boat surveys, weirs, or sonar. Because the data gathered for this report comes from a variety of sources, the data may not be all-inclusive (Appendix A.1). The department has attempted to categorize all systems in the Northern District of Cook Inlet where we have documented sockeye salmon spawning, rearing, and migration. Only the Susitna River which has a sonar counter in a tributary, the Yentna River, and Fish Creek which has a weir at the outlet of Big Lake have escapement goals. Goals have not been set for other systems as data are lacking on production potential and no formal programs are in place to monitor escapements in minor systems of UCI.

Sockeye salmon have been documented in 28 streams or rivers in the Northern District that terminate in Cook Inlet (first order streams; Table 1, Figure 2). These first order streams are numbered beginning at the south-west boundary of the Northern District, following the shoreline north around Knik Arm and Turnagain Arm, then south along the eastern shoreline to the south-east boundary of the district. For simplification, these stream numbers are used in all figures and tables whenever appropriate.

Sockeye salmon have also been documented to either migrate through, spawn, or rear in an additional 207 higher order streams or lakes that flow into the above mentioned first order streams (Appendix A.2). Approximately 100 of these streams or lakes are located within the Susitna River drainage, which is thought to contribute approximately 50 percent of all Northern District sockeye salmon escapement. With few exceptions these streams are of glacial origins and many lakes are stained or otherwise occluded making enumeration by means other than sonar very difficult.

The Susitna River and Fish Creek, draining into Knik Arm, are the only two systems in the Northern District which have established escapement goals. These two systems have the most data available on sockeye returns. None of the remaining 26 first order systems have a time series of escapement observations that are comparable through time and of the quality necessary to establish an escapement goal based on adult sockeye salmon spawner/return data.

For purposes of this report, first order systems have been grouped somewhat subjectively into one of seven categories ranking them by the maximum number of expected

spawners. A wide range was established for some of these categories due to the overall lack of total estimates of escapement within specific systems. Of the remaining 26 first order streams, there is one with a typical spawner abundance of less than 50,000, three with a spawner abundance of less than 25,000, nine with less than 10,000, six with less than 1,000 and seven with less than 100 spawning sockeye salmon.

With any data set that requires the use of estimation there is uncertainty. This is particularly true with the present escapement data set for UCI. Escapement counts have been collected for a variety of purposes and, therefore, comparability between years may not be possible or appropriate. Uncertainty in counts can occur because of observer error, timing of surveys, stream life of the species being counted, sporadic counts because of flood events, and error in sonar or weir enumeration techniques. Generally, aerial surveys in UCI have been inadequate to generate a total escapement estimate because of the need for multiple surveys (usually only a single survey has been completed because of cost) and stream life estimates. Sonar and weir counts are generally considered a better index of total abundance while mark/recapture estimates may have bias that tends to overestimate the actual escapement.

Following is a discussion by first order systems of the data set.

SUSITNA RIVER (#6)

The Susitna River watershed is the largest watershed in Northern Cook Inlet (49,210 km^2) draining a major portion of the Mat-Su Valley. The three largest tributaries of the Susitna River are the Yentna, Talkeetna, and Chulitna rivers (Figure 3). Following is a brief history of the development of the Susitna River escapement goal, rationale for changing to the Yentna River goal, a brief characterization of the major features of each segment of the Susitna system, and a cursory evaluation on the escapements to each river segment.

There is a great deal of confusion related to the escapement goal of 200,000 sockeye salmon in the Susitna River and that the department currently estimates total Susitna River escapement by means of a sonar counter in the Yentna River. Side-scanning sonar equipment was first used to count adult salmon in the mainstem of the Susitna River in 1978 just below the confluence with the Yentna River (Figure 3). Concurrently, the Cook Inlet Regional Planning Team made subjective estimates of potential productivity of the Susitna River drainage, and suggested the system should be capable of supporting a total return of 800,000 sockeye salmon. The department, assuming an average return per spawner of 4 to 1 (based on Kenai and Kasilof River data), established an initial ***optimum*** escapement goal of 200,000 sockeye salmon as measured by sonar at Susitna Station. This optimum point goal remained in place until changes in river configuration caused by flooding in 1984 made it impossible to count salmon with sonar at this location. Fortunately, Su-Hydro investigators had used a sonar site on the Yentna River since 1981.

Therefore a five-year database was available to estimate the percentage of the total Susitna River escapement which entered the Yentna River (Table 2). Total Susitna River drainage escapement for the above years was estimated by adding Yentna River sonar counts to Sunshine Station mark-recapture estimates (also from Su-Hydro investigations) for all years except 1981, when the Susitna Station sonar estimate was used. Given these results, the department set a Yentna River escapement goal range of 100,000 to 150,000 sockeye salmon to assure that at least 200,000 sockeye salmon escaped into the Susitna drainage when the Yentna River goal is met or exceeded. This action effectively raised the escapement goal in the Susitna River from a point goal of 200,000, to a range of 200,000 to 300,000 sockeye salmon on average.

Mainstem Susitna

The mainstem section of the Susitna River includes all waters of the Susitna River not including the Yentna, Talkeetna, or Chulitna river drainages. Prior to 1985 the sonar counter was positioned at Susitna Station just below the confluence with the Yentna River. Few sockeye salmon populations originate in the mainstem of the Susitna River, however many important chinook and coho salmon stocks are found in such systems as the Deshka River and Alexander Creek. This section of the river also provides much of the pink and chum salmon spawning habitat. This is a very difficult segment of the Susitna system to enumerate sockeye salmon and, as would be expected, there are not many estimates available. Documented sockeye production is limited to a handful of systems with Alexander Creek, Red Shirt Lake/Role Jo Creek, Trapper and Caswell creeks having the largest populations. The only data within the last ten years is in the Deshka River where a weir was operated in 1995 (1,388 sockeye salmon) and 1996 (428 sockeye salmon) though the weir was removed on July 30, 1996 prior to the end of the sockeye migration. The only stream with a long time series of counts is in the Red Shirt Lake system, where peak aerial counts in the 1980's are generally greater than those in the 1970's (Figure 4). The only counts within the 1990's are a survey in 1992 of 10 sockeye salmon and 216 sockeye salmon seen in 1993 when a partial foot survey was conducted late in the season. Even this partial count from 1993 is encouraging when compared to the counts of the 1970's.

Yentna River Drainage

The Yentna River is the largest producer of sockeye salmon in the Susitna River system (Namtvedt et al. 1978). Beginning with its headwaters in the mountains of the Alaska Range, the Yentna flows southeast to its confluence with the Susitna River, 32 miles upstream from Cook Inlet. Sockeye salmon have been documented in forty three streams and lakes draining into the Yentna River. Major features of this watershed include three tributary rivers, the Skwentna, Talachulitna, and Kahiltna, and numerous creeks and lakes. The most important are Chelatna, Shell, Trinity, Movie, Judd, Hewitt, and Whiskey lakes and the West Fork of the Yentna River.

A department sonar counter is located on each bank of the Yentna River at approximately river mile 4 and is used to monitor salmon escapement. Achieving this goal with alterations in the commercial fishery is very difficult due to the 5-14 day travel time for sockeye salmon between the commercial fishing districts and the Yentna escapement counters. In addition, the mixed stock nature of the UCI fisheries, lack of stock separation data, and differential rates of production between rivers in some years makes meeting this goal the most difficult challenge to UCI salmon fishery managers.

Chelatna Lake which drains into the Yentna River via Lake Creek (Figure 3) is probably the largest sockeye salmon producer in the Susitna drainage, accounting for approximately 50 percent of the Yentna River escapement in 1997. In 1989 Cook Inlet Aquaculture Association (CIAA) began enhancing this system, which is discussed later in this report. Aerial survey estimates of sockeye abundance are sporadic from 1972 until 1990 when CIAA began using annual mark/recapture estimates, followed by the installation of a weir in Lake Creek at the outlet of Chelatna Lake in 1993 (Figure 5). Aerial survey counts in the early 1980's suggest that this system has produced significant runs of sockeye salmon. However, aerial surveys in this system are generally not reliable since most spawning occurs in the glacial waters of the lake and visibility is significantly reduced.

The Skwentna River is a large tributary of the Yentna River flowing east to its confluence with Yentna River above Lake Creek. Sockeye salmon are found in Shell Lake and Shell Creek, a tributary of the Skwentna River (Figure 3). Aerial surveys of sockeye salmon date back to 1961 for Shell Lake and Shell Creek, however, the first quantitative estimates of sockeye salmon began in 1972 (Figure 6). During the 1970's, counts ranged from 0-5,000 sockeye salmon, while during the 1980's counts generally increased with some counts over 5,000. In the 1990's while there are fewer surveys, especially of the lake, counts are comparable with the 1980's or higher. A single aerial survey in 1985 of 45,000 sockeye salmon has been omitted as two other observers immediately repeated it that year yielding far fewer fish. Shell Lake has weir counts of 26 sockeye salmon in 1973 and 4,237 in 1986. A major problem in this system is that sockeye salmon must often traverse up to 25 beaver dams to reach their spawning grounds.

The Hewitt and Whiskey lakes system are just northwest of the town of Skwentna, draining into the Yentna River upstream of the confluence of the Skwentna River (Figure 3). Surveys of this system occurred sporadically from 1962 to 1990 when a weir was operated at Hewitt Creek. In many years, survey counts are combined for both systems. Counts are from both aerial and boat surveys with the exception of the single weir count. Counts are generally low in Hewitt Creek from 0 to 300 sockeye salmon per year (Figure 7). In Hewitt Lake counts ranged from 70 in 1973 to a weir count of 12,943 in 1990, with a peak aerial survey of 9,800 in 1981 for both lakes combined. In Whiskey Lake counts range from 0 to 220 in the 1970's and 300 to 4,300 in the 1980's. In general counts in Whiskey Lake during the 1980's are higher than the 1970's. For the Hewitt and Whiskey lakes system, as

a whole there, is not an apparent decline in any segment of this system in years when surveys are available.

Judd, Trinity, and Movie lakes are located just north of Beluga Lake and drain into the Talachulitna River which drains into the Skwentna River. Counts of sockeye salmon in this group of lakes come from a mixture of survey types including tower counts, aerial surveys with fixed wing planes, and helicopters. Trends with these counts are difficult to interpret due to mixed survey types, poor documentation and combined surveys with the Talachulitna River. Counts from the Talachulitna River system average 15,000 sockeye salmon from 1972 to 1996 with very few counts after 1985 (Figure 8). Most surveys conducted since 1985 are of the tributary lake systems. In Talachulitna Creek counts range from 86 in 1975 to 6,000 in 1984. In 1997 a single survey was conducted about a month prior to sockeye salmon moving into the area and 55 sockeye salmon were observed. In Judd Lake counts range from 600 in 1970 to 18,000 in 1984 (Figure 9). A weir was operated in 1989 and counted 12,792 sockeye salmon. A department aerial surveyor in 1997 counted 5,400 sockeye salmon under poor to fair conditions. Counts in the Trinity and Movie lakes system date back to 1972. Counts in the 1970's ranged from 0 to 350, in the 1980's counts ranged from 150 to 500, and in the 1990's counts range from 350 to 7,000 (Figure 10). Surveys in Trinity Creek were in excess of 8,000 sockeye in 1984, 1985 and in 1996. Surveys in Trinity Lake in 1997 were done under poor conditions with strong winds and no fish were seen. In Movie Lake only 6 years of counts are documented and they range from 30 in 1983 to 1,000 in 1995. Beaver dams are a significant problem to salmon migration in this system. There is no apparent decline of stocks within the Talachulitna River system.

The West Fork of the Yentna River is also an important producer of sockeye salmon in this watershed. Escapement observations within this system are few with counts from 1976 to 1979 being 550, 4,000, 6,000 and 456 sockeye salmon, respectively. In the 1980's counts ranged from 630 in 1983 to 8,200 sockeye salmon in 1985 (Figure 11). The last survey of this system was in 1989, however, until that time there is no apparent problem with this stock.

The Yentna River sonar counter has been in place each year since 1981 with counts ranging from 52,300 in 1988 to 157,900 in 1997 (Figure 12). This is by far the best data set from within the Susitna River drainage for sockeye escapement. The Yentna River sonar counter was first used for management of the commercial fishery in 1986 and the escapement goal was not achieved for the first four years of operation. These four years were also among the four largest sockeye returns to Cook Inlet and coincided with two major oil spills that disrupted fishing patterns dramatically. Since that time, the department has been refining management actions necessary to achieve this goal. During the 1980's escapement into the Yentna River averaged approximately 102,000 sockeye salmon. During the 1990's the average escapement has risen to approximately 119,500 sockeye salmon, very near the midpoint of the escapement goal range.

Talkeetna River Drainage

The Talkeetna River is another major tributary of the Susitna River with its confluence just upstream of the town of Talkeetna (Figure 3). Significant sockeye salmon populations have been documented in Larson, Stephan, Mama Bear, and Papa Bear lakes within this watershed. Surveys in the Mama and Papa Bear lakes system are often reported in combination with Chunilna Creek. These surveys are usually conducted for chinook salmon with sockeye salmon being reported sporadically. From 1976 to 1980 counts ranged from 30 to 300 sockeye salmon, with the exception of 1970 when 7,000 sockeye salmon were reported in Chunilna Creek. In Mama Bear Lake counts between 1976 and 1984 ranged from 30 in 1976 to 1,315 in 1982. Surveys of Stephan Lake include counts of Prairie Creek, a major chinook system in this drainage. Counts within this system appear to have targeted chinook salmon with sockeye salmon being reported secondarily. Surveys date to 1972 with no counts reporting sockeye salmon since 1984. Combined counts within this system range from numerous years with 0 to 1,022 in 1978, with no apparent trend over time. By far the largest producer within the Talkeetna drainage is Larson Lake east of the town of Talkeetna. Aerial surveys of this system date from 1972 to 1983 and range from 19 in 1974 to 5,500 in 1981 (Figure 13). Weir counts are available for 1984 through 1987 of 35,254, 37,874, 32,322, and 16,753 sockeye salmon, respectively. A weir was again established in 1997 and 40,282 sockeye salmon were counted entering Larson Lake. It is difficult to estimate sockeye salmon numbers using aerial surveys in this system. In 1997 a test of weir counts versus aerial and foot survey counts indicated that, at best, 20 percent of the actual escapement was observed (Patrick Shields, ADF&G, Commercial Fisheries Management and Development Division, Personal Communication).

Chulitna River Drainage

The Chulitna River is a tributary of the upper Susitna River, its confluence being just upstream from the town of Talkeetna. Sockeye salmon are found in two lake systems, Swan and Byers lakes, and minor populations in Troublesome Creek. The only counts from Troublesome Creek were in 1972 of 182 and in 1973 of 141 sockeye salmon. Counts in Swan Lake date from 1972 to 1984 and range from 1 in 1980 to 917 in 1978 and often include Slim Creek (Figure 14). In Byers Lake counts range from 50 in 1976 to 1,000 in 1979. There are no recent surveys of this system.

Total Susitna River Sockeye Stock Status

Sockeye salmon stocks in the Susitna River should not be viewed as depressed. Several years ago, extensive efforts were made to measure the amount of available rearing habitat for juvenile sockeye salmon in the Susitna River drainage by computing the euphotic volume of its many nursery lakes. Results suggested that based on euphotic volume alone, the drainage should be capable of producing approximately 1,000,000 adult sockeye salmon annually. However, nearly 400,000 of these fish were attributed to Chelatna Lake, which

more recent studies indicate is much less productive (Kyle et al. 1994). Actual expected adult potential, therefore, is probably closer to 600,000 to 800,000 sockeye salmon annually. The only estimate of total returns to the Susitna River are rough approximations based on age composition. The average total return for this system increases from an average in the 1970's of 364,000 to 715,000 in the 1980's and 793,000 in the 1990's (Figure 15). When viewed as the return by brood year the same increasing trend is evident (Figure 16). Susitna River production in recent years is very near the upper range of total production that is predicted for this system. A study of sockeye fry in the Susitna River drainage found that Judd Lake, in the Yentna drainage, in 1994 had the highest sockeye salmon fry density of any UCI lake measured between 1993-1995 (King and Walker 1997). This report also found indications that, on average, Chelatna and Judd lakes are producing sockeye at levels very near carrying capacity. There is no evidence to suggest that the 100,000 to 150,000 sockeye salmon escapement goal for Yentna River is improper. Recent escapement levels appear to have been largely successful in fully optimizing adult returns to the system.

FISH CREEK (#8)

Fish Creek is the outlet stream for the Big Lake system located in the Matanuska-Susitna Valley. The creek is 23 km long emptying into the north-west shore of Knik Arm (Figure 2). The Big Lake system has historically been one of the major sockeye salmon producing systems in Cook Inlet. Big Lake itself is one of the most popular recreational lakes in the area with over 930 lake-front lots in private development. The main tributaries of the Big Lake system are Meadow Creek, Mirror Lake, and Flat Lake. Escapements enumerated with a weir on Fish Creek date to 1936 with the exception of 1942-1945 when the weir was not operated. During the period 1936 to 1964 weir counts averaged 84,000 and were generally in excess of the present escapement goal which was established in 1982 at 50,000 sockeye salmon. Beginning in 1965 escapements declined to levels well below the current escapement goal and in 1975 enhancement of the system was initiated. The first hatchery produced fingerlings were released into Big Lake in 1977 with the first adult returns counted in 1979 (Chlupach and Kyle 1990). The number of fingerlings released has averaged over eight million from 1976 to 1989. Currently, five million fry are permitted for release. Since 1982 the escapement into Fish Creek has been at or above the escapement goal of 50,000 every year except 1986 when 29,800 sockeye were counted (Figure17).

FIRST ORDER STREAMS WITH MORE THAN 50,000 SPAWNERS

McArthur River (#1)

The McArthur River is located on the west side of Cook Inlet draining into Trading Bay (Figure 2). Like most streams in Cook Inlet, it is of glacial origins with some clear water tributaries. Within the McArthur River system there are five tributaries with 24 streams or lakes where sockeye salmon have been documented by ADF&G, 21 being used for spawning . The typical spawner abundance in this system is estimated to be in the less than 50,000 sockeye salmon category. The majority of the sockeye within this system originate in the Chakachatna River system which drains out of Chakachamna and Kenibuna lakes. Approximately half of the sockeye within the Chakachatna River originate within the Chilligan River. Surveys of the Chakachatna River system are very limited except within the Chilligan River. Of the remaining tributaries surveyed, most have from one to four years of data with no apparent trend in sockeye salmon abundance. In the Chilligan River surveys prior to 1952 estimated the peak count to be 2,000 sockeye salmon. Surveys from 1981 to 1989 range from 4,900 in 1989 to 20,000 in 1985 (Figure 18). In 1997 a count of 15,600 sockeye salmon was made in the Chilligan River.

FIRST ORDER STREAMS WITH LESS THAN 25,000 SPAWNERS

Eklutna River (#13)

The Eklutna River is the outlet for Eklutna Lake north of Anchorage and drains into Knik Arm along the eastern shore (Figure 2). Prior to construction of a dam on this system, it was apparently a significant sockeye producer. Currently there are no wild sockeye salmon within this system, all sockeye salmon are of hatchery origin returning to the Eklutna Hatchery operated by CIAA. The sockeye production at this facility was initiated in 1992 with an annual production of one million sockeye smolt and 50,000 coho salmon smolt. All returning adults are harvested for cost recovery at the tailrace. No alterations are made in the commercial fishery to insure any level of cost recovery. The total return to this system harvested for cost recovery was 1,782 sockeye salmon in 1995, 1,126 sockeye salmon in 1996, and 7,260 sockeye salmon in 1997.

Beluga River (#5)

The Beluga River is located on the west side of Cook Inlet just south of the Susitna River (Figure 2). Most of the sockeye salmon within this system are found in Coal Lake, Coal Creek, or in the West Fork Coal Creek. Surveys of Coal Creek date from 1972 and range from no sockeye salmon observed in many years to 2,313 in 1978. The survey from 1997 was 500 sockeye salmon. In Coal Creek Lake counts range from 1,700 in 1972 to zero in

1973-1976 and 1979. In the 1980's most of the surveys are in the 100-500 range with a low of 41 in 1984 and a high of 1,100 in 1981. In 1997 the survey of this lake was 325 sockeye salmon. The West Fork of Coal Creek is the largest documented producer in this system. Surveys from this creek date from 1975 and range from zero sockeye salmon in 1975 to 12,850 in 1989 (Figure 19). In 1997 a single survey counted 7,500 sockeye salmon, the fourth highest on record.

Cottonwood Creek (#9)

Cottonwood Creek drains into Knik Arm along the north west shore, just north of Fish Creek. Cottonwood Creek drains from Wasilla and Cottonwood lakes, which are the only known spawning areas within this system (Figure 2). Pre-statehood surveys document peak counts of 8,000 to 10,000 sockeye salmon in 1936 and a weir count in 1956 of 3,858 sockeye salmon. From 1970 to 1980 Cottonwood Creek was surveyed for only two years with counts of 253 sockeye salmon in 1971 and 1,199 in 1972 (Figure 20). In contrast, the three years when weirs were in place (1981, 1982, and 1997), sockeye salmon escapement was estimated to be 25,180, 18,358, and 8,224, respectively. A study by the Habitat Division of ADF&G is currently under way to document any possible changes to habitat within this system; results are not available at this time.

FIRST ORDER STREAMS WITH LESS THAN 10,000 SPAWNERS

Threemile Creek (#4)

Threemile Creek is located on the west side of Cook Inlet south of Beluga Lake (Figure 2). This system is relatively small and the lake is stained making for very poor survey conditions. Peak survey counts are available for six years from 1980 to 1996. The highest survey is from July 23, 1984 when 20,000 sockeye were counted. This survey was repeated eight and 10 days later with only 850 sockeye salmon being counted. The accuracy of the July 23 survey is doubtful given the repeated surveys and is, therefore, not used in this report. The remaining surveys from this system range from zero in 1980 to 6,000 in 1995 (Figure 21). In 1997 a partial foot survey at the lake outlet (1.5 miles) yielded a count of only six sockeye salmon (this survey was done incidental to the collection of genetic samples and, therefore, is not considered a valid escapement survey).

Little Susitna River (#7)

The Little Susitna River is located on the west side of Cook Inlet between Knik Arm and the Susitna River (Figure 2). Sockeye salmon have been documented spawning in the mainstem and in the Nancy Lake system. Most of the sockeye production is from Nancy Lake. The Little Susitna River system has sporadic sockeye counts dating from 1972

(Figure 22). Sockeye counts from the mainstem include weir counts for six years with two of those years being partial counts (1986-1987). In 1996 the weir was moved upstream of Nancy Lake Creek and the sockeye salmon counts declined accordingly.

Matanuska River (#11)

The Matanuska River is glacially occluded and is located at the northern end of Knik Arm (Figure 2). The Matanuska River system has seven streams or lakes with documented spawning, however, quantitative estimates of the number of spawners are very sparse. Estimates of the total number of sockeye salmon likely to spawn in this river are from 2,000 to 7,000 (Larry Bartlett, ADF&G, Sport Fish Division, Personal Communication). Within this system only Moose Creek was surveyed from 1970 to 1976 with counts of between 6 and 120 sockeye salmon. The Department also has undocumented observations from Yellow Creek of 1,000 to 1,500 sockeye salmon annually (Larry Bartlett, ADF&G, Sport Fish Division, Personal Communication).

Knik River (#12)

The Knik River is located east of the Matanuska River at the north end of Knik Arm (Figure 2). The river is glacially occluded running west from Lake George and the Knik Glacier to very near the town of Palmer. Major features of this system important to sockeye salmon are the Knik River, Bodenburg Creek, and Jim Creek. There are no quantitative estimates from the Knik River. Jim Creek drains into the Knik River on the north shore about two miles east of the Old Glenn Highway crossing. The Jim Creek drainage has weir counts for 1993 of 3,472 and for 1994 of 5,197 sockeye salmon. Bodenburg Creek is a spring-fed, clear water creek that drains into the Knik River on the north shore at the Old Glenn Highway crossing. The creek runs along the Old Glenn Highway to Palmer. During construction of the highway, this creek was channelized along much of its watercourse to form what would generally be termed a drainage ditch (Figure 23). There are several culverts and road or driveway crossings across the creek that may or may not impede migration. In Bodenburg Creek foot surveys are available from 1968 to 1997 with the exception of 1984. The counts from 1968 to 1979 range from 83 to 541, from 1980 to 1989 counts range from 77 to 722, and during the 1990's counts range from 66 to 220 (Figure 24). A crude analysis of these data by decade reveals an average of 239 sockeye salmon for the 1970's, 280 sockeye salmon for the 1980's, and 157 sockeye salmon for the 1990's. It appears that the average return during the 1970's and 1980's was increased partly due to two to three years of very large returns that have not materialized in the 1990's, resulting in an apparent loss of approximately 100 sockeye salmon beginning in the mid to late 1980's. During this time period this area has experienced a great deal of growth in population and many changes have occurred in Knik Arm and Bodenburg Creek which have probably degraded habitat to some extent. In addition, the BOF created the Fish Creek terminal fishery beginning in the 1987 fishing season. Harvests in this fishery have averaged 25,000 sockeye salmon (Table 3).

It is not known what percentage of this harvest is of Fish Creek origin as other Knik Arm stocks are likely harvested in this fishery to some extent. In 1986 the FRED Division of ADF&G put in several fish passes in this creek to aid fish migration through some driveway or road culverts which were improperly installed. These projects would allow fish passage above the area that the index counts cover. FRED Division, due to budget reductions, was never able to assess these improvements; however, if fish are moving from the index area to an area upstream that is not counted, the counts may be biased low.

Sixmile Creek (#15)

Sixmile Creek is located north of Anchorage and drains into Knik Arm along the eastern shore (Figure 2). Prior to 1954 this was a pink, chum, and coho salmon producing stream with no sockeye production. In 1954 a dam was built creating a small lake. Since that time sockeye salmon have populated this system, probably as a result of natural straying, and pink, chum, and coho production has probably declined. The earliest count of sockeye salmon into this system is from an aerial survey in 1980 of 300 sockeye salmon. In 1988 a weir was installed and since that time counts have ranged from 711 to 5,021, averaging 2,300 sockeye salmon (Figure 25).

Portage Creek (#21)

Portage Creek is located at the eastern end of Turnagain Arm (Figure 2). The creek is glacially occluded, draining from Portage Lake which is formed at the base of Portage Glacier. Sockeye salmon have been documented in seven streams or lakes within this system. An undated peak estimate of 500 sockeye salmon for Portage Creek was made sometime after statehood by ADF&G and is the only such estimate for the entire creek. Surveys conducted by the USFS from 1993 to 1997 on Upper and Lower Railroad Sloughs range from 500 to slightly over 900. Counts in Bear Valley, a tributary to Portage Lake range from 108 in 1993 to 260 in 1997. Williwaw Creek was surveyed during the 1970s with counts ranging from 48 in 1974 to 441 in 1977. No surveys were recorded in the 1980s though since 1990 counts in Williwaw Creek have ranged from 180 in 1997 to 552 in 1995.

Chickaloon River (#26)

The Chickaloon River is located on the southern shore of Turnagain Arm due south of Anchorage (Figure 2). This river is slow flowing and laden with mud and silt making aerial survey estimation of escapement very difficult. Major features of this watershed include Swan Lake and Mystery Creek. Chickaloon River sockeye salmon are an early run stock with most fish entering the river prior to the start of the commercial fishery. Surveys in this river system are few. The maximum count, reported before statehood, was in 1947 when 20,000 sockeye salmon were reported. The only other aerial surveys

available are from 1976 when 1,543 were reported and 1983 when 1,000 sockeye salmon were reported. The USFWS conducted a study in 1984 and 1985 to estimate the total number of all seven anadromous species spawning in this system and estimated 4,000 to 6,000 sockeye salmon in both years of the study. They used an "area under the curve" methodology from several index sites in the Chickaloon River drainage, however, this report is still in preparation. Peak counts in the index areas were in the range of 473 for 1984 and 485 for 1985.

Swanson River (#27)

Swanson River is located just north of the district boundary separating the Northern and Central Districts on the eastern shore of Cook Inlet (Figure 2). This system is primarily a coho salmon producing system with some sockeye production. Migrating sockeye salmon have been seen in many areas of this system, however no spawning areas are known. From anecdotal information, the gravel pad placed below the oil field road bridge is now a significant spawning area with several hundred sockeye salmon being seen spawning there each year. The only counts of sockeye salmon are from 1954 when a weir count of zero sockeye salmon was reported and 1988 when a weir count of 1,542 sockeye salmon was reported.

Bishop Creek (#28)

Bishop Creek is located due south of Swanson River (Figure 2). Within this system there are several small unnamed tributaries where sockeye migration is documented. Most sockeye production is from an unnamed lake on Bishop Creek and Daniels Lake. There are two weir counts from this system, 9,267 sockeye salmon in 1954 and 23,000 sockeye salmon in 1958. Peak aerial surveys of the unnamed lake on Bishop Creek include 170 in 1981, and 5,000 in 1984 and 1985. The last survey in 1986 counted 51 sockeye salmon due to poor visibility. Peak surveys of Daniels Lake are 2,000 in 1981, 7,800 in 1984, 6,988 in 1985, and 4,536 in 1986.

FIRST ORDER STREAMS WITH LESS THAN 1,000 SPAWNERS

Chuitna River (#3)

The Chuitna River is located on the west side of Cook Inlet slightly north of the village of Tyonek (Figure 2). Though this river has been surveyed for chinook salmon annually since 1973, sockeye salmon were counted only once in 1983 when 400 were observed. In 1958 a survey was conducted on this creek with four other salmon species estimated, however, no mention of sockeye salmon. In 1984 sockeye salmon are listed as present with no quantitative estimate.

Eagle River (#14)

Eagle River is located just north of Anchorage draining into Knik Arm on the eastern shore (Figure 2) . This river is glacially occluded with a lake formed just below the glacier. Sockeye rearing is documented in this system but ends several miles below the lake. No spawning is documented, however, it is believed to occur in the sloughs by the Eagle River State Park Visitor's Center. Surveys were conducted in the 1970's and again in 1991 but no sockeye salmon were observed. A rough approximation of the typical number of spawners is in the 100 to 500 sockeye range (Barry Stratton, ADF&G, Sport Fish Division, Personnel Communication).

Campbell Creek (#17)

Campbell Creek is located in Anchorage and drains into Cook Inlet on the north shore of Turnagain Arm (Figure 2). In the late 1950's, prior to statehood, a dam was constructed to create Campbell Lake. The only documented sockeye spawning occurs in the North Fork of Campbell Creek. Though this system has been surveyed since 1961, sockeye salmon were first documented in 1986. Foot surveys have been conducted each year since 1986 except 1988 when no survey was done and 1993 and 1994 for which weir counts are available. Counts range from 877 in 1986 to 51 in 1989 (Figure 26). The count in 1997 was 294 sockeye salmon.

Twentymile River (# 20)

Twentymile River is located at the east end of Turnagain Arm (Figure 2). This river is glacially occluded with four documented spawning areas. This is a very difficult river to survey and thus no survey of the system has been completed. The USFS has conducted repeated surveys from 1993 to 1995 along index sites within the river with counts of zero in 1993, 155 in 1994, and 110 in 1995. No sockeye salmon were observed during single surveys conducted late in 1992 and early in 1996.

Explorer Creek (#22)

Explorer Creek is located at the east end of Turnagain Arm just south of Portage River (Figure 2). This creek flows from Portage Creek into Turnagain Arm at the confluence with the Placer River. It has been given its own distinct stream number by Habitat Division of ADF&G and is, therefore, treated as a distinct river in this report. The name is unofficial and was assigned by the USFS. Surveys of this creek date between 1992 and 1997. These surveys were conducted by the USFS for unknown reasons and are probably foot surveys of index sites only and not total estimates. Peak survey counts for the above years range from 20 in 1994 to over 300 in 1995. It is doubtful if these estimates are of the same index areas and therefore may not be comparable.

Placer River (#23)

The Placer River is located at the east end of Turnagain Arm just south of Portage River (Figure 2). The Placer River is glacially occluded with a small lake, Luebner Lake, in which sockeye salmon are documented to rear and spawn. Luebner Lake is muddy and located right next to a hillside making aerial survey observation very difficult. There are no quantitative estimates for this system however subjective estimates would put it in the less than 1,000-spawner range.

FIRST ORDER STREAMS WITH LESS THAN 100 SPAWNERS

Wasilla Creek (#10)

Wasilla Creek is located at the northern end of Knik Arm between Cottonwood Creek and the Matanuska River (Figure 2). This is a small creek, which is probably marginal habitat for sockeye salmon. Counts on Wasilla Creek date to 1970 and are done primarily to document coho salmon escapements. The only count documenting sockeye salmon was a weir count in 1997 of five sockeye salmon.

Ship Creek (#16)

Ship Creek is located in Anchorage draining into Knik Arm on the eastern shore directly across from Point McKenzie (Figure 2). Prior to construction of a dam on this system, Ship Creek is believed to have been a substantial producer of sockeye salmon. Counts for this system date back to 1960 though in only eight years were sockeye salmon observed. No counts were conducted in 1983 through 1985 or in 1989. Non-zero counts of sockeye in this system range from one in 1981 to 13 in 1994 and 1996.

Bird Creek (#18)

Bird Creek is a glacially occluded creek located on the north shore of Turnagain Arm (Figure 2). This is a small short creek lacking lakes or ponds or other sockeye habitat. Sockeye salmon have not been observed to spawn or rear within this creek. The only documentation of sockeye salmon within this creek is a count of two sockeye salmon from a foot survey in 1995. Sport fishing harvests of sockeye salmon reported from Bird Creek date to 1984 and range from approximately 100 to 250. These fish are believed to be destined for other Turnagain Arm streams and not Bird Creek (Barry Stratton, ADF&G, Sport Fish Division, Personnel Communication).

Glacier Creek (#19)

Glacier Creek, also known as California Creek, is located on the north shore of Turnagain Arm near the town of Girdwood (Figure 2). This is a glacially occluded creek with little if any sockeye spawning or rearing habitat. In 1976 and 1978 a single sockeye salmon was observed within this creek. No other sightings are reported.

Sixmile Creek (#24)

Sixmile Creek is located on the southern shore of Turnagain Arm, east of the town of Hope (Figure 2). This is a relatively long, narrow creek with a fairly steep gradient with many rapids. This creek is probably marginal habitat for sockeye salmon. Only two survey counts are available for this system with sockeye salmon being documented, two sockeye in 1989 and five in 1990.

Big Indian Creek (#25)

Big Indian Creek is located on the southern shore of Turnagain Arm due south of Anchorage and slightly east of the Chickaloon River (Figure 2). This is a small short creek draining from the eastern side of the Kenai Mountains. Big Indian Creek drainage lacks any lakes or ponds and probably provides little sockeye habitat. Adult sockeye salmon have not been observed within this system. The only documentation of sockeye salmon is a qualitative assessment made by the Habitat Division of ADF&G of rearing fry within this system.

Middle River (#2)

The Middle River is located just north of the McArthur River on the west shore of Cook Inlet in Trading Bay (Figure 2). While this river is given a separate stream number by Habitat Division of ADF&G, it is really a channel of the McArthur River and has no known spawning or rearing habitat separate from the McArthur River.

HATCHERY PRODUCTION OF SOCKEYE SALMON

Fish Creek

There are three systems in the Northern District of Upper Cook Inlet where hatchery practices have been utilized. The largest of the three, Fish Creek, is a long running program in the Big Lake drainage. This hatchery program was initiated by ADF&G FRED Division in 1975. Eggs were originally collected from sockeye salmon within the

Big Lake drainage and reared at the Big Lake hatchery. The number of fingerlings released averaged over eight million from 1976 to 1989. In 1993 the Big Lake hatchery was closed and CIAA took over this project rearing the fish at its Eklutna Hatchery. Currently five million fry are permitted for release. The Department has no accurate estimate of the total returns for the Fish Creek system. The only estimate that is available is from using relative river age composition analysis. Estimates derived using this methodology should be viewed as rough approximations of the return and are likely biased high. The average total return from 1980-1997 allocated to this system is 233,000. Contributions of wild versus hatchery sockeye salmon in this system is also unknown. The only estimate available, again viewed as a rough approximation, is an average of 61 percent hatchery contribution from 1975 to 1989 (Chlupach and Kyle, 1990). Using these admittedly crude approximations, on average, 142,000 fish of hatchery origin should return to this system. An otolith marking program will be in place for the 1999 stocking.

Eklutna River

A second enhancement project occurs in a Knik Arm system, the Eklutna River. Enhancement of this river was initiated in 1992 when the Eklutna Hatchery, operated by CIAA, was converted to a sockeye salmon facility. Brood stock for this project was collected in the Big Lake system. The current program calls for annual production of one million sockeye smolts and 50,000 coho smolts. Hatchery cost recovery is permitted in the hatchery tailrace and all sockeye salmon are harvested. Sockeye salmon are not marked. No alteration of existing common property fisheries are made to assure any level of cost recovery and likewise no additional fishing time is warranted to harvest fish from this return. The first cost recovery harvest from this project was 1,782 sockeye salmon in 1995, followed by 1,126 sockeye salmon in 1996 and 7,260 sockeye salmon in 1997. Allowing for those fish harvested in the common property fishery (70%), the total return is in the 10,000 to 20,000 fish range.

Chelatna Lake

The remaining enhancement effort in the Northern District is in Chelatna Lake in the Yentna River drainage of the Susitna River system. Enhancement efforts in this system were begun in 1990 and were terminated in 1996. Initially, the intent of this program by CIAA was to enhance this system to produce the number of adult sockeye salmon (400,000) that was predicted by the euphotic volume study by Tarbox and Kyle (1989). From 1989 to 1995 an average of 1.065 million fry were stocked into the lake each year (Table 4). Further studies of the productivity of this lake reduced substantially the number of adults that this system could support and the project was terminated by CIAA in 1996. Estimated returns of hatchery reared adults returning to this system have ranged from 2,330 to 5,100 in years when an estimate is available (Table 5, Figure 27). In all three years for which an estimate of enhanced stocks exists, the wild stock

component of the Yentna River escapement is well above the lower end of the escapement goal range. Enhancement of Chelatna Lake is not considered a serious threat to wild stock management as the contribution of hatchery fish is very small and the project has been terminated.

Effect of Hatchery Production to Management of the Commercial Fishery

Total production of sockeye in the Northern District is estimated to average 1.2 million annually. Hatchery production is estimated to average less than 15 percent of the total. At this level of production, hatchery fish are not likely to influence management decisions. The two primary harvesters of Northern District sockeye salmon are the Northern District set gillnet fishery and the Central District drift gillnet fishery. With the exception of 1989 and the Knik Arm fishery, additional fishing time in these fisheries has not been warranted for the harvest of Northern District bound sockeye salmon. Since 1990 the converse has generally occurred with both of these fisheries being restricted to some extent to lower the exploitation rate on these stocks.

The only substantial hatchery program in this area is the Fish Creek project (Big Lake). Sockeye salmon returning to Fish Creek are smaller in size than sockeye salmon of other stocks and are probably not harvested at the same level as the remaining fish in the Inlet. The BOF in 1986 created a terminal fishery in the Fish Creek area to harvest sockeye salmon surplus to escapement needs. Harvests in this fishery have averaged 25,000 sockeye salmon (Table 3). In 1992 this fishery was altered to lower the coho harvest in Knik Arm which also resulted in lower commercial harvests of sockeye salmon. Personal use dip netting opportunities have increased in Fish Creek and have been fairly successful in harvesting the remaining surplus sockeye salmon. The escapement goal set at Fish Creek is predicated on the return of hatchery salmon. With the exception of 1986 the escapement goal in Fish Creek has been met or exceeded every year since the goal was set in 1982 (Figure 16).

CONCLUSION

After a through review of all known quantitative escapement estimates of sockeye salmon within the Northern District of Cook Inlet, we find no conservation concerns due to over harvest of stocks. This report identifies many "small" stocks of sockeye salmon in the Northern District of UCI but has not identified any stocks that should be considered weak. The three small-scale enhancement projects pose no danger to wild stocks due to the relative size of the return of wild stocks. For those systems with recent escapement information, most exhibit some improvement in escapements over those experienced prior to the 1980's. The establishment of the Yentna River and Fish Creek sockeye salmon escapement goals appears to provide adequate protection and numbers of spawners to the numerous smaller unmonitored systems in Northern Cook Inlet.

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Table 1. Documented first order sockeye producing streams from the Anadromus Stream Catalog in the Northern District of Upper Cook Inlet, with an estimate of possible production.

#	Name	A.W.C. Number	Typical Spawner Abundance
1	McArthur River	247-10-10080	Less than 50,000
2	Middle River	247-10-10070	Less than 100
3	Chuitna River	247-20-10010	Less than 1,000
4	Threemile Creek	247-20-10002	Less than 10,000
5	Beluga River	247-30-10090	Less than 25,000
6	Susitna River	247-41-10200	102,000 to 338,000*
7	Little Susitna River	247-41-10100	Less than 10,000
8	Fish Creek	247-50-10330	50,000**
9	Cottonwood Creek	247-50-10300	Less than 25,000
10	Wasilla Creek	247-50-10270	Less than 100
11	Matanuska River	247-50-10220	Less than 10,000
12	Knik River	247-50-10200	Less than 10,000
13	Eklutna River	247-50-10175	Hatchery Production only (25,000)
14	Eagle River	247-50-10110	Less than 1,000
15	Sixmile Creek	247-50-10090	Less than 10,000
16	Ship Creek	247-50-10060	Less than 100
17	Campbell Creek	247-60-10340	Less than 1,000
18	Bird Creek	247-60-10280	Less than 100
19	Glacier Creek	247-60-10250	Less than 100
20	Twentymile River	247-60-10230	Less than 1,000
21	Portage Creek	247-60-10220	Less than 10,000
22	Explorer Creek	247-60-10210	Less than 1,000
23	Placer River	247-60-10200	Less than 1,000
24	Sixmile Creek	247-60-10170	Less than 100
25	Big Indian Creek	247-60-10120	Less than 100
26	Chickaloon River	247-60-10110	Less than 10,000
27	Swanson River	247-90-10020	Less than 10,000
28	Bishop Creek	247-90-10030	Less than 10,000

* The Susitna River escapement is monitored by sonar in the Yentna River and has an escapement goal of 100,000 to 150,000 sockeye in the Yentna River.

** Fish Creek is an enhanced run with an escapement goal of 50,000.

Table 2. Percent of Susitna River Sonar counted at the Yentna River Sonar, 1981 to 1985.

Year	Yentna Sonar	Susitna Sonar	Percent Yentna
1981	139,401	340,232	41.0%
1982	113,847	265,332	42.9%
1983	104,414	175,936	59.3%
1984	149,375	279,446	53.5%
1985	107,124	227,924	47.0%
		Average	48.7%

Table 3. Salmon harvest in the Fish Creek terminal fishery in Knik Arm, 1987 to 1997.

Year	Chinook	Sockeye	Coho	Pink	Chum	Total
87		24,090	2,043	264	403	26,800
88	9	38,251	11,604	591	2,733	53,188
89	4	47,925	6,075	545	4,979	59,528
90	4	23,450	5,708	696	5,308	35,166
91		10,459	1,630	21	961	13,071
92		10,748	1,817	573	1,289	14,427
93		47,751	831	29	990	49,601
94		7,528	809	141	357	8,835
95	5	19,477	1,999	72	1,018	22,571
96		35,245	1,802	25	448	37,520
97	1	13,791	85	1	31	13,909
Average	2	25,338	3,128	269	1,683	30,420

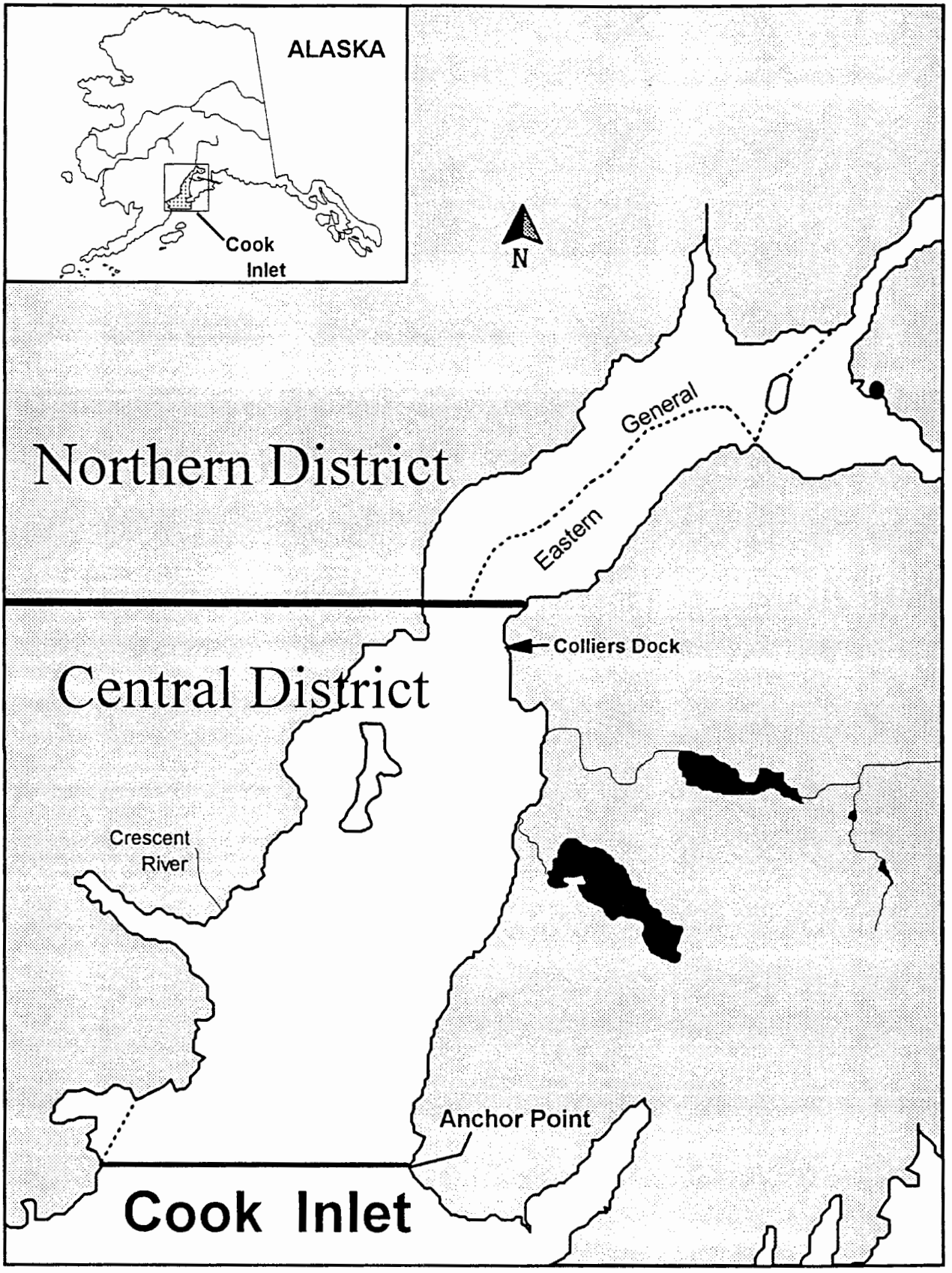
Table 4. Sockeye salmon stocked in Chelatna Lake by CIAA, 1990-1996.

BroodYear	Fry Stocked	No. Tagged	Otolith Mark
1989	503,000	40,720	No
1990	635,000	19,190	Yes - 100%
1991	1,138,000		Yes - 100%
1992	1,003,000		Yes - 100%
1993	1,330,333		Yes - 100%
1994	1,806,000		Yes - 100%
1995	1,042,000		Yes - 100%
Average	1,065,333		

Table 5. Sockeye counts at Yentna sonar and Chelatna Lake weir with an estimate of hatchery contribution, 1993-1997

Year	Yentna Sonar	Chelatna Weir	Hatchery Contribution	Wild Chelatna Contribution
1993	141,694	20,235	2,330	17,905
1994	128,032	28,303	2,500	25,803
1995	121,479	20,104	Unknown	
1996	90,660	28,000	Unknown	
1997	157,899	84,899	5,100	79,799

Figure 1. Upper Cook Inlet Salmon Districts



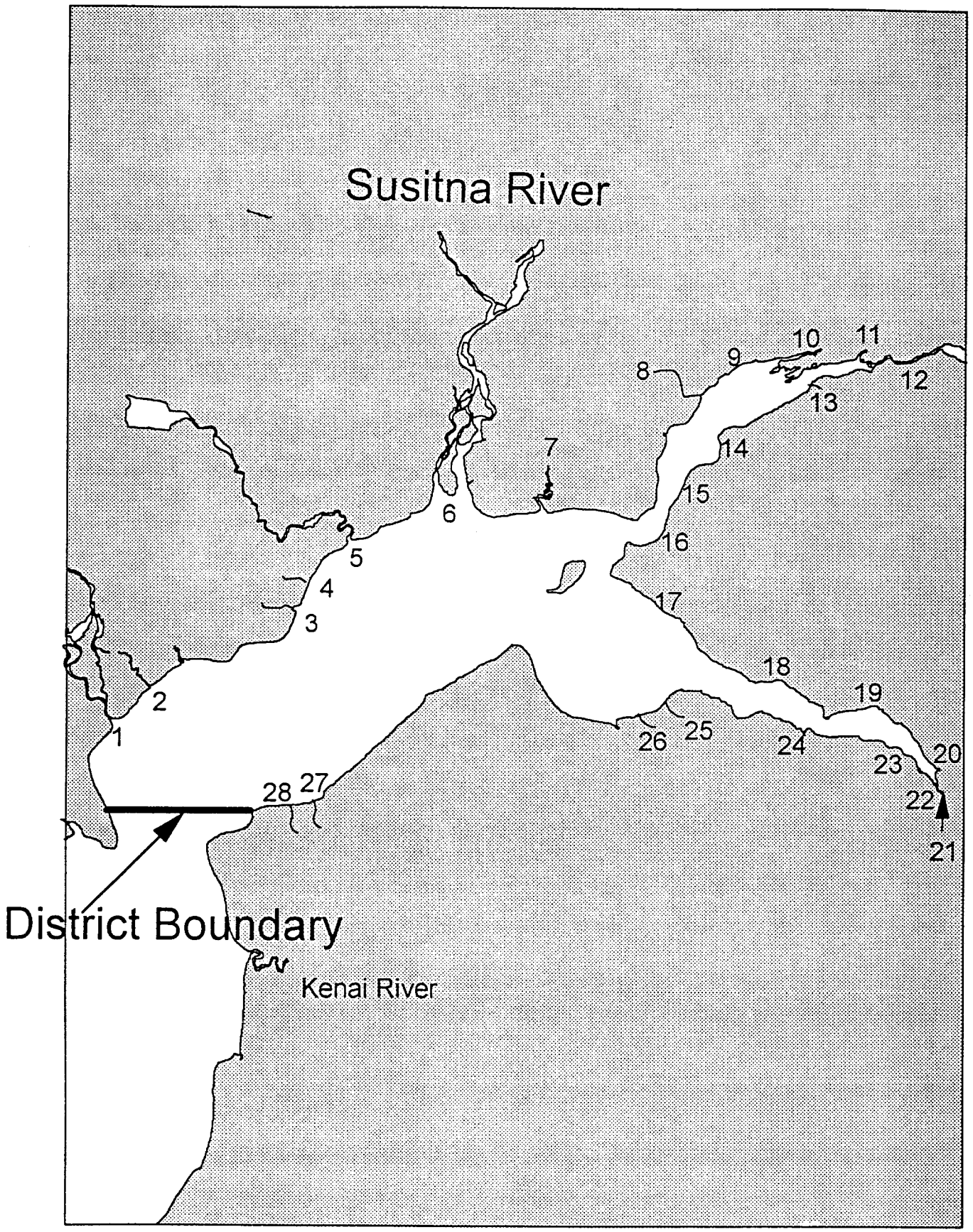


Figure 2. Approximate location of sockeye producing river systems in the Northern District, Upper Cook Inlet.

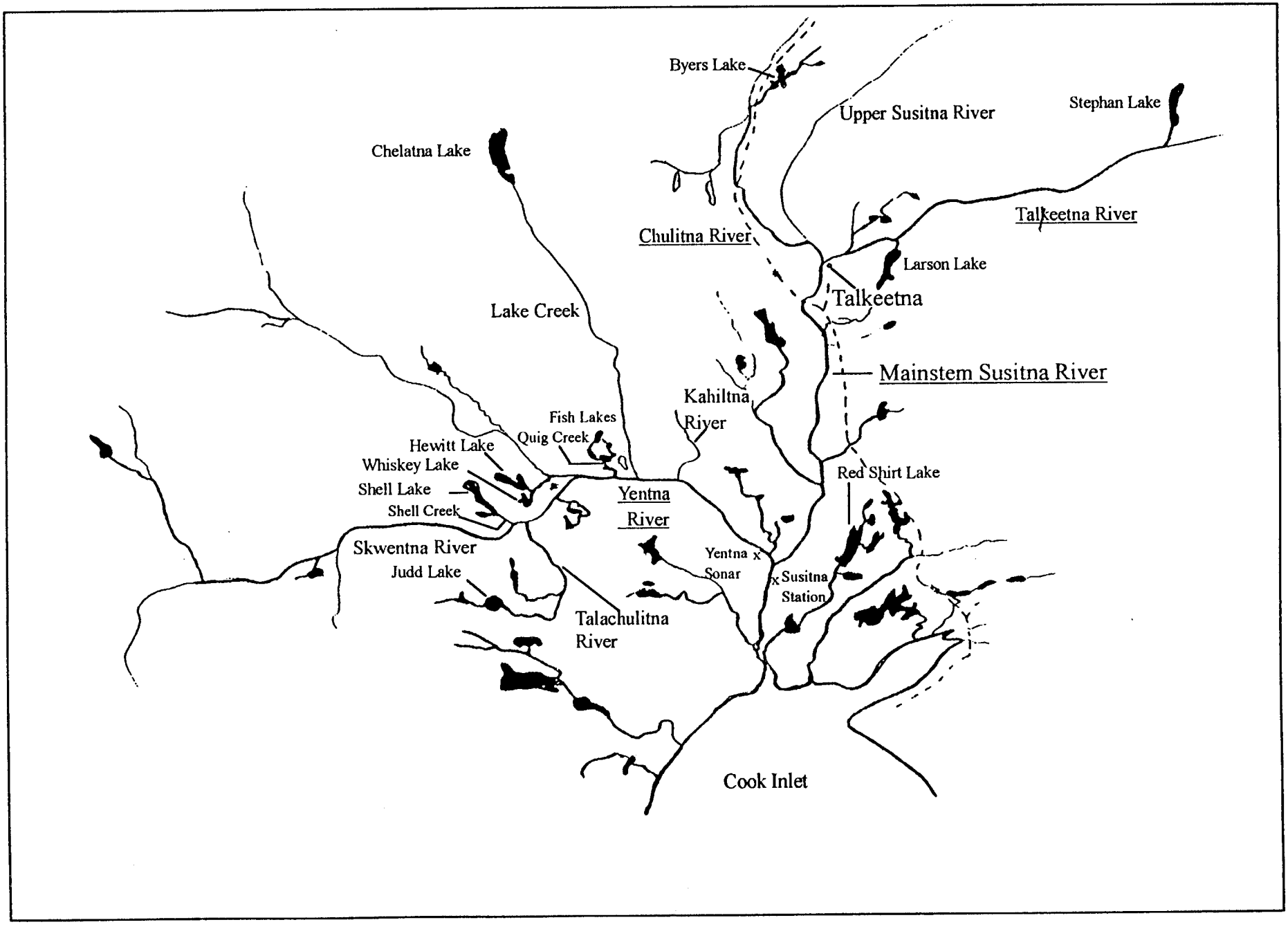


Figure 3. Major tributaries of the Susitna River

Red Shirt Lake Peak Aerial Surveys

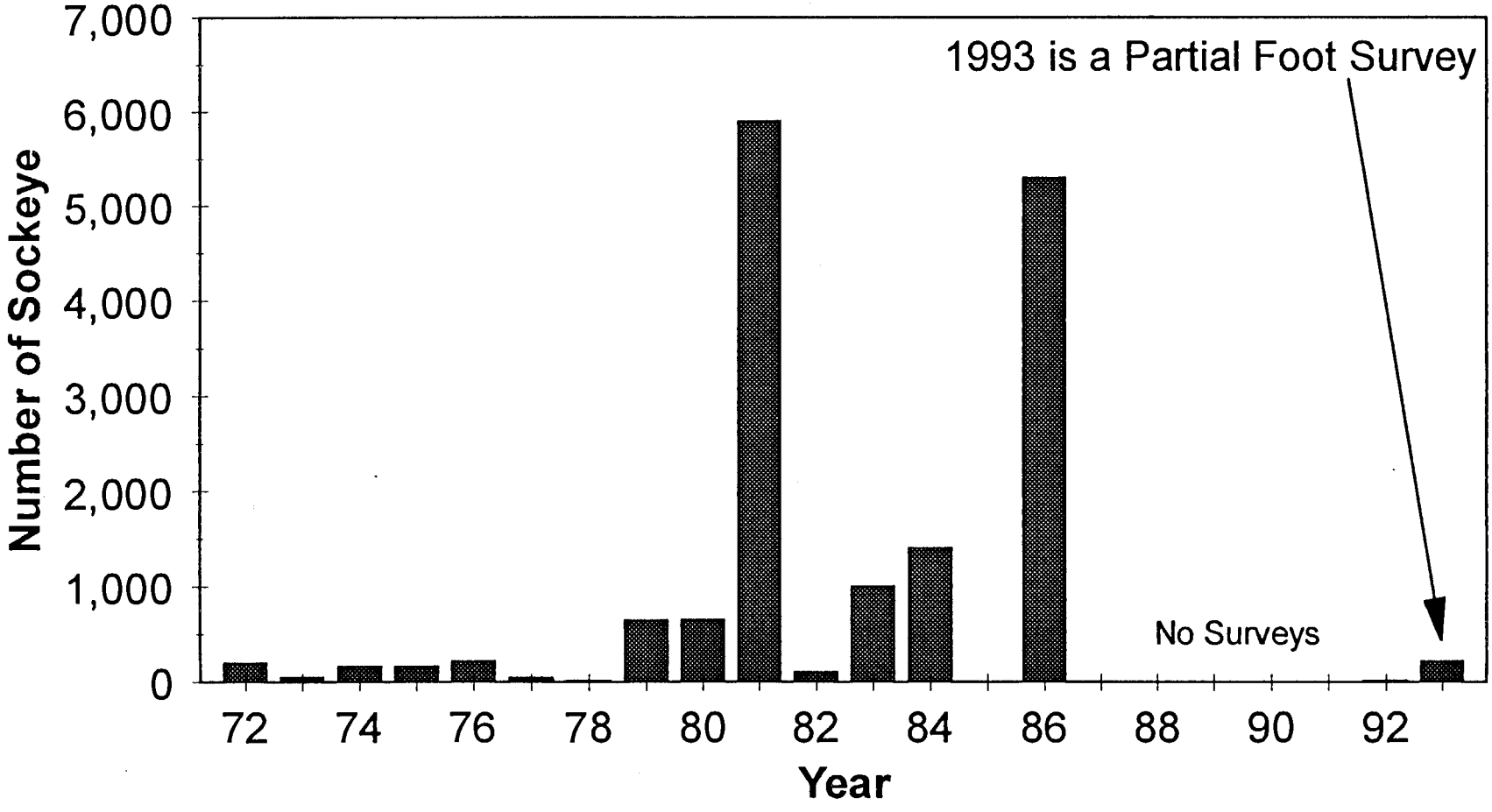


Figure 4. Red Shirt Lake peak sockeye surveys,1972-1993.

Chelatna Lake Sockeye Abundance Estimates 1980 to 1997

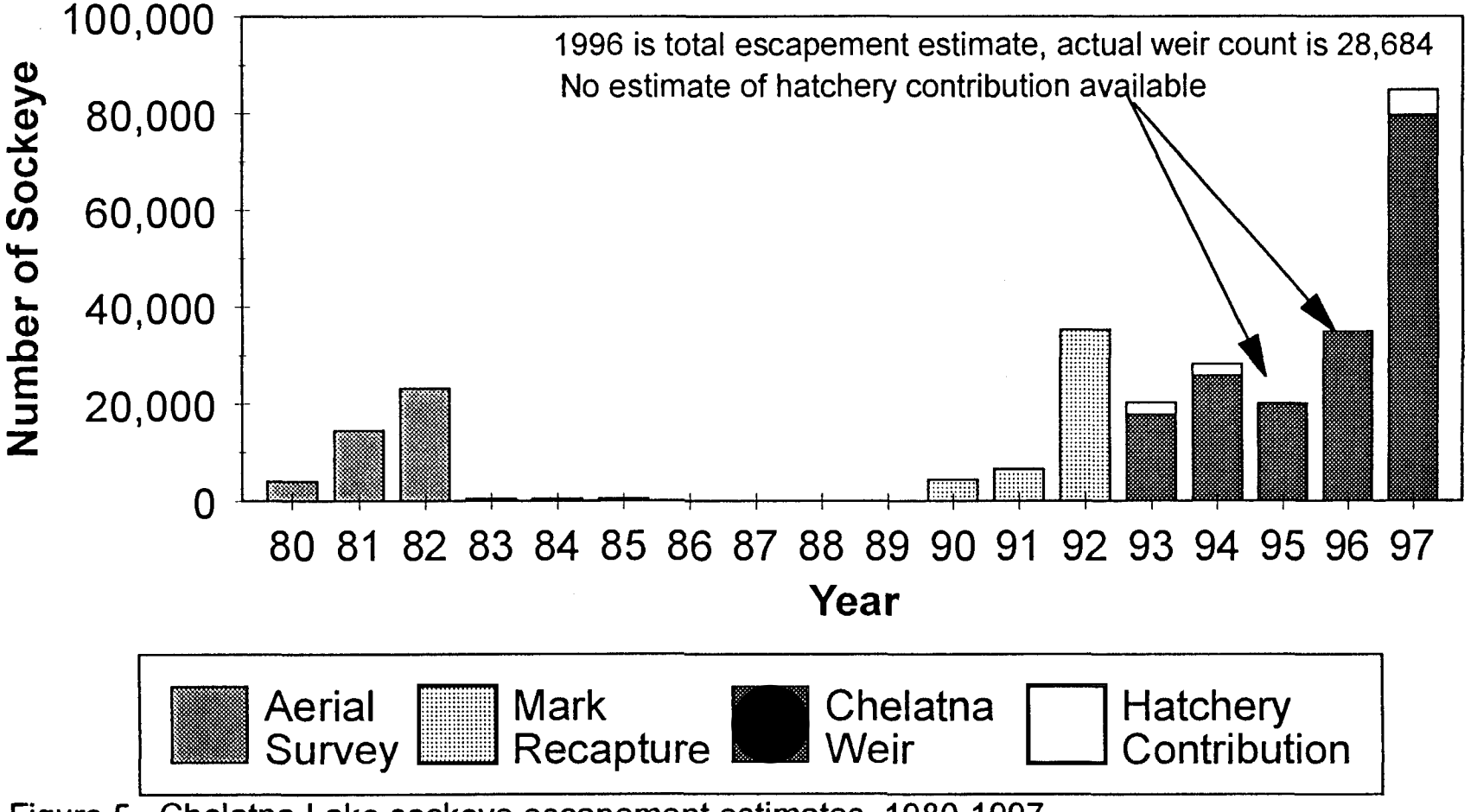


Figure 5. Chelatna Lake sockeye escapement estimates, 1980-1997.

Shell Lake Drainage Sockeye Escapements 1972-1997

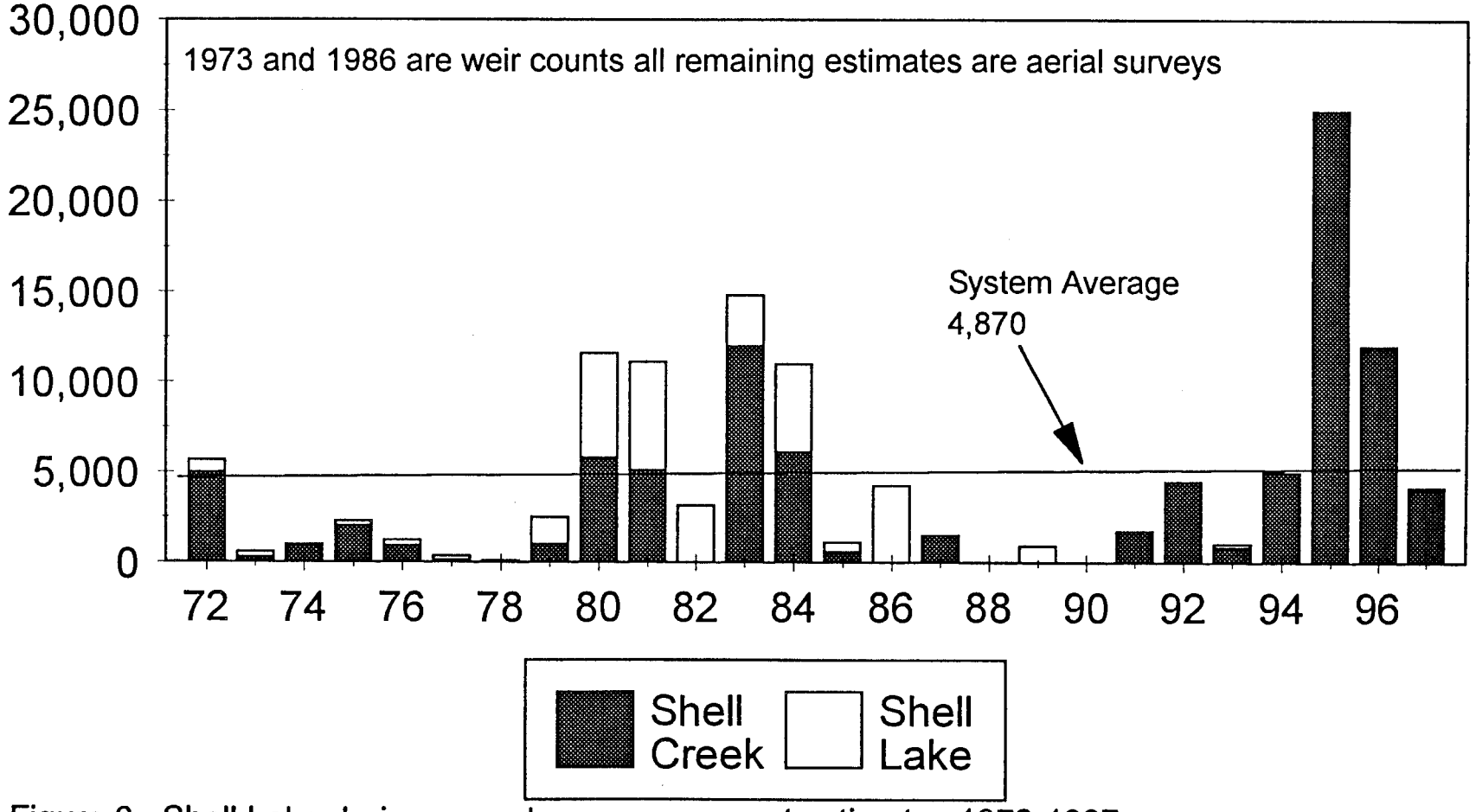


Figure 6. Shell Lake drainage sockeye escapement estimates 1972-1997.

Hewitt Creek Sockeye Abundance Estimates, 1972-1990

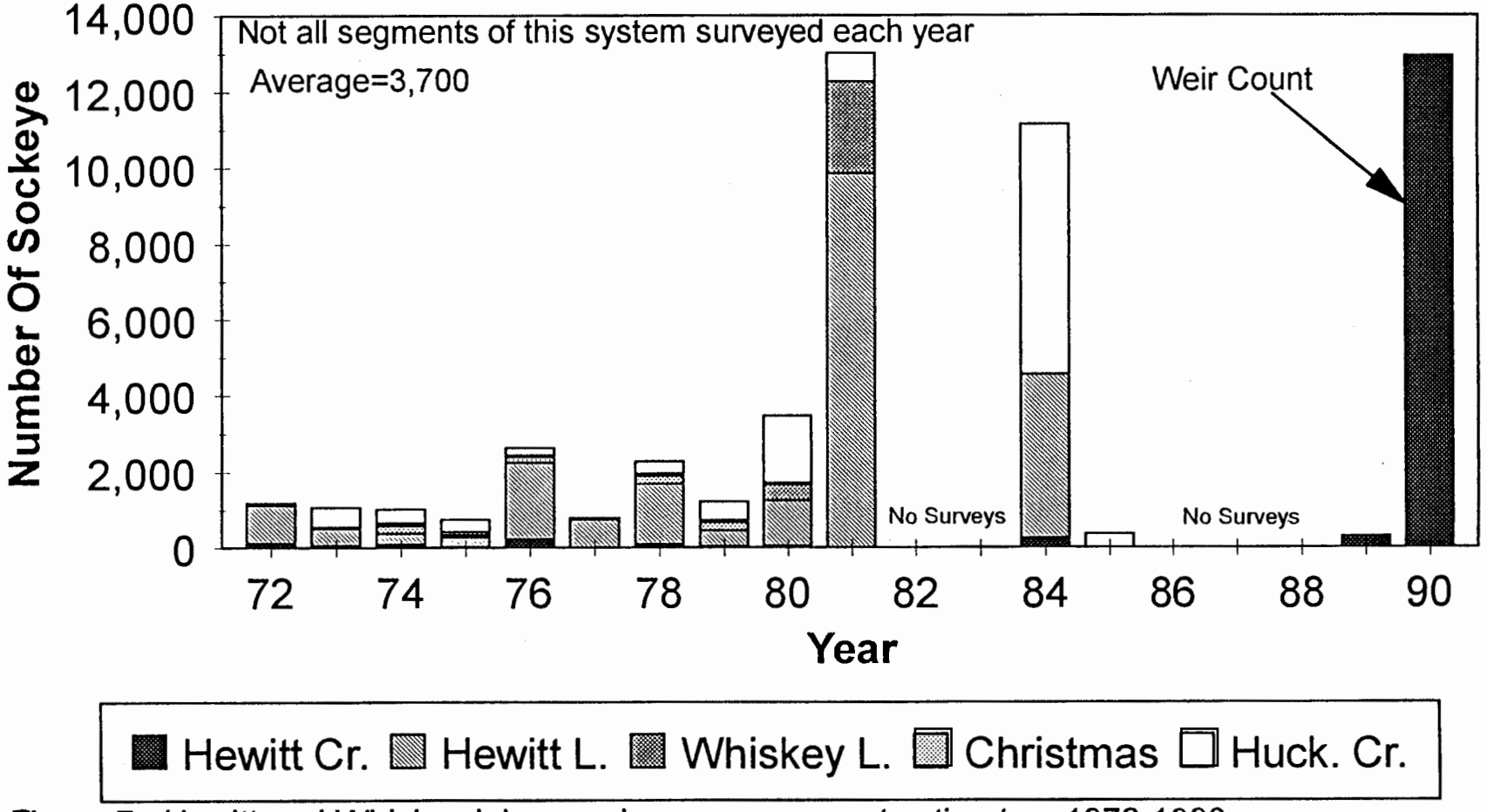


Figure 7. Hewitt and Whiskey lakes sockeye escapement estimates, 1972-1990.

Talachulitna River System Peak Sockeye Aerial Surveys 1972-1996

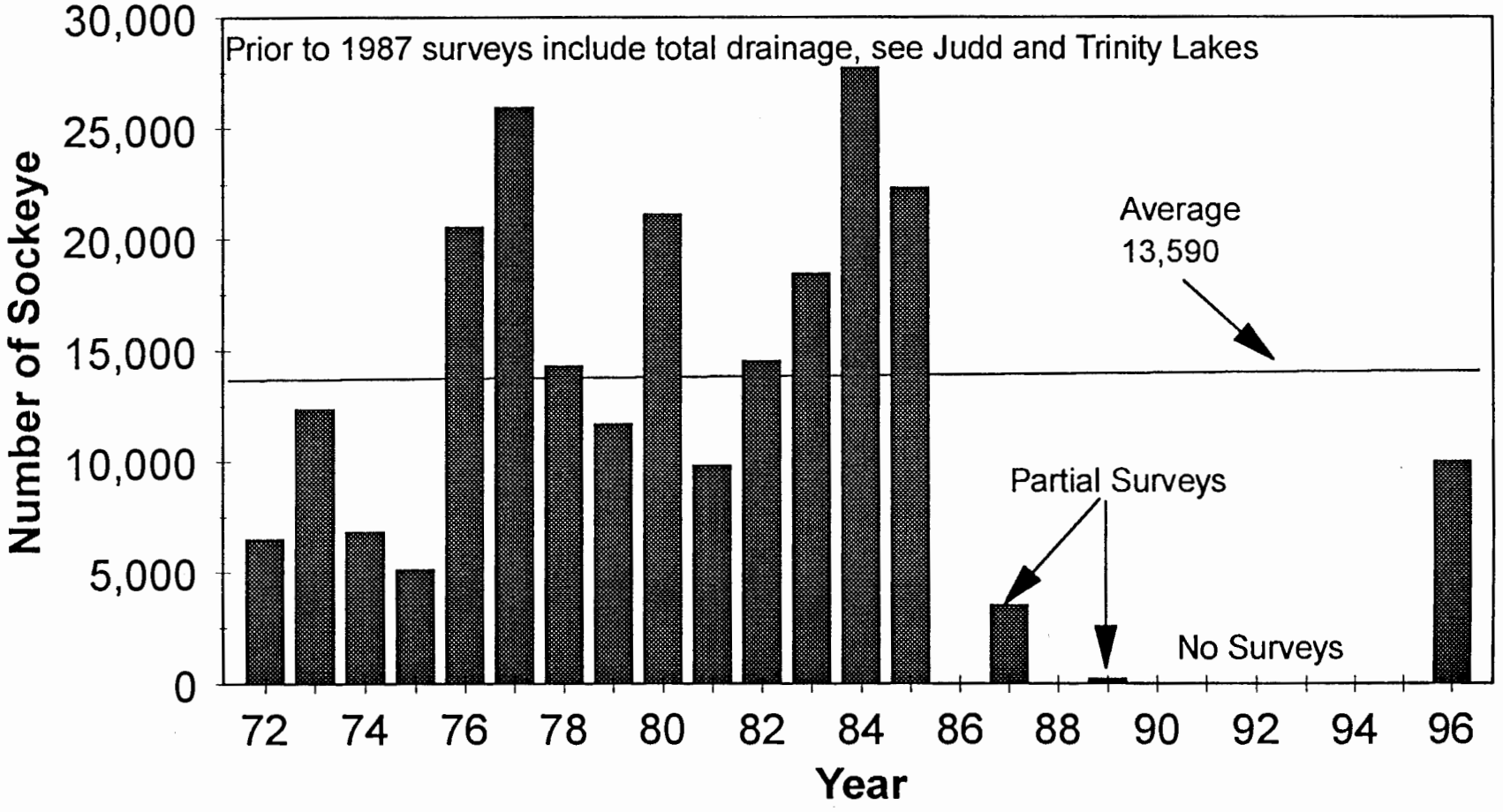


Figure 8. Talachulitna River system peak sockeye aerial surveys, 1972-1996.

Judd Lake Peak Aerial Surveys, 1970-1997

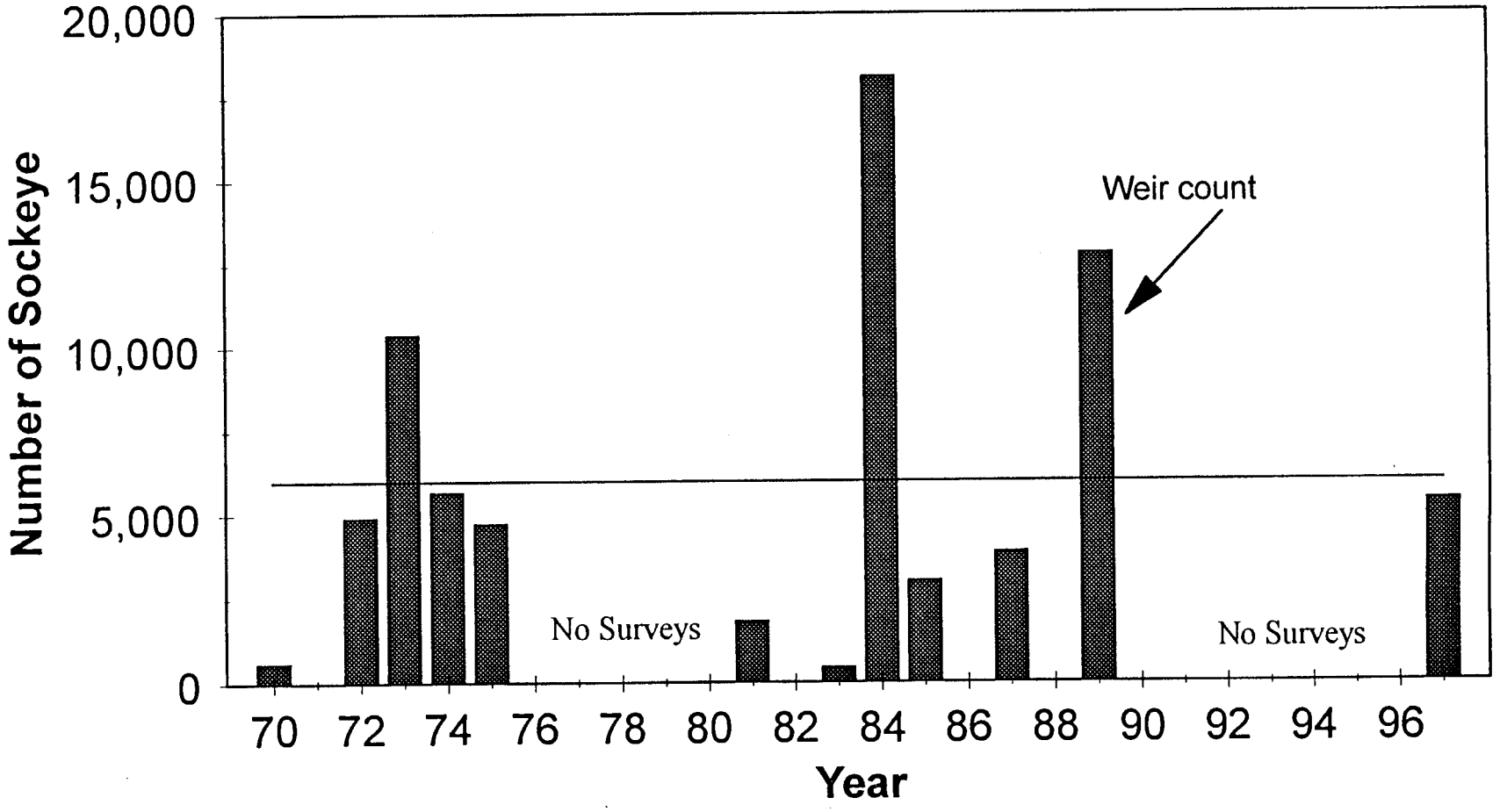


Figure 9. Judd Lake peak sockeye surveys, 1970-1997

Trinity Lake System Peak Sockeye Counts, 1972-1996

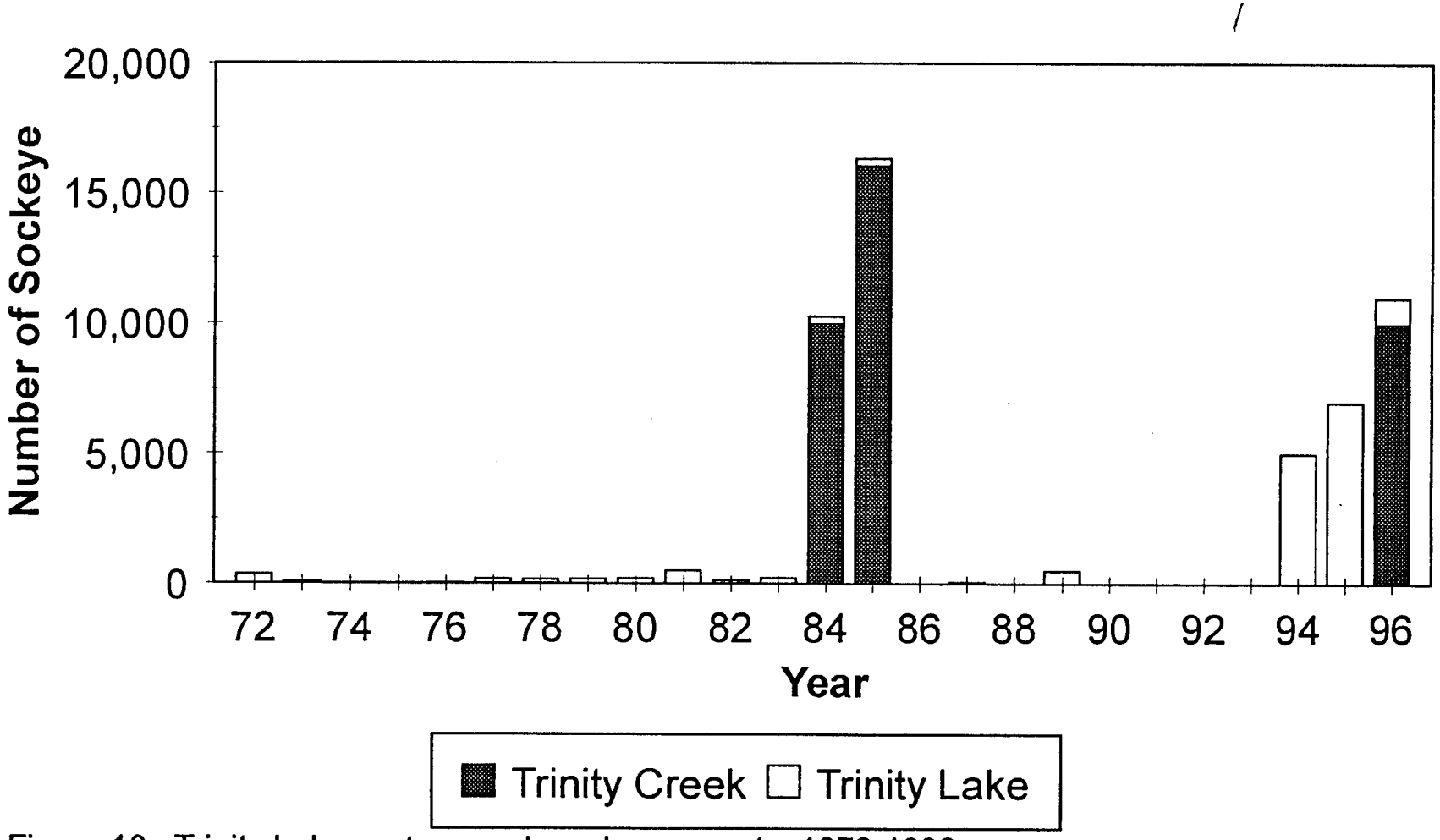


Figure 10. Trinity Lake system peak sockeye counts, 1972-1996.

Peak Sockeye Surveys in the West Fork Yentna River, 1976-1989

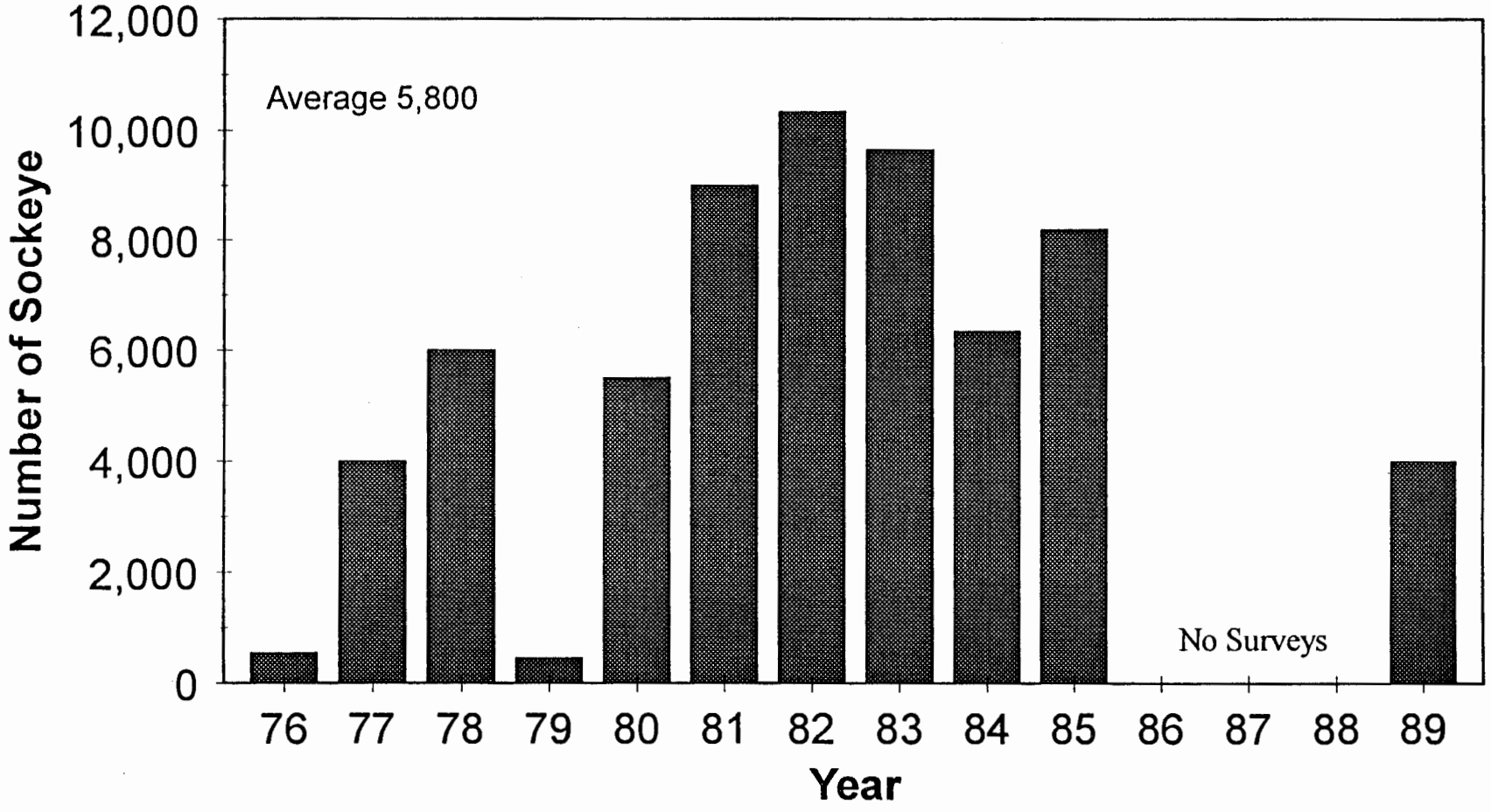


Figure 11. Peak surveys in the West Fork Yentna River, 1976-1989.

Yentna River Sockeye Sonar Counts, 1981-1997

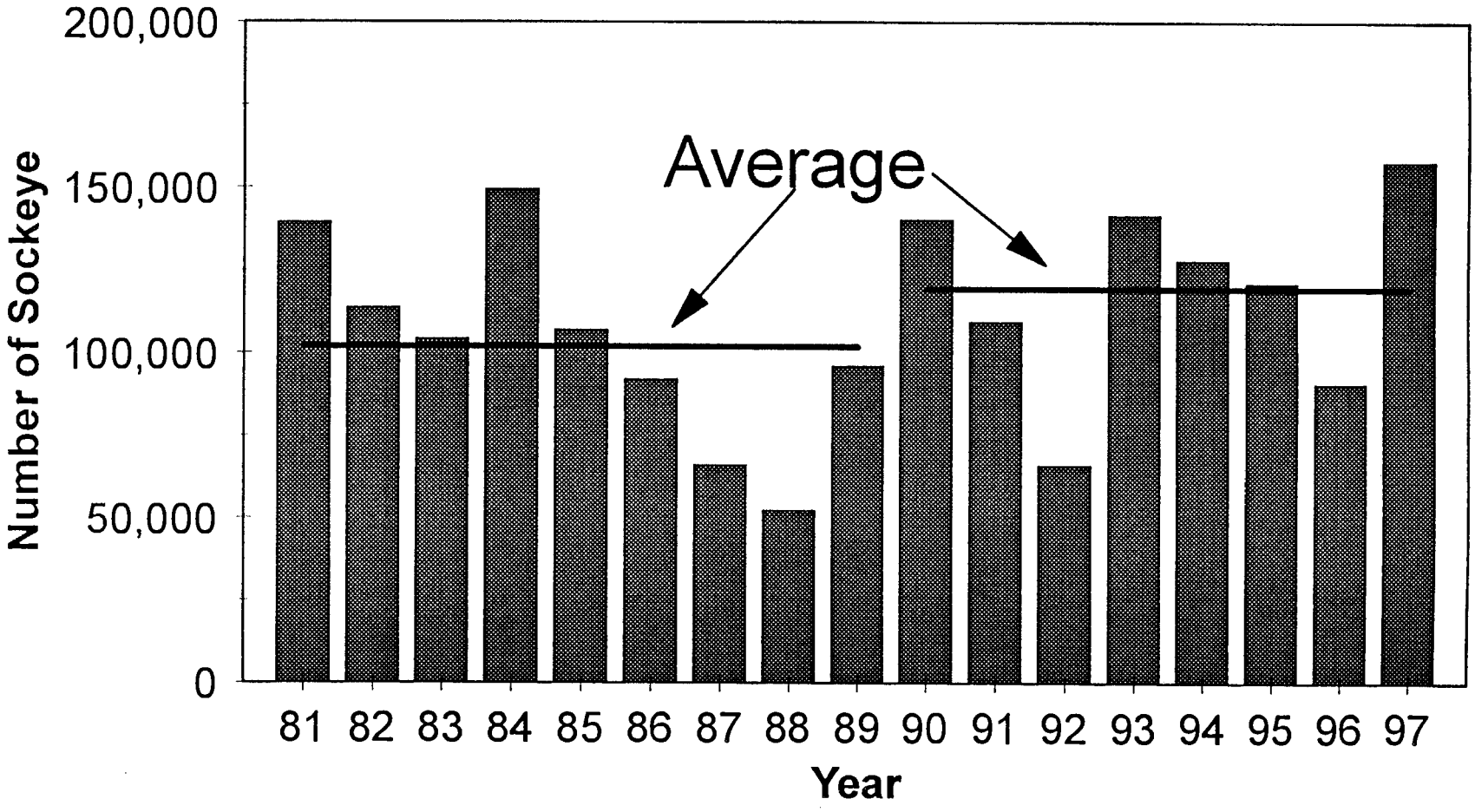


Figure 12. Yentna River sonar counts, 1981 to 1997.

Larson Lake Sockeye Escapement Estimates 1972-1997

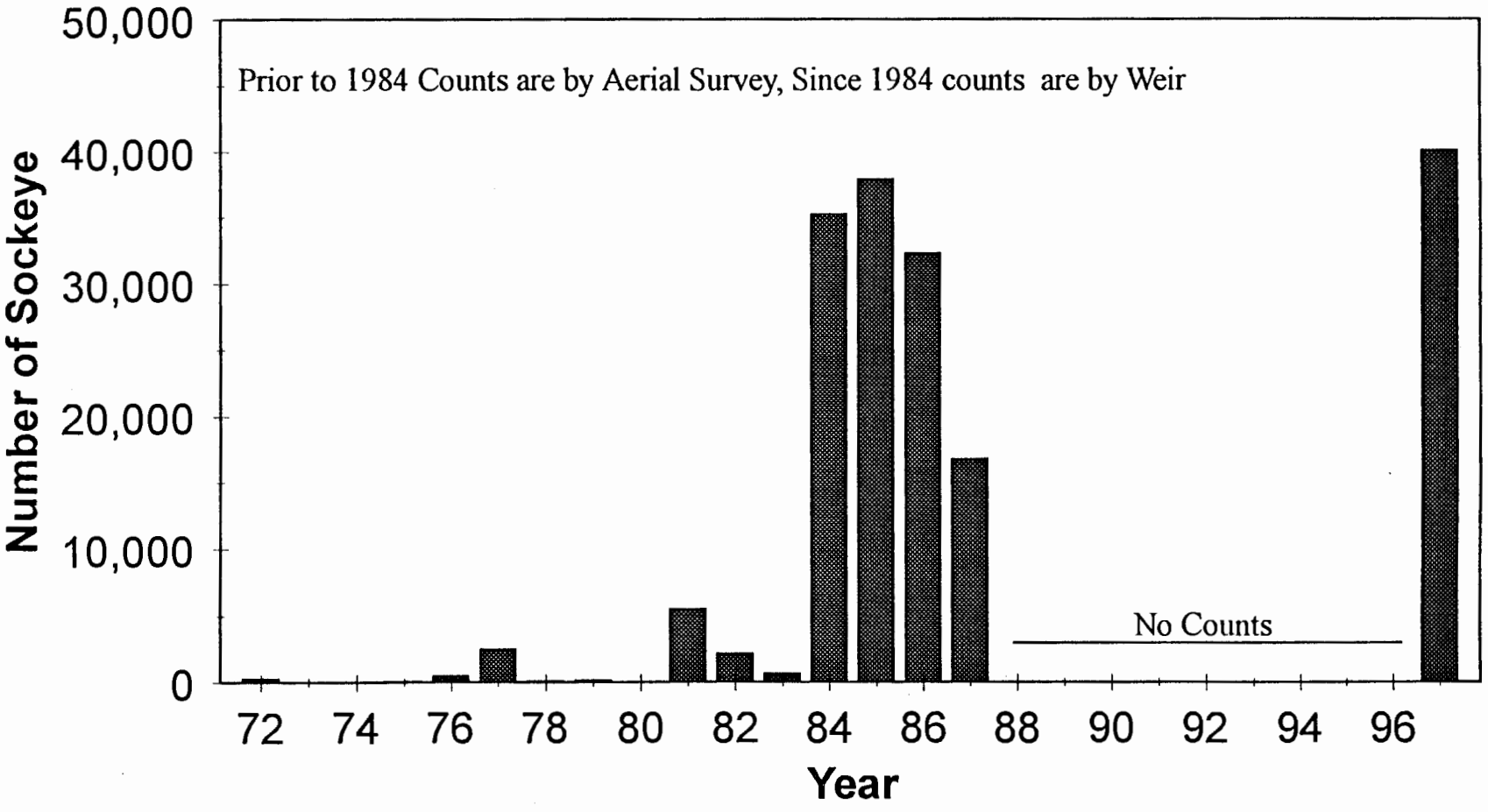


Figure 13. Larson Lake sockeye escapement estimates, 1972-1997.

Peak Aerial Sockeye Surveys in Swan Lake Chulitna River Drainage

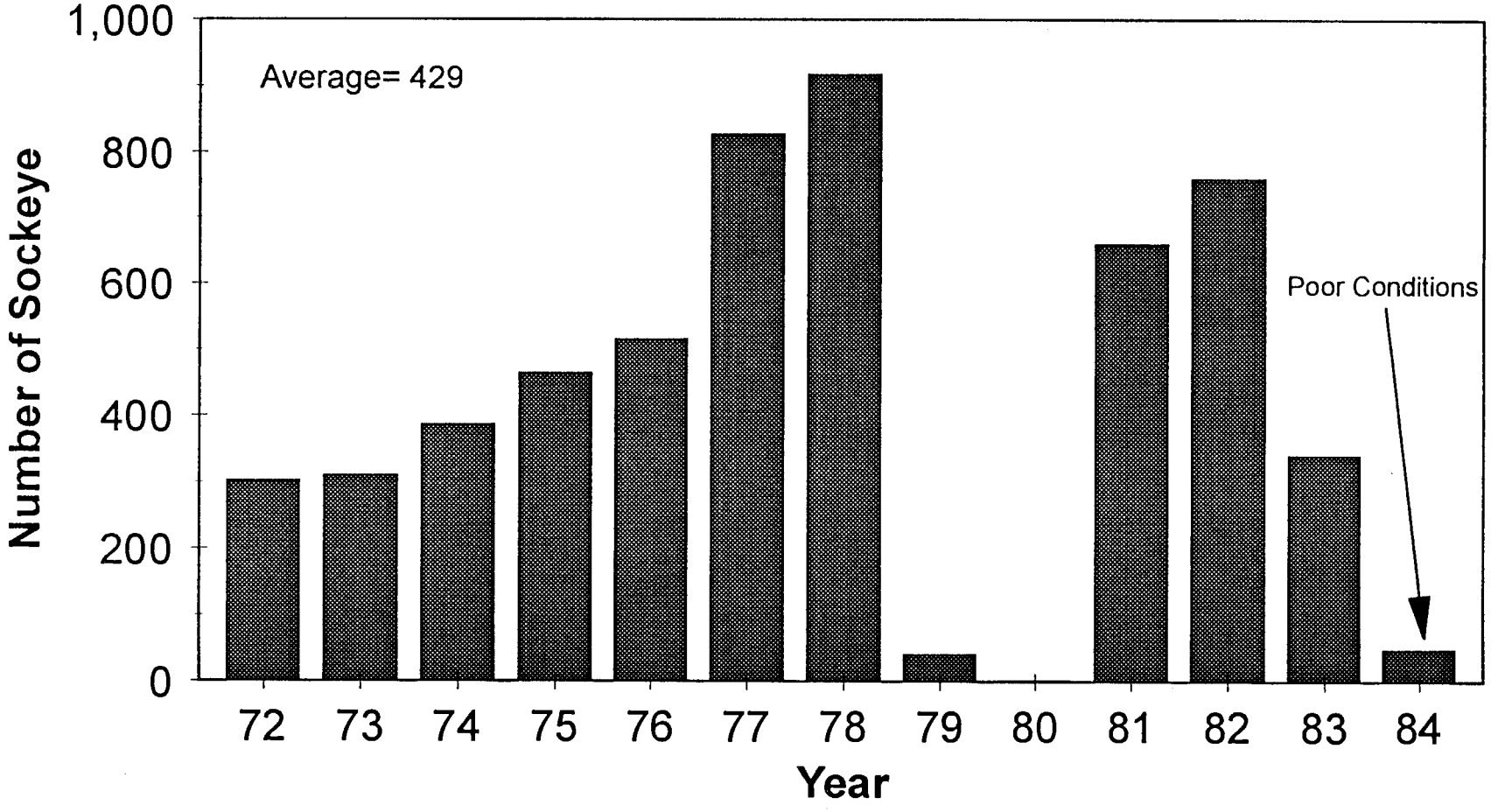


Figure 14. Peak surveys in Swan Lake, 1972-1984.

Susitna River Total Return Based on Age Composition With Average Return for the 70's, 80's & 90's

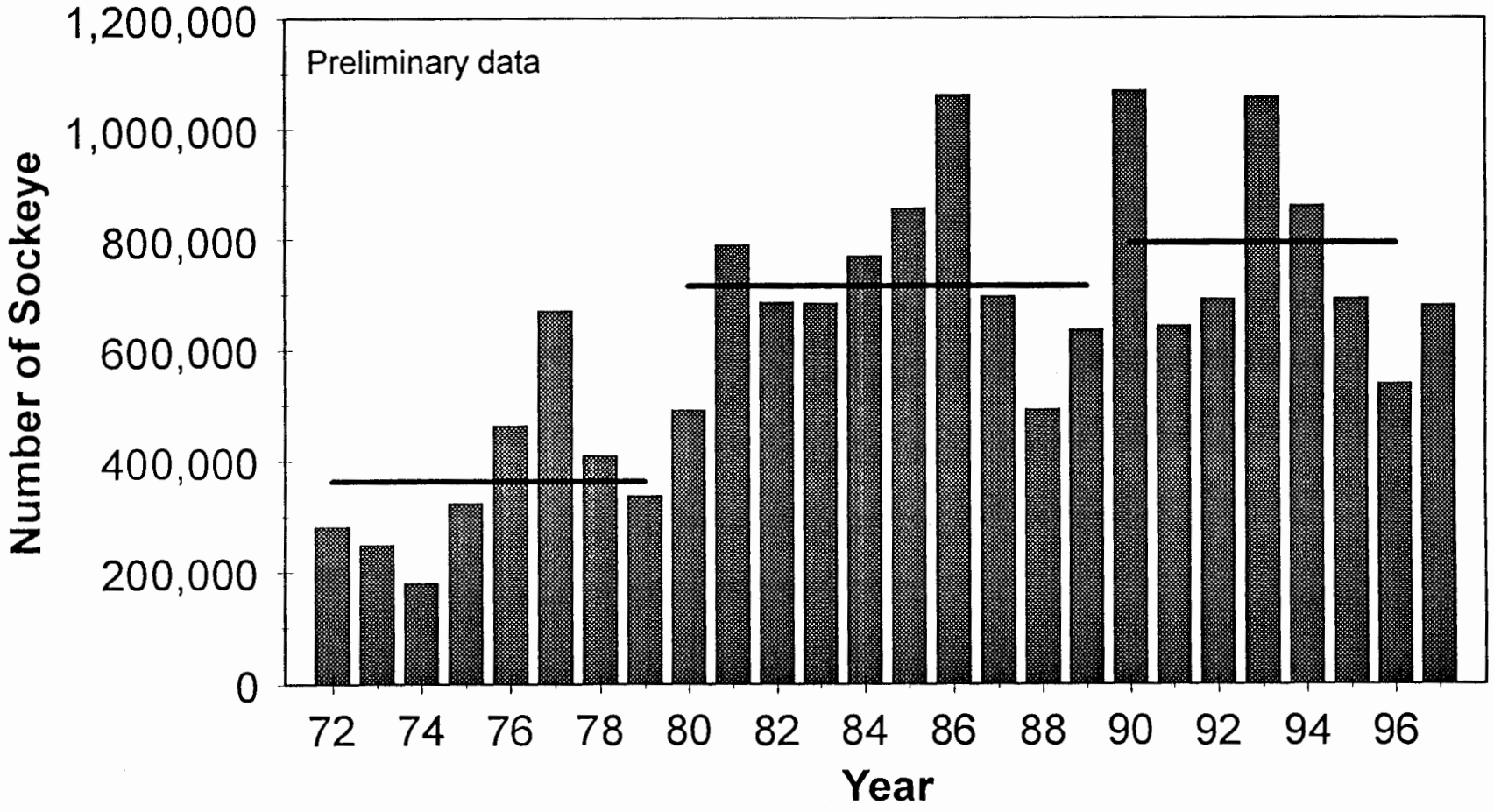


Figure 15. Susitna River total return based on age composition, 1972-1997.

Susitna River Total Return by Brood Year 1968 to 1990 with Average by Decade

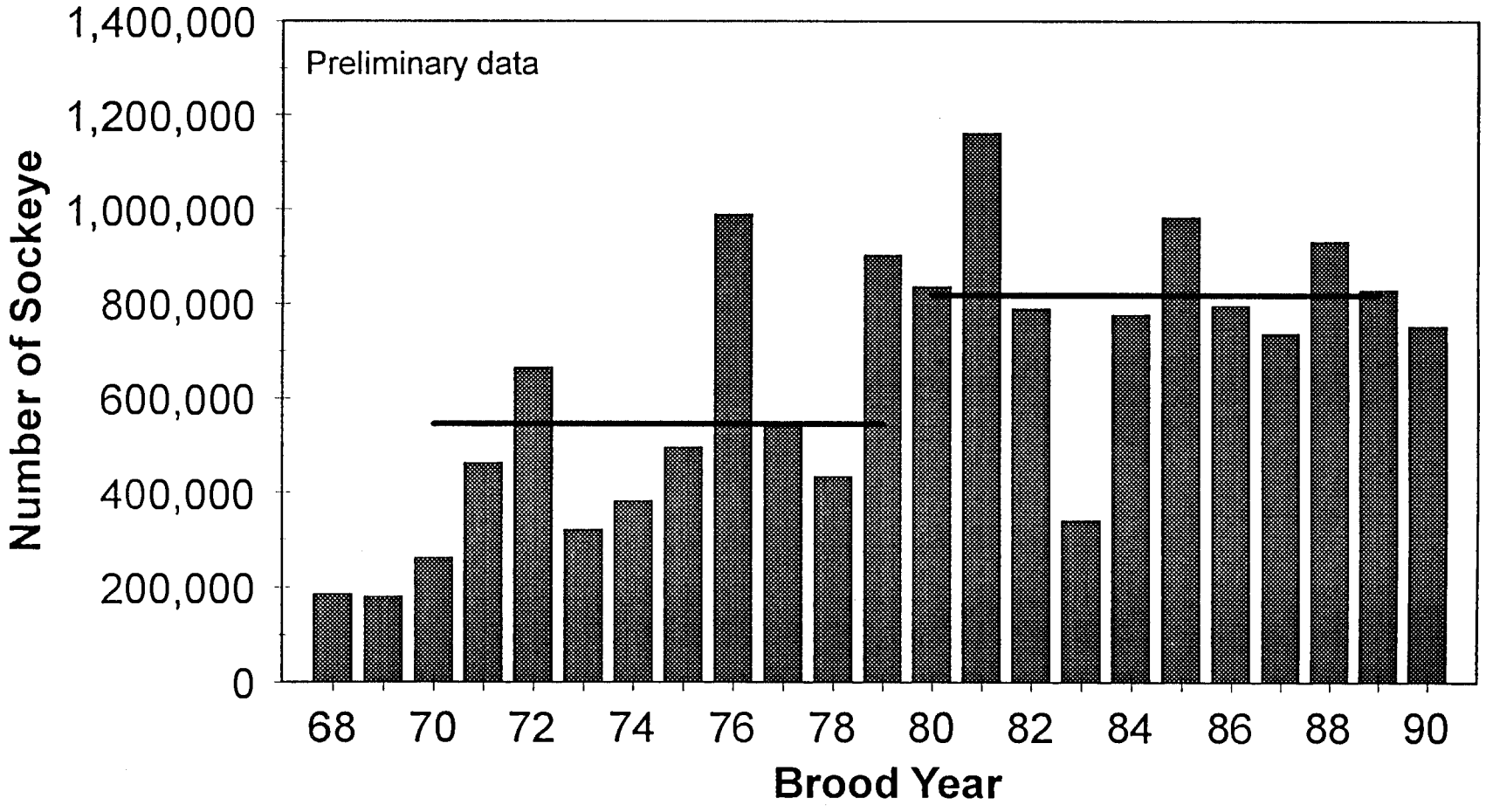


Figure 16. Susitna River total return by brood year, 1968-1990.

Fish Creek Sockeye Escapement Counts, 1968-1997

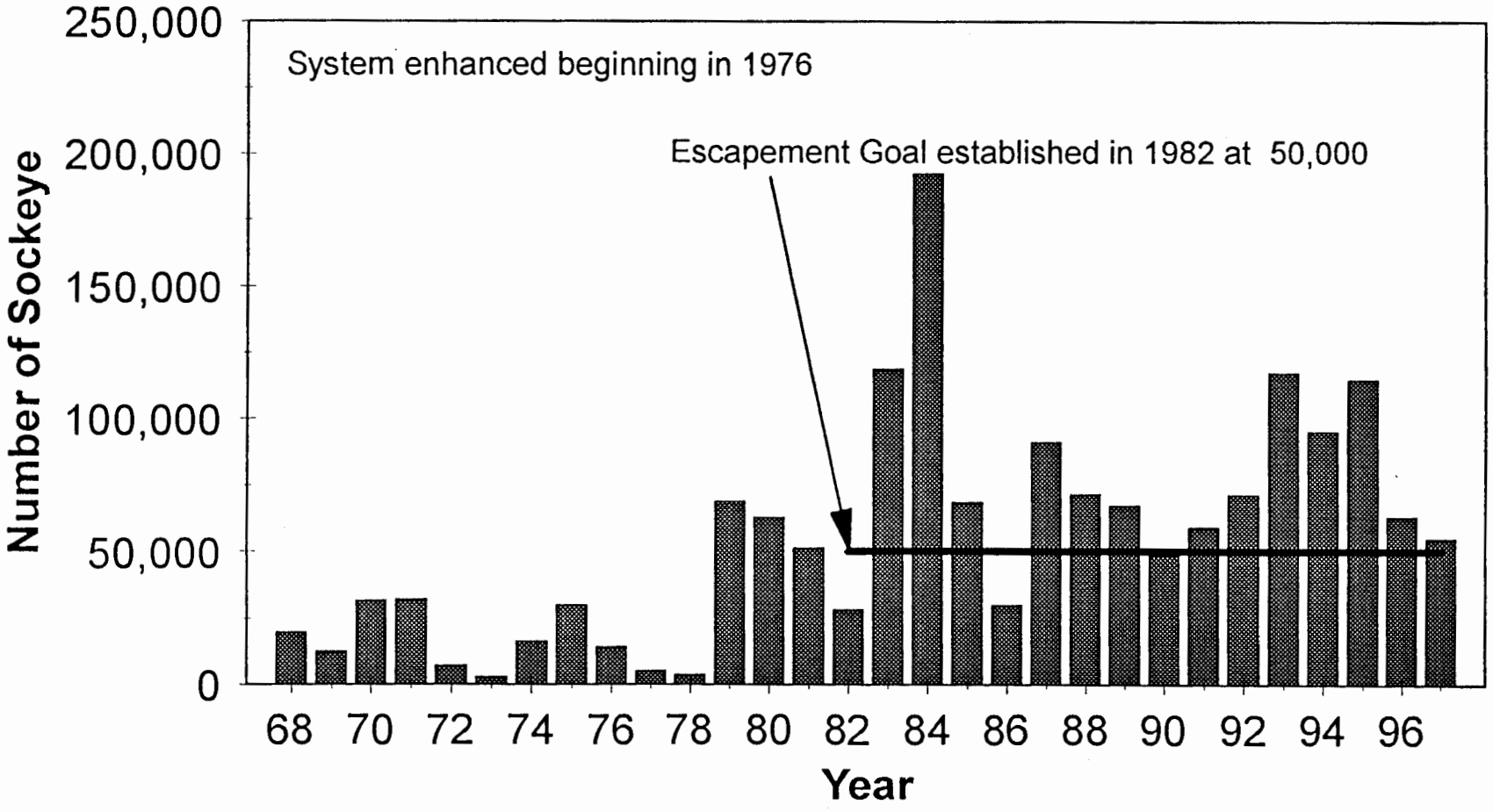


Figure 17. Fish Creek sockeye escapement counts, 1968-1997.

Chilligan River Peak Aerial Surveys, 1981-1997

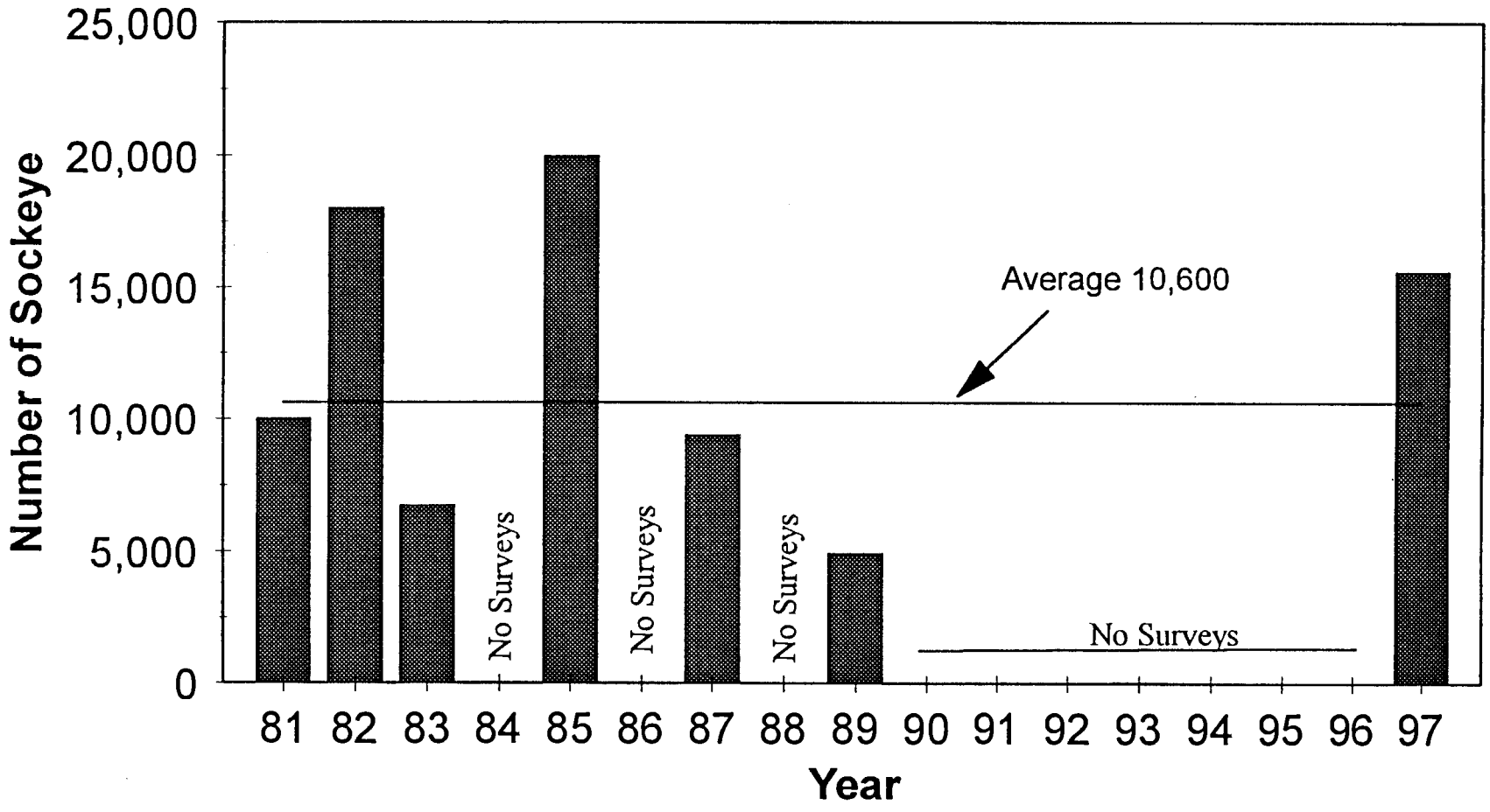


Figure 18. Chilligan River peak surveys, 1981-1997.

West Fork Coal Creek Peak Aerial Surveys, 1975-1997

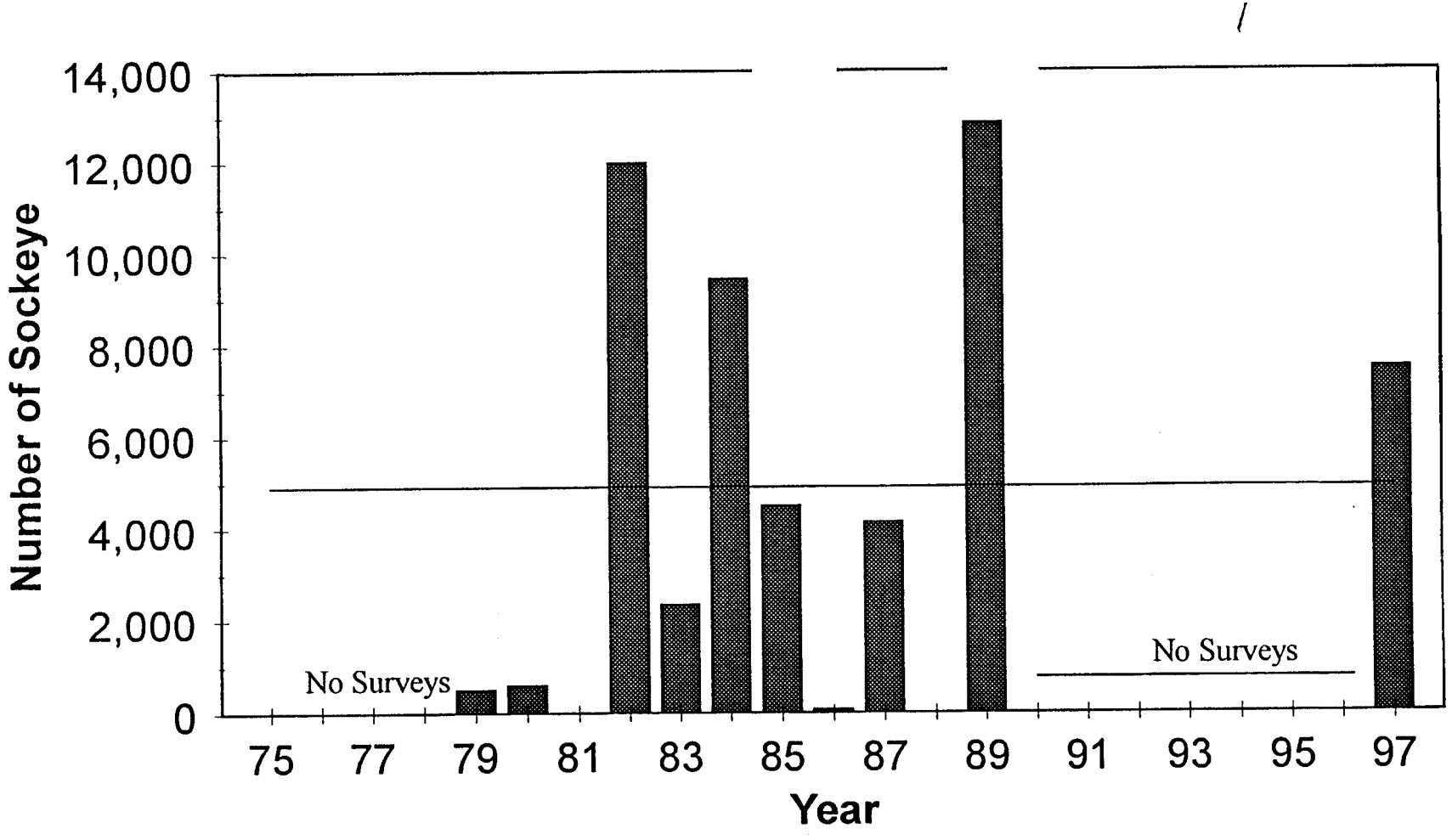


Figure 19. West Fork Coal Creek peak aerial surveys, 1975-1997.

Cottonwood Creek Sockeye Escapement Estimates, 1970-1997

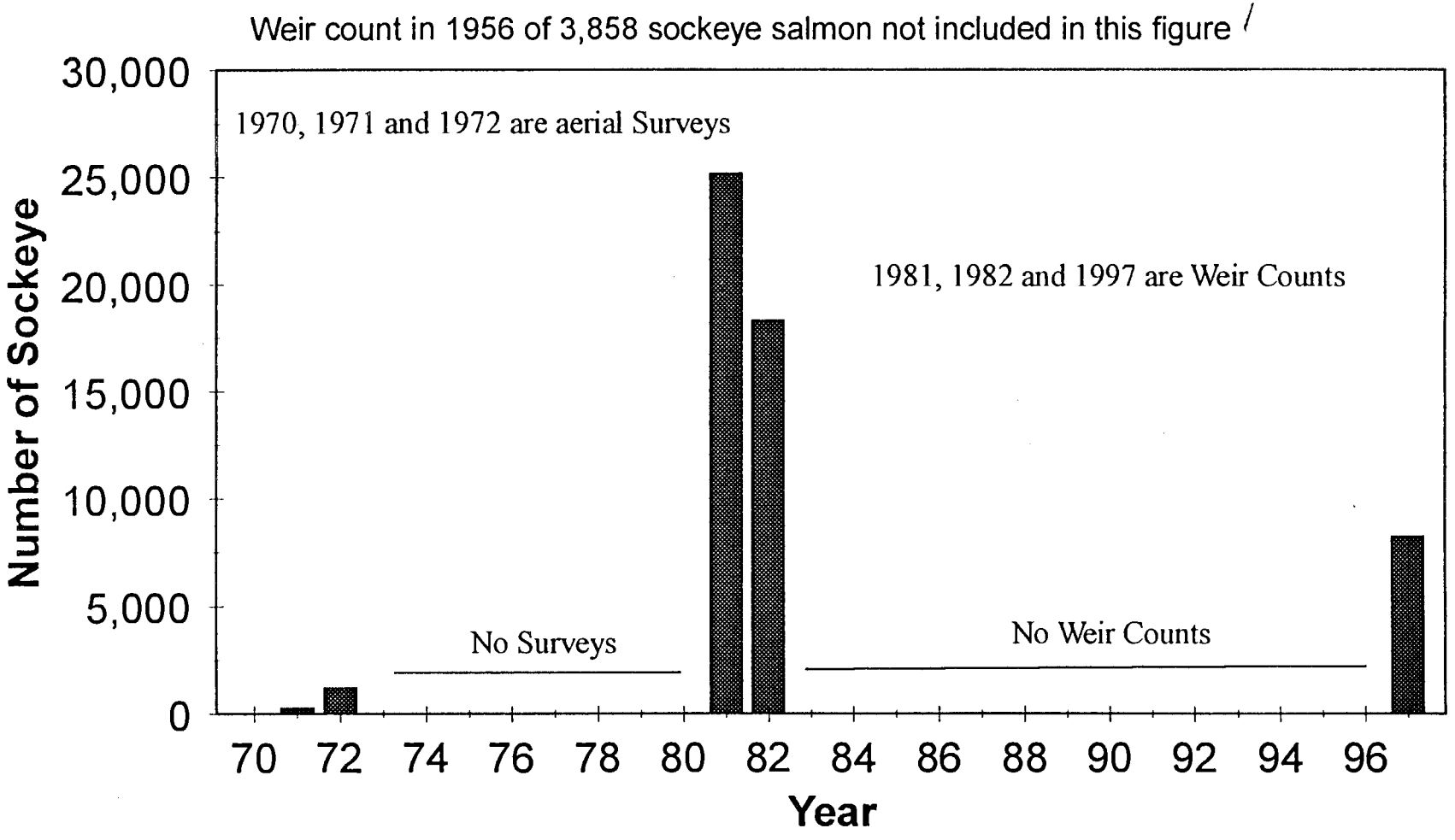


Figure 20. Cottonwood Creek sockeye escapement estimates, 1970-1997.

Threemile Creek Peak Aerial Surveys, 1984-1997

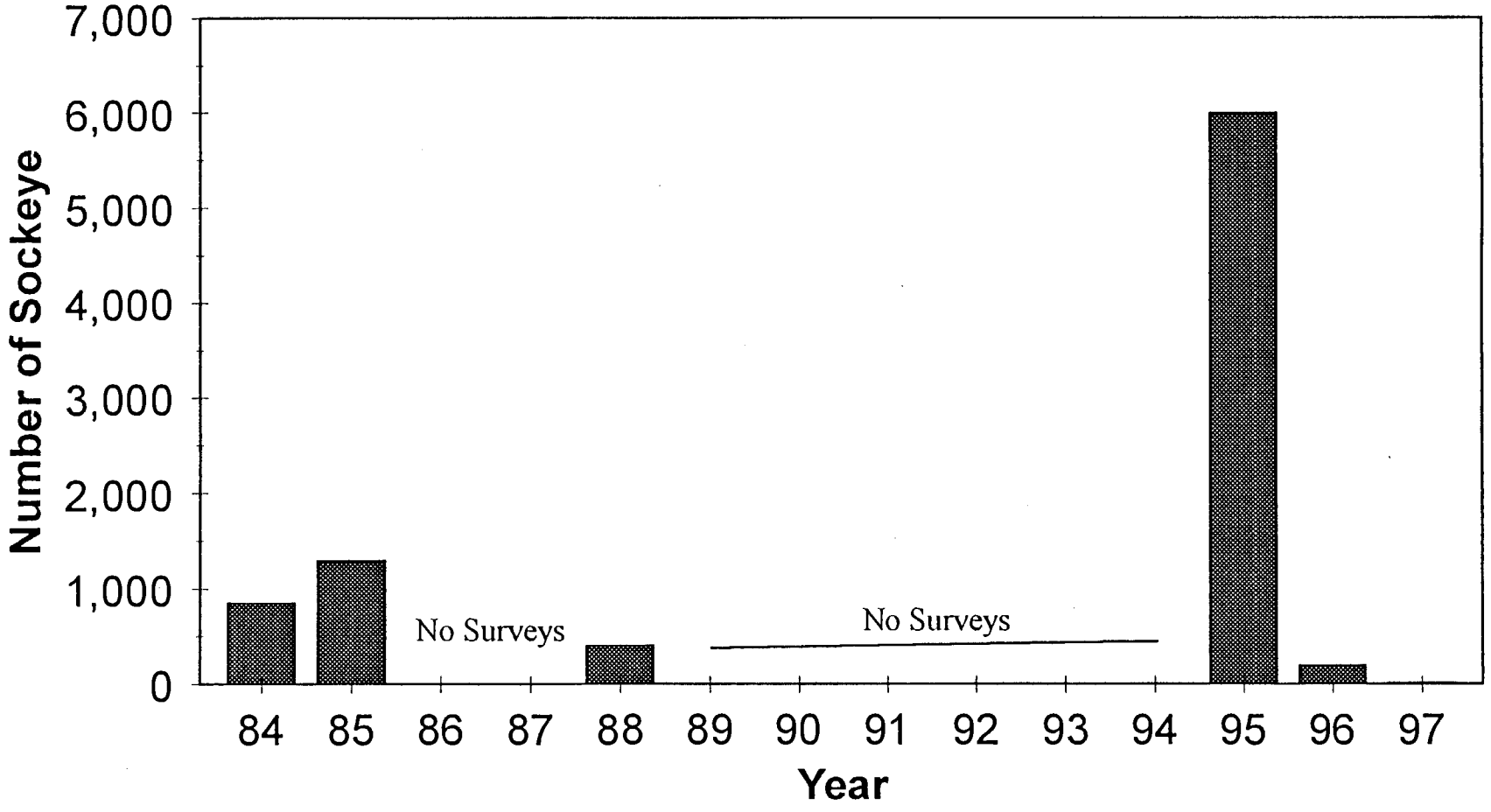


Figure 21. Three Mile Creek peak aerial surveys, 1984-1997.

Little Susitna River Sockeye Weir Counts and Nancy Lake Weir and Aerial Surveys, 1972-1997

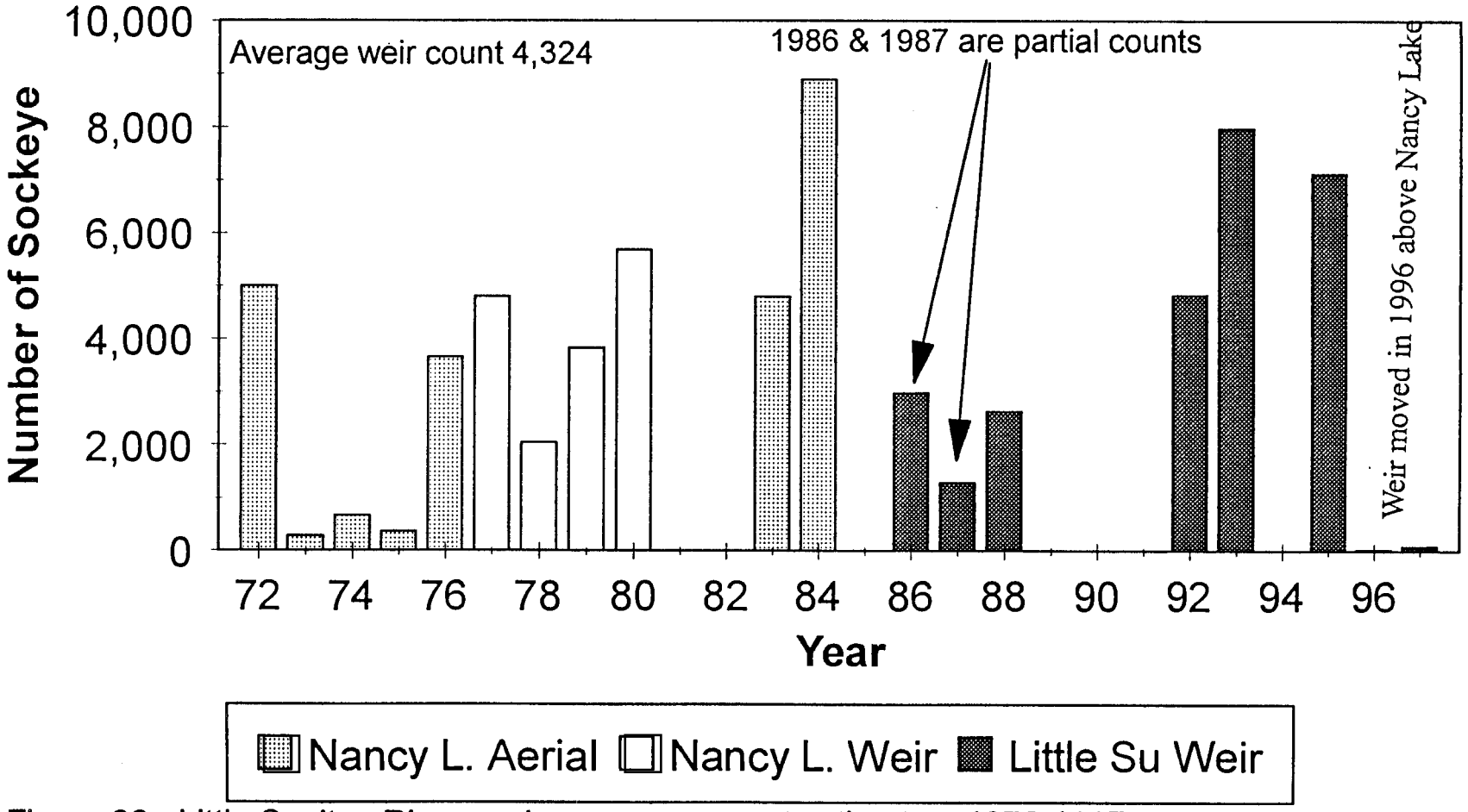


Figure 22. Little Susitna River sockeye escapement estimates, 1972-1997.

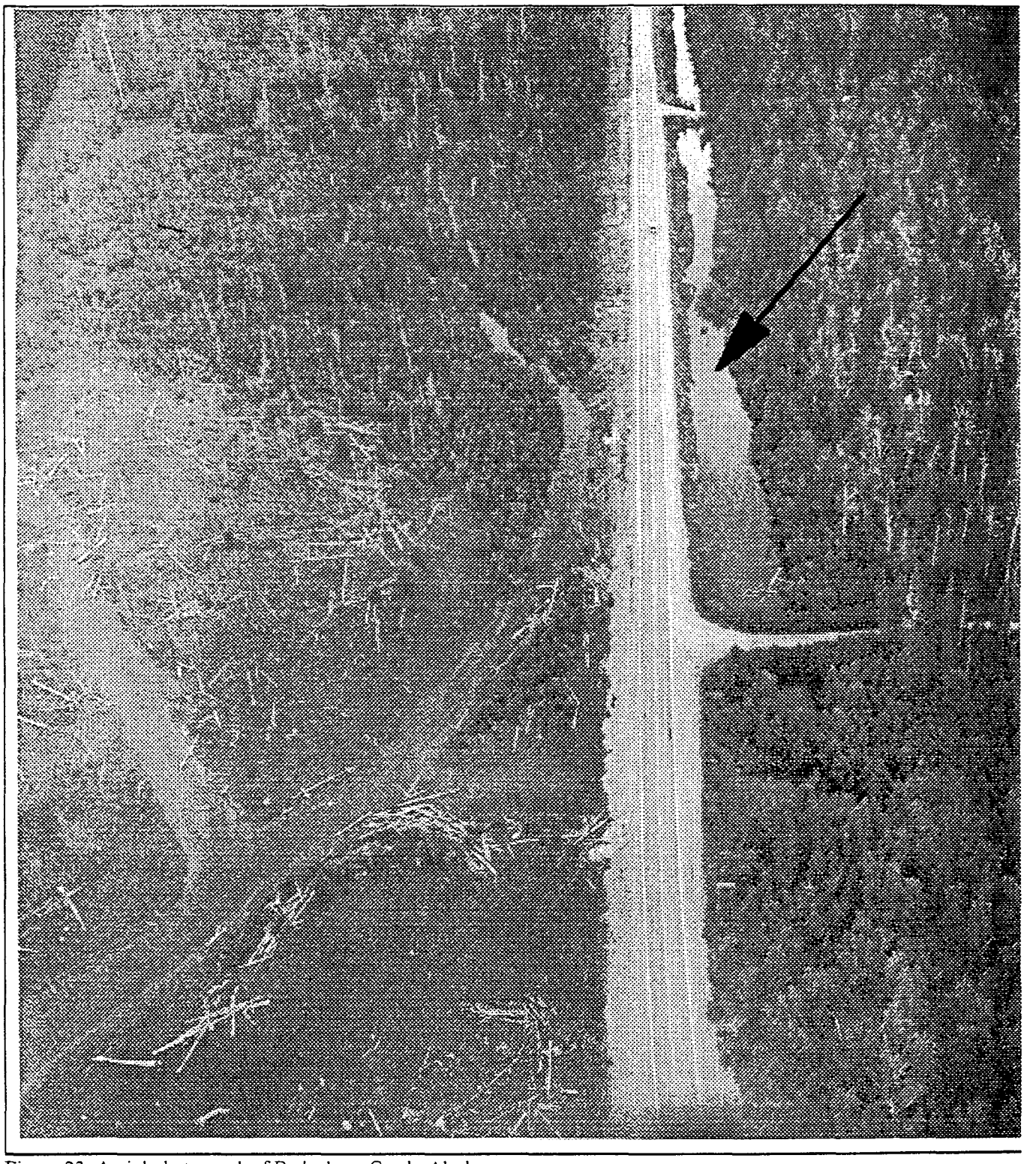


Figure 23. Aerial photograph of Bodenburg Creek, Alaska.

Bodenburg Creek Peak Sockeye Surveys, 1968-1997

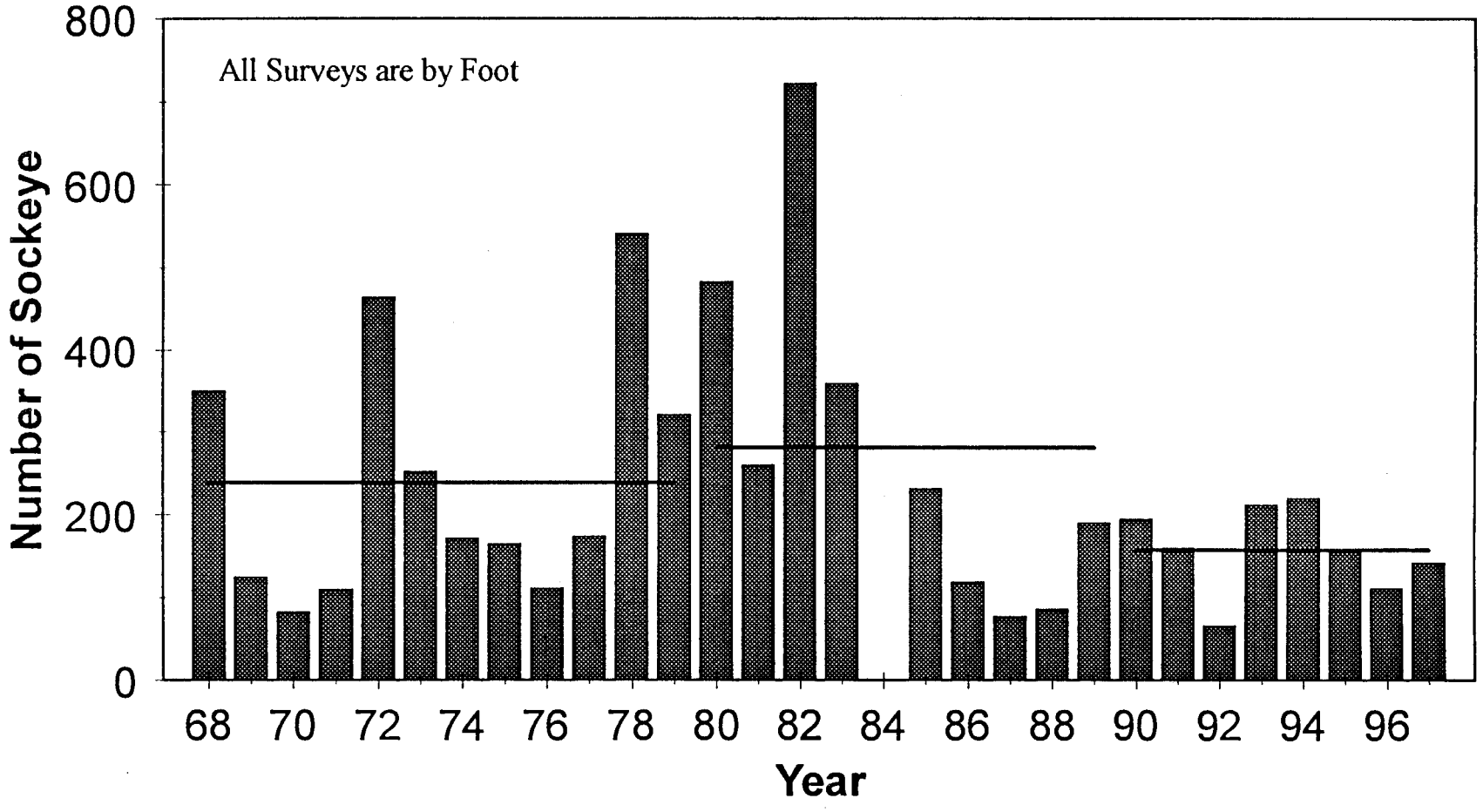


Figure 24. Bodenburg Creek peak sockeye surveys, 1968-1997.

Sockeye Weir Counts in Six Mile Creek, # 15, 1988-1997

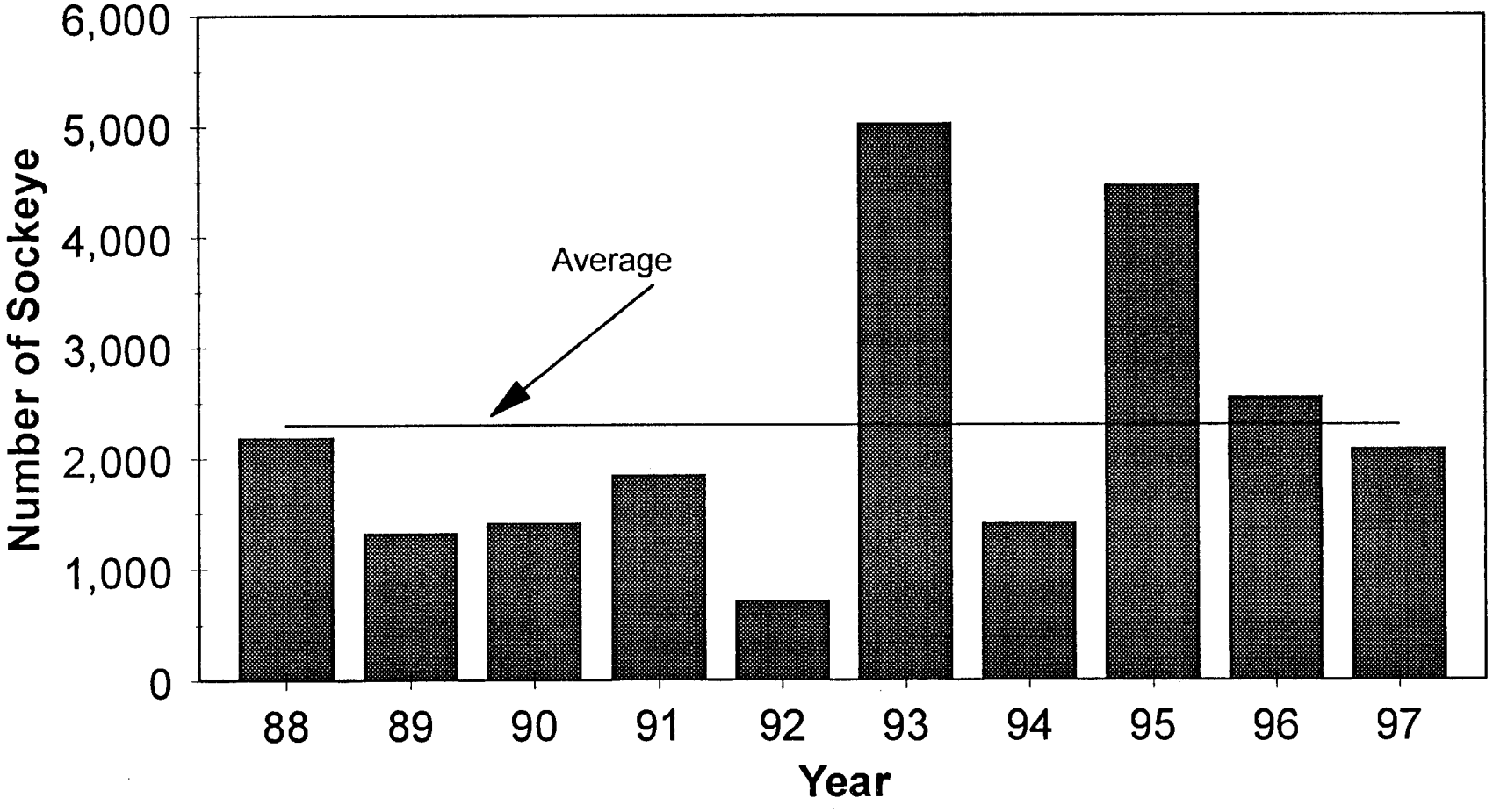


Figure 25. Six Mile Creek sockeye counts, 1988-1997.

Sockeye Counts in Campbell Creek, # 17, 1986-1997

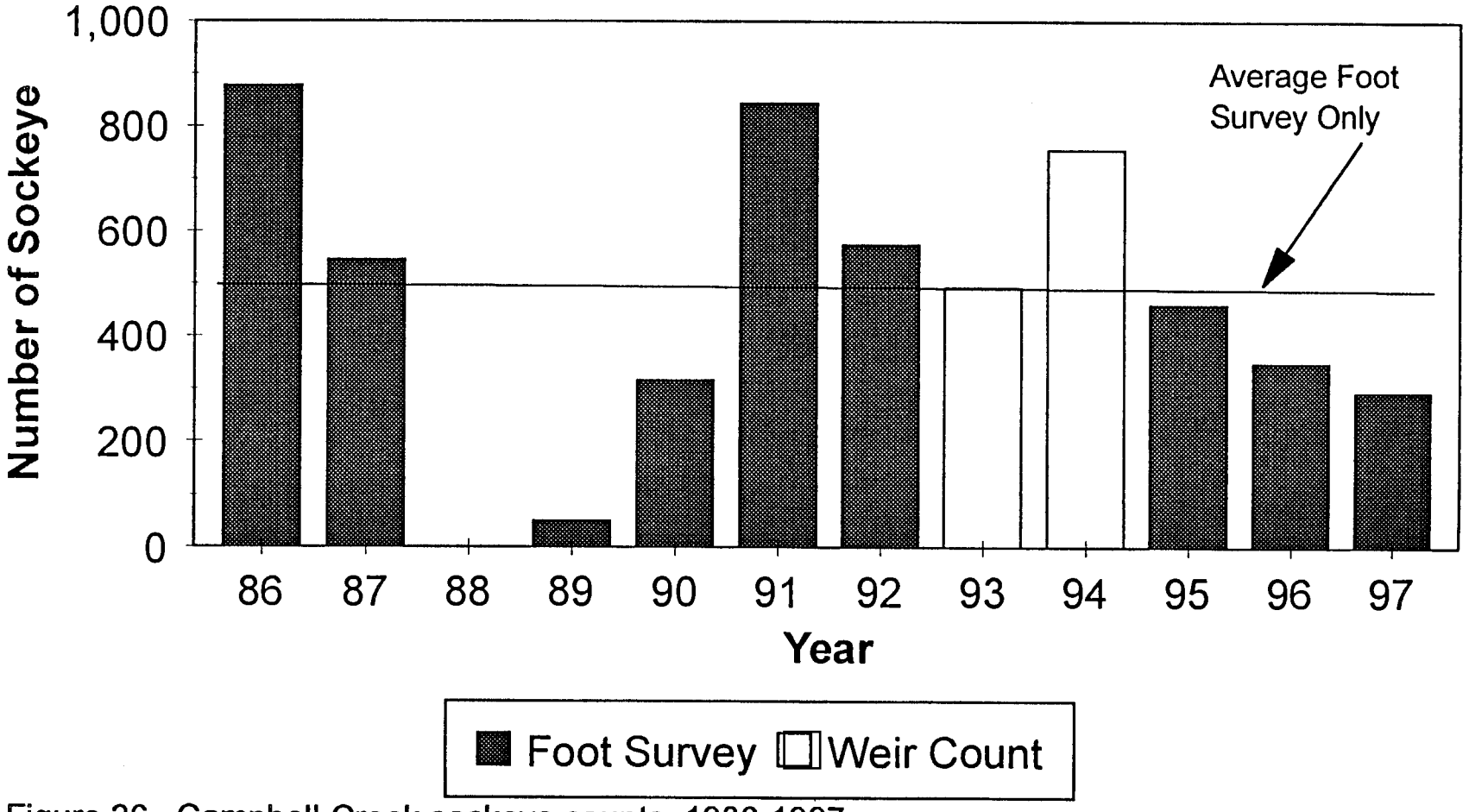


Figure 26. Campbell Creek sockeye counts, 1986-1997.

Yentna River Sockeye Sonar Counts with Chelatna Lake Enhancement, 1981-1997

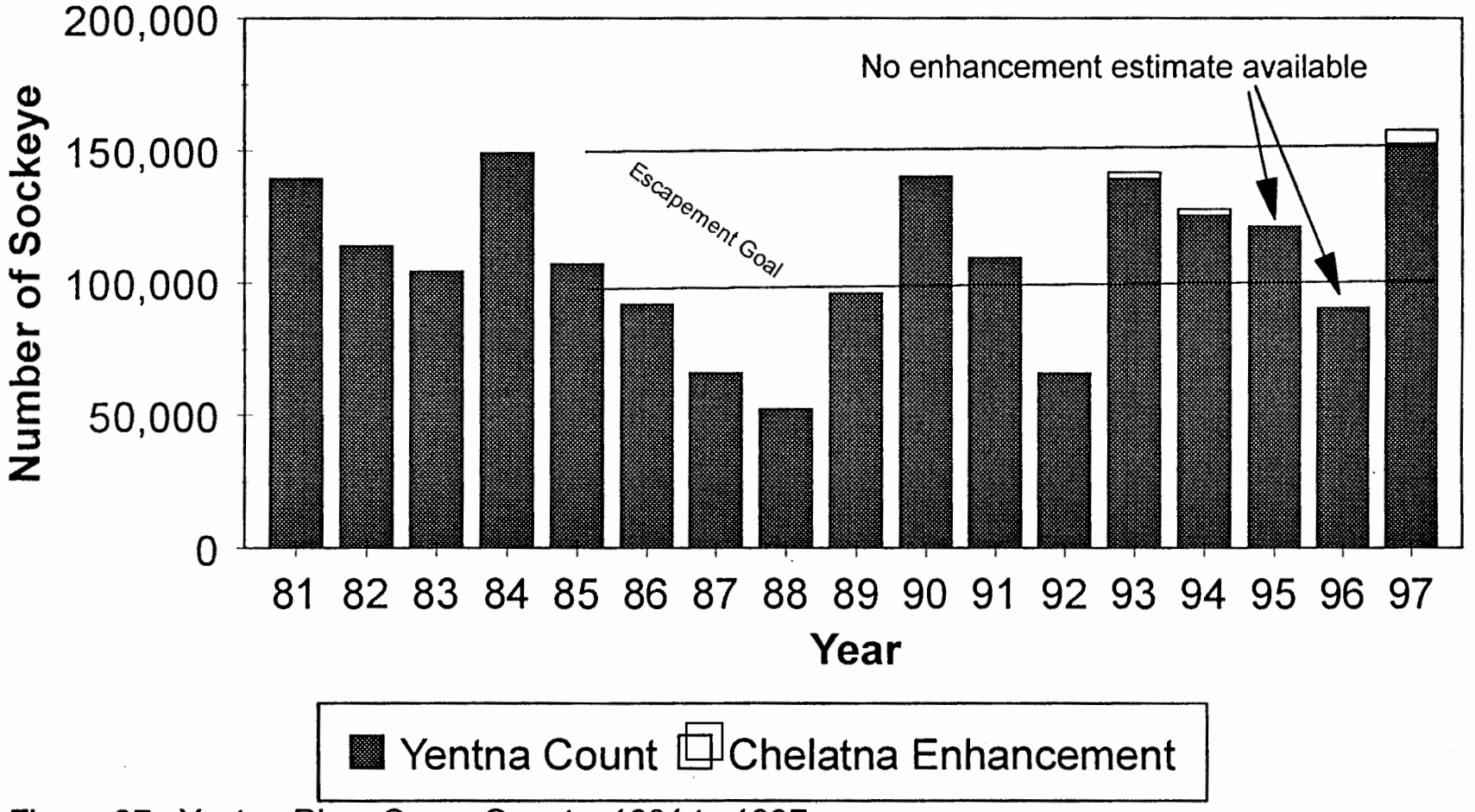


Figure 27. Yentna River Sonar Counts, 1981 to 1997.

APPENDICES FOR

NORTHERN DISTRICT SOCKEYE SALMON STOCK STATUS

1988

By

Jeff Fox

Regional Information Report 2A98-01

Alaska Department of Fish and Game
Commercial Fisheries Management and Development Division
333 Raspberry Road
Anchorage, Alaska 99518

January 1998

Appendix A.1. Escapement surveys of adult salmon for systems with sockeye in the Northern District of Upper Cook Inlet.

#	Location Code/ Stream Name/ USGS Map No.	Year	Date	Chinook	Sockeye	Coho	Chum	Pink	Comments	Data Source
1	McArthur River System									
	247-10-10080									
	McArthur River	Hist							Sockeye in West Creek (1961).	
	Kenai D-5									
	Tyonek A-7	1980	9/14	Present	Present	Present		5,000		Mike Joyce, Woodward and Clyde, Consultants
		1981	7/15		40					
		PC				Present				ADF&G, SF
	McArthur Canyon	1982			666	1,182	1	60		Mike Joyce, Woodward and Clyde, Consultants
	247-10-10080-2051-3029 -0010									
	Faro's Lake	1983	9/05		55				Aerial survey, fixed wing Post peak count	ADF&G, CF
	Tyonek A-6	1985	8/02		1,650				Aerial survey, helicop. includes 100 carcasses	ADF&G, CF
	247-10-10080-2020-3029									Mike Joyce, Woodward
	Stream 12.1	1982			16,711	2,000	4	8,499		& Clyde Consultants
	Tyonek A-6	1983	8/09		3,000					ADF&G, CF
					10,000					
		1983	8/12		5,250				Aerial survey, helicop., includes 2250 carcasses	ADF&G, CF
		1985	8/02		3,225	100			Aerial survey, helicop., includes 161 bear kills	ADF&G, CF
	247-10-10080-2020-3033 -4015									Mike Joyce, Woodward
	Stream 12.2	1982		22	6,085	46		1,566		& Clyde Consultants
	Tyonek A-6	1983	8/12		1,488				Aerial survey, helicop. includes 638 carcasses	ADF&G, CF
		1985	8/02		875				Aerial survey, helicop. includes 18 bear kills	ADF&G, CF
	247-10-10080-2020-3033									Mike Joyce, Woodward
	Stream 12.3	1982			2,512	89		4		& Clyde Consultants
	Tyonek A-6	1983	8/09		Present				No counts	
		1983	8/12		1,313				Aerial survey,helicop., includes 563 carcasses	ADF&G, CF
		1985	8/02		614				Aerial survey,helicop., includes 123 bear kills	
	247-10-10080-2020-4018									Mike Joyce, Woodward
	Stream 12.4	1982			2,328		1	18		& Clyde Consultants
	Tyonek A-6	1983	8/09		Present				No counts	
	247-10-10080-2020-3035									Mike Joyce, Woodward
	Stream 12.5	1982		0	0	0	0	3		& Clyde Consultants
	Tyonek A-6	1983	8/09		Present				No counts	
	247-10-10080-2042									
	Stream 13U	1982		1,633	1,213	32	23	5,402		Mike Joyce, Woodward
	Tyonek A-6	1983	8/09		40					& Clyde Consultants
		1985	8/02	3	73				Aerial survey, helicop.	ADF&G, CF
	247-10-10080-2020-3029 -2038									
	Stream 13X	1982		452	5,416	1,378		4,225		Mike Joyce, Woodward
	Tyonek A-6	1985	8/02	4					Aerial survey, helicop.	& Clyde Consultants
	Chakachatna River System	1982		529	78,580	7,328	949	28,040		
	Kenai D-5									
	Tyonek B-8									
	247-10-10080-2010-0010									
	Chakachamna L.	Hist							Max. count 590 sockeye (1955)	
	Tyonek A-8	1980	9/02			50				CIAA
		1981	9/14	Present	Present	Present	Present	5,000		Mike Joyce, Woodward & Clyde Consultants
	247-10-10080-2010-3058									
	Nigishlamna River	1980	9/02	0	0	0	0	0		CIAA
	Tyonek A-7									
	Tyonek B-8									
	247-10-10080-2010									
	Chulligan River	Hist							Max. count 2,000 sockeye (1952).	
	Kenai D-8									Mike Joyce, Woodward
	Tyonek A-8	1981	9/14		10,000					& Clyde Consultants
		PC		12	1,000					ADF&G, SF
		1982			18,000				Peak Aerial	
		1982			38,576				Area under curve estimate	M. J., W., & C. Consultants
		1983	9/05		6,725					ADF&G, CF
		1985	8/26		20,000				Aerial survey, helicop.	ADF&G, CF
		1985	9/21		5,050				Aerial survey, helicop., includes 550 carcasses.	ADF&G, CF
		1985							Total from area under the curve analysis = 26554	ADF&G, CF
		1987	8/27		5,000				Aerial, fixed wing.	ADF&G, CF

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#	Location Code/ Stream Name/ USGS Map No.	Year	Date	Chinook	Sockeye	Coho	Chum	Pink	Comments	Data Source
									excellent conditions	
		1987	9/06		9,390				Aerial, fixed wing, peak survey count	ADF&G, CF
		1989	9/14		4,905				Aerial, fixed wing Only side sloughs countable Carcasses strewn over bars indicating significant flooding. Count included 3430 carcasses.	ADF&G, CF
		1993	9/10		35				Surveyed lower 5mi. from C-207 and 1 mi. downstream from landing strip. Counted 17 fish on ground survey.	ADF&G,CF,Davis
		1997	8/23		15,600				Aerial fixed wing	ADF&G, CF
	247-10-10080-2010 -0020									
	Kenibuna Lake Tyonek A-8	Hist							Few sockeye observed (1952).	
	247-10-10080-2010 -3068									
	Igitna River	1982			2,781					M. J., W., & C. Consultants
	Tyonek A-8	1983	9/05		1,000				At confluence with	
	Lime Hills B-1	1983	9/12		1,100				Another River	ADF&G, CF
		1985	9/30		250				Aerial count, fixed wing	ADF&G, CF
									Total from area under the curve analysis = 2380	ADF&G, CF
		1987	8/27						Aerial, fixed wing, no count due to high turbid water.	ADF&G, CF
		1988	9/24		5,380				Aerial survey, fixed wing excellent survey conditions.	ADF&G, CF
	247-10-10080-2010 -3075									
	Neacola River	1981	9/14		Present					M. J., W., & C. Consultants
	Tyonek A-8	PC						Present		ADF&F, SF
	247-10-10080-2010									
	Chakachatna R. Kenai D-5 Tyonek B-8	1983	9/12		8,190					
	Chakachatna	1980	9/02		50	50				CIAA
	Canyon Sloughs	1982			392	608	121	279		M. J., W., & C. Consultants
	Chakachatna Bridge side channels and sloughs	1982			1,193	1,560	1,452	59		M. J., W., & C. Consultants
	Middle Chakachatna sloughs	1983	9/05		315		10			
		1983	9/12		388		11			
	247-10-10080-2010-3040									
	Straight Creek (Clear Fork Cr) Tyonek A-5 Tyonek A-6	1973		5						
		1975		9						
		1976		59						
		1977		24						
		1978		108						
		1981		126						
		1981	9/14		3,000		Present	Present		M. J., W., & C. Consultants
		1982		383						
		PC		100			Present	5,000		ADF&G, SF
		1982			203	76	152			M. J., W., & C. Consultants
	247-10-10080-2010-3040 -4010									
	Straight Creek clearwater trib. Tyonek A-5 Tyonek A-6 tributary C1	1982		1,422	254	172		7,925		M. J., W., & C. Consultants
	247-10-10080-2020									
	Nosuka Slough Kenai D-5	Hist			5,000		Present	Present		ADF&G, SF
		1981							Large numbers of fry	M. J., W., & C. Consultants
2	247-10-10070									
	Middle River	Hist							A few coho reported(1961)	
	Tyonek A-5	1980	9/02	0	0	0	0	0		CIAA
	Kenai D-5	1981	9/14	Present		Present				Mike Joyce, Woodward and Clyde, Consultants
		PC				Present		Present		ADF&G, SF
3	247-20-10010									
	Chuitna River Tyonek A-4 Tyonek A-5	Hist							Max. count 17 chinook, 40 coho, 20 chums, 6-700 pinks (1958).	
		1973		149						
		1974		171						
		1975		629						
		1976		1,984						
		1977		1,981						
		1978		1,130						

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#	Location Code/ Stream Name/ USGS Map No.	Year	Date	Chinook	Sockeye	Coho	Chum	Pink	Comments	Data Source
		1979		1,246						
		1981	7/14	165						Ron Dugan, Dowling Engineers
		1981	7/16	40						CIAA
		1981	8/03	375						Ron Dugan, Dowling Engineers
		1981	8/04	35		2				Ron Dugan, Dowling Engineers
		1981	8/05	Present		4	1	1		Ron Dugan, Dowling Engineers
		1981	8/06	6		5	1			Ron Dugan, Dowling Engineers
		1981	8/24	1		80	22			Ron Dugan, Dowling Engineers
		1981	8/25			9				Ron Dugan, Dowling Engineers
		1981	9/24			269				Ron Dugan, Dowling Engineers
		1981	9/25			27				Ron Dugan, Dowling Engineers
		1981	9/26			12				Ron Dugan, Dowling Engineers
		1981	9/27			63				Ron Dugan, Dowling Engineers
		1981	9/28			23				Ron Dugan, Dowling Engineers
		1981		3,634		1,085	30	20,410		
		1981		1,362						ADF&G,SF,Sweet(1993)Pal.
		1982		3,438						ADF&G, SF, Bartlett (1991)
		PC		Present		1,000	Present			ADF&G, SF
		1983		5,750		1,600				Environmental Research and
				6,500		1,800				Technology (1984)
		1983	7/13		400				sock. observed downstream	
		1983		4,043						ADF&G, SF, Bartlett (1991)
		1984	6/28	1,050	Present				Aerial survey, helicop.,no positive ID	CIAA
		1984		2,845						ADF&G, SF, Bartlett (1991)
		1985		1,600						ADF&G, SF, Bartlett (1991)
		1986		3,946						ADF&G, SF, Bartlett (1991)
		1987		na						ADF&G, SF, Bartlett (1991)
		1988		3,024						ADF&G, SF, Bartlett (1991)
		1989		990						ADF&G, SF, Bartlett (1991)
		1990		480						ADF&G, SF, Bartlett (1991)
		1991		537						ADF&G, SF, Bartlett (1991)
		1992		1,337						ADF&G,SF,Sweet(1993)Pal.
		1993		2,085						ADF&G,SF,Sweet(1993)Pal.
		1994		1,012						ADF&G,SF,Palmer
		1995		1,162						ADF&G,SF,Palmer
		1996		1,343						ADF&G,SF,Palmer, 96
	247-20-10010-2052									
	Chuit Creek	1981	7/26	35					Aerial survey, helicop.,	CIAA
	Tyonek A-5								fish observed were jacks	
		1984	7/23	50						CIAA
	247-20-10010-2020									
	Lone Creek	1983	7/13	50						CIAA
	Tyonek A-4	1983	7/25	300					Aerial survey, helicop.	CIAA
	247-20-10020									
	Indian Creek	Hist							Sockeye before 1932, coho	
	Tyonek A-4								and pinks present (1961)	
4	247-20-10002									
	Three Mile Creek	1980	6/27	0	0	0	0	0		CIAA
	Tyonek A-3	PC			1,000			5,000		ADF&G, SF
	Tyonek A-4	1983	7/25		Present				Aerial survey, helicop.	CIAA
		1983		250						ADF&G, CF
		1984	7/23		20,000				Aerial survey, helicop.	CIAA
		1984	7/31		Present				Aerial survey, helicop.	CIAA
		1984	8/02	4	850				Ground survey	CIAA
		1985	7/31		150				Aerial survey, helicop.	CIAA
		1985	8/03		1,300				Aerial survey, helicop.	CIAA
		1985	8/5		25				Aerial survey, helicop. poor conditions	
		1988	8/13		400+				Aerial survey, helicop.	CIAA
		1995	8/24		6,000				Aerial survey, helicop.	CIAA
		1995	8/31		6,000				Aerial survey, helicop.	CIAA
		1996	8/22		200				Aerial survey, helicop.	CIAA
		1997	8/14	6	6	0	150+	0	Foot survey, 1 to 1.5 mi. downstream from outlet of lake. Some coho also between lks.	ADF&G, CF
5	Beluga System									
	247-30-10090-0010									
	Beluga Lake	Hist							Max. count 50 sock.(1957);	
	Tyonek B-4								large nos. chin. and	
									coho (1947)	
		1970	9/01		10					
	247-30-10090									
	Beluga River	Hist							No fish obser. (1953-57)	
	Tyonek A-3	1978	8/24			520			1,500 Upper River	
	Tyonek B-4	1980	10/30						Large numbers of salmon,	CIAA
									species unknown	
	247-30-10090-2105									
	Bishop Creek	1976		12						
	Tyonek B-4	1977		468						
	Tyonek B-5	1979		30						
		1980	6/27	0	0	0	0	0		CIAA
		1981		174						
		1981	7/16	10					Aerial survey, helicop.(partial survey)	CIAA
		PC			Present			Present	estimate from several years observations	ADF&G, SF
		1983		7					Aerial survey, helicop.	CIAA
		1984	7/15	Present					Aerial survey, helo. fish noted as few pairs	CIAA
		1985	8/27	0	0	0	0	0	Aerial survey, helicop.	CIAA
		1987	8/02						Aerial survey, helo.,salmon present, no ID	CIAA
	247-30-10090-2105									

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#	Location Code/ Stream Name/ USGS Map No.	Year	Date	Chinook	Sockeye	Coho	Chum	Pink	Comments	Data Source
	-0010									
	Bishop Lake	Hist							Max. count 81 KS (1964)	
	Tyonek B-4	1981	7/16	0	0	0	0			CIAA
	No # in AWC									
	Cappa Creek	Hist							Max. count 2000 coho (1950); 5 pink, 8 chum (1958)	
	(Trib.of Chuchantna R. between Cappa Glacier and headwaters of Bishop Creek)	1980	6/27	0	0	0	0	0		CIAA
		1985	8/27	0	0	0	0	0	Aerial survey, lower 2-3 miles	CIAA
	Tyonek B-5									
	No # in AWC								3-5 miles	
	Chuchantna R.	Hist							No fish observed	
	Tyonek B-5	1980	6/27	0	0	0	0			CIAA
		1981	7/16	0	0	0	0			CIAA
		1984	7/31	0	0	0	0	0	Aerial survey, helicop.	CIAA
		1985	8/27	0	0	0	0		Aerial survey, helicop., lower 3-5 miles	CIAA
	247-30-10090-2150									
	Coal Creek								Note: Tyonik B5	
	Tyonek B-5	Hist							Max. count 2000 sock.	
	Tyonek C-5								(1950); 25 pink, 25 chum (1965), 6 coho (1953)	
		1972	8/29		1,250				Aerial survey, fixed wing, peak survey ct.	ADF&G, CF
		1973		31						
		1975	8/29	1	0	0	0	0	Aerial survey, entire stream to headwaters	ADF&G, CF
		1976	8/17	0	0	0	0	0	Aerial survey	
		1976	8/26	0	0	0	0	0	Aerial survey, fixed wing	
		1976	9/14	0	0	0	0	0	Aerial survey	
		1976		17						
		1977	8/25		45				Aerial survey	ADF&G, CF
		1977	9/01		100				Aerial survey	ADF&G, CF
		1978	8/09		2,200				Entire system blocked by beaver dams,	ADF&G, CF
		1978	8/24		75				fish in creek to Coal Creek Lake	ADF&G, CF
		1978		1,551	2,313				Peak survey count	ADF&G, CF
		1979	8/22	0	0	0	0	0		ADF&G, CF
		1979	9/19	0	0	0	0	0		ADF&G, CF
		1979		178						CIAA
		1979	8/22	0	0	0	0	0		CIAA
		1980	6/29	0	0	0	0	0		CIAA
		1980	9/11	0	0	0	0	0		CIAA
		1981		223						CIAA
		PC				Present		Present		ADF&G, SF
		1982	8/23	0	0	0	0	0	Aerial survey, peak count	ADF&G, CF
		1983	8/27	0	0	0	0	0		ADF&G, CF
		1983	7/12		120				Aerial count helicop., 100 fish at mouth of Coal Cr. remainder at outlet from Coal Creek Lake	CIAA
		1984	7/15	Present					Aerial survey, helo. observations noted as numerous sm. groups King Salmon above confluence West Fork Coal Creek of king salmon above	CIAA
		1984	7/23	400					Aerial survey, helicop. fish between outlet of Coal Cr. Lk. & confluence W. F. Coal Cr. fluence of W.F. Coal Cr.	
		1984	9/04	0	0	0	0	0	Aerial survey, fixed wing	ADF&G, CF
		1985	8/03	2,500	10				Aerial survey, helo. est 2000 mouth Coal Cr rest in Coal Cr to outlet stream of Coal Creek Lake.	CIAA
		1985	8/23	0	0	0	0	0		ADF&G, CF
		1986	8/5		30				Aerial survey, heli.	
		1987	8/20		50				Aerial count, fixed wing, fish at confluence Coal Cr. and Beluga Lake	
		1992	8/18	3	1,000					CIAA
		1994	8/18		130					CIAA
		1995		221						ADF&G,SF,Palmer,96
		1996		424						ADF&G,SF,Palmer,97
		1996	8/15		500					CIAA
		1997	8/28		500					CIAA
	247-30-10090-3121									
	West Fork Coal Creek									
	Tyonek B-5	1975	8/29	0	0	0	0	0	Aerial survey, fixed wing	ADF&G, CF
	Tyonek C-5	1979	9/19		500				Aerial survey, includes 100 carcasses	ADF&G, CF
		1980	8/22		200				Aerial survey	
		1980	9/11		600				Aerial survey	ADF&G, CF
		1982	8/23		12,000				Aereal survey, peak count, 10% morts	ADF&G, CF
		1983	8/27		2,350					ADF&G, CF
		1984	8/28		9,455				7% carcasses	ADF&G, CF
		1984	9/04		5,535				24% carcasses	ADF&G, CF
		1985	8/03		500				Aerial count, helicop.	CIAA
		1985	8/23		4,500				Aerial count, includes 1 carcass	ADF&G, CF
		1986	8/5		73				Aerial count, helicop.	
		1987	8/20		4,140				Aerial count, fixed wing	ADF&G, CF
		1989	8/21		12,350				Aerial count, fixed wing inc. 600 carcasses	ADF&G, CF
		1997	8/23		7,500				Aerial count, fixed wing	ADF&G, CF
	247-30-10090-3110-0010									
	Coal Creek Lake	Hist							Max. count < 300 sockeye (1958-1959)	
	Tyonek B-5									
		1972	9/01		1,700	150			Includes W. F. Coal Creek	
		1973	9/14	0	0	0	0	0	Aerial survey, fixed wing	ADF&G, CF
		1974	8/26	0	0	0	0	0	Aerial survey, fixed wing	ADF&G, CF

Appendix A.1. Escapement surveys of adult salmon for systems with sockeye in the Northern District of Upper Cook Inlet.

#	Location Code/ Stream Name/ USGS Map No.	Year	Date	Chinook	Sockeye	Coho	Chum	Pink	Comments	Data Source
		1974	9/09	0	0	0	0	0	Aerial survey, fixed wing	ADF&G, CF
		1974	10/03	0	0	0	0	0	Aerial survey, fixed wing	ADF&G, CF
		1975	8/29	0	0	0	0	0	Aerial survey, fixed wing	ADF&G, CF
		1976	8/17	0	0	0	0	0	Aerial survey, fixed wing	
		1976	8/26	0	0	0	0	0	Aerial survey, fixed wing	
		1977	8/25		2				Aerial survey, fixed wing	ADF&G, CF
		1977			51				Aerial survey, peak count	
		1978	8/09		75				Peak survey count, ent. to lake blocked by beaver dam	
		1979	9/22	0	0	0	0	0	Aerial count, fixed wing	ADF&G, CF
		1979	9/19		0	5			Aerial count, fixed wing	ADF&G, CF
		1979	8/22	0	0	0	0	0	Aerial count, fixed wing	ADF&G, CF
		1980	8/22		100				Aerial count, fixed wing	ADF&G, CF
		1980	9/11		100				Aerial count, fixed wing	ADF&G, CF
		1981	9/04		1,100				Includes W. F. Coal Creek	
		1982	8/23		240				Aerial count, fixed wing	ADF&G, CF
		1982	8/23		240				Aerial count, fixed wing	ADF&G, CF
		1983	8/27		100				Aerial count, fixed wing, 1 carcass	ADF&G, CF
		1984	9/04		41				Aerial count, fixed wing, in Coal Cr. Lake	ADF&G, CF
		1985	8/23		500				Aerial count, fixed wing	ADF&G, CF
		1986	8/5		100-200				Aerial count helo	
		1987	8/02	Present					Aerial count	CIAA
		1997	8/23		325				Aerial count, fixed wing	ADF&G, CF
	247-30-10090-2010									
	Drill Creek	1976		11						
	Tyonek B-4	1978		77						
		1979		11						
		1980	6/27	0	0	0	0	0		CIAA
		1982		697						
		PC			1,000			5,000		ADF&G, SF
		1983		1,000						ADF&G, CF
		1984	7/23	8,000					Aerial survey, helicop.	CIAA
		1985	8/03	1,400					Aerial survey, helicop.	CIAA
		1987	8/02	1,200					Aerial survey, helicop.	CIAA
	247-30-10090-2130									
	Lone King Creek	Hist							Max. count 2000 sock. (1950); chum, pink, chin.	
	Tyonek B-5								observed w. end of lk.	
		PC			5,000			Present		ADF&G, SF
		1981	7/15	25					Aerial count, helicop.	CIAA
	Mouth Creek	PC		Present				Present		ADF&G, SF
	247-30-10090-2020									
	Olson Creek	Hist							Max. count 31 chin.(1963)	
	Tyonek A-3	1973		2					34 sockeye (1954),thousands of pinks	ADF&G, SF
	Tyonek B-4	1974	7/13	Present						
		1978	9/24		520			1,500		ADF&G, CF
		1983	7/25	30					Aerial survey, helicop.poor vis due to trees	CIAA
		1983	8/27					12	Aerial survey, helicop.,lower 2-3 miles	CIAA
		1984	7/24	6					Aerial survey, helicop.fish at confluence other chin. present in stream not counted	CIAA
	247-30-10090-2010									
	Pretty Creek	Hist							Max. count 10 chinook.	
	Tyonek B-3								1153 pinks (1958).	
		1980	6/27	0	0	0	0	0		CIAA
		PC		100				1,000		ADF&G, SF
		1983	7/25	6						CIAA
		1985	8/25	0	0	0	0	0	Aerial survey, helicop. lower 2-3 miles surveyed	CIAA
	247-30-10090-2040									
	Coffee Creek	1980	10/30	0	0	0	0	0	Aerial survey, helo. poor survey conditions	CIAA
	Tyonek B-4	1985	8/25	0	0	0	0	0	Aerial survey, helo.lower 2-3 m surveyed	CIAA
	247-30-10090-3015									
	Scarp Creek	PC		1,000	Present					ADF&G, SF
	Tyonek A-4	1982		184						
	Tyonek B-4	1997	8/23			1,500			Aerial fixed wing	ADF&G,CF
	247-30-10090-3015 -4012									
	West Fork	PC			1,000					ADF&G, SF
	Scarp Creek									
	Tyonek B-4									
	247-30-10090-2130									
	Barren Creek								Unnamed on maps, enters Beluga Lk. in NE corner	
	Tyonek B-4								between Coal Cr. && Drill Cr.	
6	247-41-10200									
	Susitna River									
	Susitna	1970			38,000					ADF&G (1982)
	Station	1972			113,000					ADF&G (1982)
	(system-wide	1973		15,000	40,000				Chinook est. aerial survey, inc. sport. har.	ADF&G (1982)
		1974		15,000	70,000				Chinook est. aerial survey, inc. sport. har.	ADF&G (1982)
		1975		11,500	108,000				Chinook est. aerial survey, inc. sport. har.	ADF&G (1982)
		1976		71,200	111,000			933,000	Esc.-pop. est.; king est. aerial survey includes sport fish harvest	ADF&G (1982)
		1977		118,100	238,000	50,000	105,000	1,490,000	Esc.-pop. est.; king est. aerial survey includes sport fish harvest	ADF&G (1982)
		1978		81,100	94,000	100,300	145,000	2,478,100	SS sonar Esc. count; chinook est. aerial sur. includes sport harvest	ADF&G (1982)

Appendix A.1. Escapement surveys of adult salmon for systems with sockeye in the Northern District of Upper Cook Inlet.

#	Location Code/ Stream Name/ USGS Map No.	Year	Date	Chinook	Sockeye	Coho	Chum	Pink	Comments	Data Source
		1979		77,200	157,000	37,000	49,000	125,000	SS sonar Esc. count; chinook estimate from aerial surveys, includes sport harvest	Tarbox et al. (1983)
		1980	7/01-8/29		191,000	42,895	7,939	2,047,000	Side Scan Sonar Escapement count	Tarbox et al. (1983)
		1981	6/27-9/02		340,232	33,470	46,461	113,349	SS Sonar Esc. count, aerial ct. plus sport	ADF&G (1981)
		1981		65,000					fish harvest (60-70,000) estimate	ADF&G (1982)
		1982	7/01-9/05		215,856				Escapement count (sonar-apportioned) from Yentna Sta. and Susitna Sta. east bank	King and Tarbox (1983)
		1983			112,314				Side Scan Sonar Escapement count	King and Tarbox (1984)
		1984	7/01-8/08	1,457	45,105	13,413	26,721	377,425	SS sonar Escapement count, east bank only	King and Tarbox (1987)
	Sunshine Station	1976	6/21-8/13	749	2,296	1,307	338	19,230	Fishwheel catch, Relative abundance	Friese (1976b)
		1981	6/23-9/15		89,906	22,793	59,630	72,945	Side Scan Sonar Escapement count	ADF&G (1981)
		1981	6/23-9/15		133,489	19,841	262,851	49,501	Peterson pop. est., Mark/recapture	ADF&G (1981)
		1982	6/04-10/01	52,900	151,500	45,700	430,400	443,200	Peterson pop. est., Mark/recapture	ADF&G (1983a)
		1983	6/03-9/11	90,100	71,500	15,200	265,300	40,500	Peterson pop. est., Mark/recapture	Barrett et al. (1984)
		1984	6/04-9/10	121,700	130,071	94,702	764,958	1,017,022	Peterson pop. est., Mark/recapture	Barrett et al. (1985)
		1989		88	1,602	24	752	904	FW catch, adj. for 24 hrs.	ADF&G, CF
		1990	7/12-8/01	53	1,792	54	933	2,106	FW catch, adj. for 24 hrs.	ADF&G, CF
		1992	7/14-8/06	50	1,783	560	2,701	3,578	FW catch, adj. for 24 hrs.	ADF&G, CF
	Talkeetna Station	1974	7/23-9/11		1,008		24,286	5,252	Peterson pop. est., Mark/recapture	Barrett (1974)
		1981	6/22-9/15		3,464	3,522	10,036	2,529	Side Scan Sonar Escapement count	ADF&G (1981)
		1981	6/22-9/15		4,309	3,306	20,835	2,335	Peterson pop. est., Mark/recapture	ADF&G (1981)
		1982	6/05-9/14	10,900	3,100	5,100	49,100	73,000	Peterson pop. est., Mark/recapture	ADF&G (1983a)
		1983	6/07-9/12	14,400	4,200	2,400	50,400	9,500	Peterson pop. est., Mark/recapture	Barrett et al. (1984)
		1984	6/03-9/11	24,800	13,050	11,847	98,236	177,851	Peterson pop. est., Mark/recapture	Barrett et al. (1985)
	Curry Station	1981	6/15-9/21		2,804	1,146	13,068	1,041	Peterson pop. est., Mark/recapture	ADF&G (1981)
		1982	6/09-9/18	11,300	1,300	2,400	29,400	58,800	Peterson pop. est., Mark/recapture	ADF&G (1983a)
		1983	6/09-9/14	9,600	1,900	800	21,100	5,500	Peterson pop. est., Mark/recapture	Barrett et al. (1984)
		1984	6/09-9/14	18,000	3,593	2,162	49,278	116,858	Peterson pop. est., Mark/recapture	Barrett et al. (1985)
	Flathorn Station	1984	6/29-9/03		605,833	190,061	812,694	3,629,857	Peterson pop. est., Mark/recapture	Barrett et al. (1985)
	247-41-10200 -2015 Alexander Creek Tyonek B-2 Tyonek B-3	Hist							Max. count 1,368 chinook (1953), sockeye present (1964), 100,000 pinks (1964), 500 chum (1963)	
		1958	5/29	1					Suspect this was an aerial count	Kubik (1964)
		1961	7/11	0					Suspect this was an aerial count	Kubik (1964)
		1962	7/23	19					Aerial count	Kubik (1963)
		1963	8/16	750					Aerial count	Kubik (1964)
		1964	7/29	205					Boat survey	Kubik (1965)
		1965	7/30	400					Boat survey	Kubik (1966)
		1965	7/30	416					Boat survey, Includes Sucker Creek	Kubik (1966)
		1966		197					Aerial count	Kubik (1967)
		1966		248					Aerial count, Includes Sucker Creek	Kubik (1967)
		1966		300					Aerial count, Estimate of total escapement	Kubik (1967)
		1967		354					Aerial count	Kubik (1968)
		1967		388					Aerial count, Includes Sucker Creek	Kubik (1968)
		1967		500					Aerial count, Estimate of total escapement	Kubik (1968)
		1968		563					Aerial count	Kubik (1969)
		1968		727					Aerial count, Includes Sucker Creek	Kubik (1969)
		1969		588					Aerial count	Kubik (1970)
		1969		735					Aerial count, Includes Sucker Creek	Kubik (1970)
		1969		30					Poor observing - water colored	Stewart & Flagg (1969)
		1970		420					Aerial count	Kubik (1971)
		1970		562					Aerial count, Includes Sucker Creek	Kubik (1971)
		1970		491						
		1970	7/26	280					2,720 sockeye and coho	ADF&G (1982)
		1972		103					Aerial count	Kubik (1973)
		1972		202					Aerial-grd. survey Includes Sucker Creek	Kubik & Trent (1974)
		1973		875					Ground survey	Kubik & Trent (1974)
		1974		2,193					Aerial count	Kubik & Chlupach (75)
		1975		1,878					Aerial count	Kubik & Riis (1976)
		1976		5,412					Aerial count	Kubik & Wadman (77)
		1977		13,385					Aerial count	Kubik & Wadman (78)
		1977	7/26	2,504						ADF&G (1982)
		1978		5,854					Aerial count	Kubik & Wadman (79)
		1979		6,215						Bartlett, SF, Palmer (91)
		1979		6,215					Aerial count	Kubik & Delaney (80)
		1981	7/29	588					Aerial ct. helo Sucker Creek to Lake, poor	ADF&G (1981)
		1982			5,000			250,000	Max. abundance est.from sev. yrs. obser.	ADF&G (1982)
		1982		2,546					Aerial count	Delaney & Hepler (83)
		1982		4,798						ADF&G, CF
		1982	7/31	1,687					Aerial count, helo, mouth to Lake, good	ADF&G (1983a)
		1983	7/19	3,755					Aerial count, helo, mouth to Lake, good	Barrett et al. (1984)
		1984	7/20	4,620					Aerial count, helicopter, good	Barrett et al. (1985)
		1985		6241	2					King and Tarbox (1986)
		1986		5,225					Aerial	King and Tarbox (1988)
		1987		2,152						Bartlett, SF, Palmer (91)
		1988		6,237						Bartlett, SF, Palmer (91)
		1989		3,497					Aerial count, rotary wing	ADF&G, SF, Engle
		1989		4,519					Chinook sport harvest	ADF&G, SF, Engle
		1990		2,596						ADF&G, SF, Engle
		1991		2,727						ADF&G, SF, Engle (91)
		1992		3,710						ADF&G, SF, Whitmore
		1993		2,763					Esc. index count	ADF&G, SF, (Pal., 93)
		1994		1,514						ADF&G, SF, Palmer
		1995		2,090						ADF&G, SF, Palmer
		1996		2,319						ADF&G, SF, Palmer, 96
	247-41-10200 -2015-0010									

Appendix A.1. Escapement surveys of adult salmon for systems with sockeye in the Northern District of Upper Cook Inlet.

#	Location Code/ Stream Name/ USGS Map No.	Year	Date	Chinook	Sockeye	Coho	Chum	Pink	Comments	Data Source
	Alexander Lake Tyonek D-3									
	247-41-10200 -2015-3010 Deep Creek Tyonek D-3									
	247-41-10200 -2015-3017 Granite Creek Tyonek D-3	1984	7/26	0	0	0	0	0	Aereal survey, helicop.	CIAA
	247-41-10200 -2015-3025 Fox Creek Tyonek D-3									
	247-41-10200 -2015-3025 Trail Creek Tyonek C-2									
	247-41-10200 -2015-3025-4011 Tyonek C-2									
	247-41-10200 -2015-3025-4015 Tyonek C-2									
	247-41-10200 -2015-3025-4035 Tyonek C-2									
	247-41-10200 -2015-3035 Lower Sucker Creek Tyonek C-2 Tyonek C-3	Hist							Max count 20 chinook (1964);	
		1963	8/14	15					Aerial count	Kubik (1964)
		1965	7/29	16					Ground survey	Kubik (1966)
		1966		51					Ground survey	Kubik (1967)
		1967		34					Aerial count	Kubik (1973)
		1969		75					Ground survey	Kubik (1973)
		1970		71					Ground survey	Kubik (1973)
		1972		39					Aerial count	Kubik (1973)
		1981	7/29	268					Aerial count, helicopter, good	ADF&G (1981)
		1982	7/28	322					Aerial count, helicopter, good	ADF&G (1983a)
		1983	7/19	397					Aerial count, helicopter, good	Barrett et al. (1984)
		1983	8/14	800					Aerial sur.,helo, Fish obser. called red sal.	CIAA
	247-41-10200 -2015-3035-4019 Sucker Lake Tyonek C-3									
	247-41-10200 -2015-3035-4019 Wolverine Creek Tyonek C-3	Hist							1,000,000 pinks (1966) Max. count 14 chinook (1964)	
		1964	8/05	14					Aerial count	Kubik (1965)
		1981	7/24	243					Aerial count, helicopter, good	ADF&G (1981)
		1982	7/28	537					Aerial count, helicopter, good	ADF&G (1983a)
		1983	7/19	491					Aerial count, helicopter, good	Barrett et al. (1984)
		1984	7/15	3,000					Aerial survey, helicop.	CIAA
	247-41-10200 -2015-3035-4223 Upper Sucker Creek Tyonek C-3									
	247-41-10200 -2015-3035-4225 Tyonek C-3									
	247-41-10200 -2015-3035-4225 -0010 Tyonek C-3									
	247-41-10200 -2015-3040 Clear Creek Tyonek D-3									
	247-41-10200 -2015-3117 Bear Creek Tyonek C-3									
	247-41-10200 -2015-3117-4208 Texas Creek Tyonek C-3									
	247-41-10200 -2020									

Appendix A.1. Escapement surveys of adult salmon for systems with sockeye in the Northern District of Upper Cook Inlet.

#	Location Code/ Stream Name/ USGS Map No.	Year	Date	Chinook	Sockeye	Coho	Chum	Pink	Comments	Data Source
	Fish Creek	1958	9/19	3					Suspect ground survey or aerial count	Kubik (1964)
	(Flat Horn Lake)	1961	6/03	0					Suspect ground survey or aerial count	Kubik (1964)
	Tyonek B-2	1984	9/10	0	0	0	0	0	Aerial count, helicopter	Barrett et al. (1985)
	Tyonek C-1								Poor, TRM 0.0	
		1984	9/20	0	0	0	0	0	Aerial count, helicopter; Fair, TRM 0.0	Barrett et al. (1985)
		1984	9/27	0	0	0	0	0	Aerial count, helicopter; Fair, TRM 0.0	Barrett et al. (1985)
		1984	10/06	0	0	0	0	0	Aerial count, helicopter; Good, TRM 0.0	Barrett et al. (1985)
		1984	7/31	0	0	0	0	0	Ground survey - Poor; TRM 0.0	Barrett et al. (1985)
		1984	8/08	0	0	0	0	0	Ground survey - Poor; TRM 0.0	Barrett et al. (1985)
		1984	8/17	0	69	0	0	0	Ground survey - Fair/Good; TRM 0.0	Barrett et al. (1985)
		1984	8/25	0	0	0	0	0	Ground survey - Poor; TRM 0.0	Barrett et al. (1985)
	247-41-10200									
	-2020-0010									
	Flat Horn Lake									
	Tyonek B-2									
	247-41-10200									
	-2020-0015									
	Red Shirt Lake	Hist							Max. counts, 2,600 sockeye (1952);	
	Tyonek C-1								380 coho (1952)	
		1972	8/29		160	100			Aerial count, Super Cub	Barrett (1973a)
		1972			200				Includes Role Jo Creek	Tarbox & Sanders (1980)
		1973	8/17		35				Aerial count, Super Cub	Barrett (1973a)
		1973	9/14		47				Aerial count, Super Cub	Barrett (1973a)
		1974	8/26		0	0	0	0	Aerial count, Super Cub	Barrett (1975a)
		1974	9/09		0	0	0	0	Aerial count, Super Cub	Barrett (1975a)
		1974	10/03		1				Aerial count, Super Cub	Barrett (1975a)
		1974			160				Peak survey count	ADF&G (1982)
		1975	8/29		135				Aerial count, Super Cub	Friese (1976a)
		1975			159				Includes Role Jo Creek	Tarbox & Sanders (1980)
		1976	8/17		66					ADF&G, CF
		1976	8/26		92					ADF&G, CF
		1976	9/14		117					ADF&G, CF
		1976	9/16		130					ADF&G, CF
		1976			180				Aerial count, Super Cub, Peak survey count	Friese (1976b)
		1976			215				Aerial count, Includes Role Jo Creek	Tarbox & Sanders (1980)
		1977	8/24		43				Aerial count, Includes Role Jo Creek	Tarbox & Sanders (1980)
		1977	9/01		4					ADF&G (1982)
		1978	8/29		13				Aerial count, Includes Role Jo Creek	Waltemyer et al. (1980)
		1979	9/07		645				Aerial count	Tarbox & Sanders (1980)
		1979	9/07			92				ADF&G, CF
		1980	9/11		650				Aerial count, Includes Role Jo Creek	Tarbox & Sanders (1980)
		1981	8/25		600					ADF&G (1982)
		1981			505				Aerial count, Includes Role Jo Creek	Tarbox et al. (1983)
		1981	8/23		5,900					ADF&G, CF
		1982			100		1,000			ADF&G, CF
		1983	7/29		1,000				Aerial count, helicopter. Fish observed in Creek, between Red Shirt Lk. and Flathorn Lk.	CIAA
		1984	8/26		776					ADF&G, CF
		1984	8/30		1,400					ADF&G, CF
		1985							No survey conducted	King and Tarbox (1986)
		1986			5,300				Aerial count, Includes Role Jo Creek	King and Tarbox (1988)
		1992			10				Aerial count, Includes Role Jo Creek	ADF&G, CF
		1993	9/15		216				No fish in Role Jo Cr., grd. sur., genetics cr	ADF&G, CF, Soldotna
	247-41-10200									
	-2020-0020									
	Tyonek C-1									
	247-41-10200									
	-2020-0030									
	Tyonek C-1									
	247-41-10200									
	-2020-0040									
	Tyonek C-1									
	247-41-10200									
	-2020-3031									
	Tyonek B-2									
	247-41-10200									
	-2020-3031-4016									
	Tyonek B-2									
	247-41-10200									
	-2020-3041									
	Tyonek B-2									
	Tyonek C-1									
	247-41-10200									
	-2020-3041-0020									
	Tyonek C-1									
	247-41-10200									
	-2020-3110									
	Tyonek C-1									
	247-41-10200									
	-2020-3110-0010									
	Cow Lake									
	Tyonek C-1									
	247-41-10200									
	-2020-3130									

Note - TYONEK C-1

Appendix A.1. Escapement surveys of adult salmon for systems with sockeye in the Northern District of Upper Cook Inlet.

#	Location Code/ Stream Name/ USGS Map No.	Year	Date	Chinook	Sockeye	Coho	Chum	Pink	Comments	Data Source
	Rolo Jo Creek *	Hist							Sockeye and coho present	
	Tyonek C-1	1972	8/16		40				Aerial count, Super Cub	Barrett (1973a)
		1972	8/29		160				Aerial count, Super Cub	Barrett (1973a)
		1973	8/17	0	0	0	0	0	Aerial count, Super Cub	Barrett (1973a)
		1973	9/04		47				Aerial count, Super Cub	Barrett (1973a)
		1974		0	0	0	0	0	Aerial count, Super Cub	Barrett (1975a)
		1975	8/29		24				Aerial count, Super Cub	Friese (1976a)
		1976	9/26		25				Aerial count, Super Cub	Friese (1976b)
		1976			35				Aerial count, Super Cub, Peak stir. count	Friese (1976b)
		1977	8/24		43					ADF&G (1982)
		1977	9/01		4					ADF&G (1982)
		1977			28				Aerial count	Namtvedt et al. (1979)
		1978			0				Aerial count	Waltemyer et al. (1980)
		1983	8/23		450					ADF&G, CF
		1984	8/26		450					ADF&G, CF
		1984	8/30		240					ADF&G, CF
		1993	9/15		0				Ground survey	ADF&G, CF, Soldotna
	247-41-10200 -2020-3130-0020 Lynx Lake Tyonek C-1									
	247-41-10200 -2020-3130-4020 Tyonek C-1 Anchorage C-8									
	247-41-10200 -2020-3150 Tyonek C-1									
	247-41-10200 -2020-3150-0010 Tyonek C-1									
	247-41-10200 -2020-3185 Tyonek C-1									
	247-41-10200 -2020-3185-0010 Tyonek C-1									
	247-41-10200 -2020-3195 Tyonek C-1									
	247-41-10200 -2020-3195-0010 Tyonek C-1									
	247-41-10200 -2030 Tyonek B-2									
	247-41-10200 -2043 Anderson Creek Tyonek C-2									
	247-41-10200 -2050 Tyonek C-2									
	247-41-10200 -2060 Tyonek C-1									
	247-41-10200 -2070 Tyonek C-1									
	247-41-10200 -2075 Tyonek C-1									
	247-41-10200 -2081 Deshka River -Kroto Creek Tyonek C-1 Talkeetna B-2	Hist							Max. count chinook 3,000 (1954); 86 sockeye (1950); 300,000 pinks (1954)	
		1958	5/29		3				Suspected ground survey or aerial	Kubik (1964)
		1961	6/06		18				Ground survey, Peak count	Stefanich (1962)
		1962	8/03-8/11		998				Ground survey	Kubik (1963)
		1963	7/03		131				Aerial count, Peak	Kubik (1964)
		1964	8/17		311				Boat survey, West Fork only	Kubik (1965)
		1964			2,422				Boat survey, Entire Deshka River System - Chujik, Trapper, West Fork, and Moose	Kubik (1965)
		1965	7/29		640				Aerial survey, West Fork only	Kubik (1966)
		1965			2,749				Entire Deshka River System	Kubik (1966)
		1965			5,000				System-wide aerial estimate	Kubik (1966)
		1966			281				Aerial survey, West Fork only	Kubik (1967)
		1966			933				Entire Deshka River System	Kubik (1967)
		1966			2,000				System-wide aerial estimate	Kubik (1967)
		1967			764				Aerial survey, West Fork only	Kubik (1968)

Appendix A.1. Escapement surveys of adult salmon for systems with sockeye in the Northern District of Upper Cook Inlet.

#	Location Code/ Stream Name/ USGS Map No.	Year	Date	Chinook	Sockeye	Coho	Chum	Pink	Comments	Data Source
		1967		1,535					Entire Deshka River System	Kubik (1968)
		1967		2,500					System-wide aerial estimate	Kubik (1968)
		1968		1,246					Aerial survey, West Fork only	Kubik (1969)
		1968		4,863					Entire Deshka River System	Kubik (1969)
		1969		2,036					Aerial survey, West Fork only	Kubik (1970)
		1969		5,652					Aerial count, Entire Deshka River System	Kubik (1970)
		1969		2,300					Sonar count	Stewart & Flagg (1969)
		1970		1,417					Aerial survey, West Fork only	Kubik (1971)
		1970		5,286					Aerial count, Entire Deshka River System	Kubik (1971)
		1971		161					Aerial count, East Fork only	Kubik (1972)
		1972		877					Aerial survey, West Fork only	Kubik (1973)
		1972		1,780					Aerial count, Entire Deshka River System	Kubik (1973)
		1972		1,780					Ground survey	Kubik & Trent (1974)
		1973		2,381					Observation tower count	Kubik & Trent (1974)
		1974		5,279					Aerial count	Kubik & Chlupach (75)
		1975		4,737					Aerial count	Kubik & Riis (1976)
		1976		21,693					Aerial count	Kubik & Wadman (77)
		1977		39,642					Aerial count, Entire Deshka River System	Kubik & Wadman (78)
		1978		24,639					Aerial count	Kubik & Wadman (79)
		1979		5,373					Aerial count, Study Area I	Delaney et al. (1981)
		1979		2,830					Aerial count, Study Area II	Delaney et al. (1981)
		1979		1,212					Aerial count, Study Area III, IV, V, & VI	Delaney et al. (1981)
		1979		27,385					Bartlett, SF, Palmer, (1991)	
		1979		27,385					Aerial count, Entire Deshka River System	Kubik & Delaney (1980)
		1979		7,908					Aerial count, Kroto Creek above confluence with Mouse Creek	Delaney et al. (1981)
		1982			500	10,000		500,000	Entire Deshka River System	ADF&G (1982)
		1982		20,000					ADF&G, Sport Fish	ADF&G, CF
		1982		16,000					Aerial count, ADF&G, SF, Bartlett, (1991)	Delaney & Hepler (83)
		1982	8/05-8/09	10,671					Partial aerial ct. helo. - Mainstem Deshka-Trapper Ck. to Forks; Trapper Crk not surv	ADF&G (1983a) cond. fair
		1983	7/26	19,237					Aerial count, helicopter, excellent	Barrett et al. (1984)
		1984	8/04	16,892					Aerial count, helicopter, excellent	Barrett et al. (1985)
		1985		18,151		35	1	1	Chinook data from Sport Fish Div. surveys	King and Tarbox (1986)
		1986		21,080						ADF&G, SF
		1987		15,028						ADF&G, SF
		1988		19,200						ADF&G, SF
		1990		18,166						ADF&G, SF
		1991		8,112						ADF&G, SF, Bartlett (91)
		1992		7,736						ADF&G, SF, Whitmore (92)
		1993		5,769						ADF&G, SF, Palmer
		1994		2,665						ADF&G, SF, Palmer
		1995		4,156						ADF&G, SF, Palmer
		1995	5/21-9/1	10,048	1,388	12,824	5	44,595	weir count	ADF&G, SF, Palmer
		1996	5/23-7/30	14,354	428	2,544	0	41,013	weir count	ADF&G, SF, Palmer, 96
		1996		6,343					Aerial ct., above & below	ADF&G, SF, Palmer, 96
	247-41-10200 -2081-0010 Kroto Lake Talkeetna B-2									
	247-41-10200 -2081-3050 Trapper Creek Tyonek D-1	Hist							Max. count 234 chinook (1964)	
		1964	8/10	234					Boat survey	Kubik (1965)
		1967		121					Ground survey	Kubik (1973)
		1968		184					Ground survey	Kubik (1973)
		1972		0					Ground survey	Kubik (1973)
		1979		253					Aerial count	Delaney et al. (1981)
		1983	7/29		3,000					CIAA
		1985		22	31	294				King and Tarbox (1986)
		1985	8/15		2,000				Aerial survey, helicop.	CIAA
	247-41-10200 -2081-3065 Chijuk Creek * Tyonek D-2								Note - TYONEK D-2	
		1964	8/09	238					Boat survey	Kubik (1965)
		1965	7/28	16					Aerial count	Kubik (1966)
		1966		27					Aerial count	Kubik (1973)
		1967		54					Ground survey	Kubik (1973)
		1968		242					Ground survey	Kubik (1973)
		1969		14					Ground survey	Kubik (1973)
		1970		195					Ground survey	Kubik (1973)
		1971		36					Ground survey	Kubik (1973)
		1979		1,220					Aerial count	Delaney et al. (1981)
	247-41-10200 -2081-3065-4019 Talkeetna A-2									
	247-41-10200 -2081-3065-4027 Yenlo Creek Talkeetna A-2									
	247-41-10200 -2081-3081 Twentymile Creek Talkeetna B-2	Hist							Max. count 2,705 chinook (1965)	
		1964	8/07	11					Aerial count	Kubik (1965)
	247-41-10200 -2081-3094 Seventeenmile Creek Talkeetna B-2									

Appendix A.1. Escapement surveys of adult salmon for systems with sockeye in the Northern District of Upper Cook Inlet.

#	Location Code/ Stream Name/ USGS Map No.	Year	Date	Chinook	Sockeye	Coho	Chum	Pink	Comments	Data Source
	247-41-10200								Note - Most escapements combined in	
	-2081-3100								Deshka River totals	
	Moose Creek	1964	7/31	1,590					Boat survey, Index area	Kubik (1965)
	Tyonek D-2	1965	8/05	2,065					Boat survey, Index area	Kubik (1966)
	Talkeetna B-1	1966		625					Ground survey, Index area	Kubik (1973)
		1967		396					Ground survey, Index area	Kubik (1973)
		1968		1,646					Ground survey, Index area	Kubik (1973)
		1969		2,786					Ground survey, Index area	Kubik (1973)
		1970		2,824					Ground survey, Index area	Kubik (1973)
		1971		161					Ground survey, Index area	Kubik (1973)
		1972		867					Ground survey, Index area	Kubik (1973)
		1973		316					Aerial count	Kubik & Trent (1974)
		1979		8,559					Aerial count	Delaney et al. (1981)
	247-41-10200								Listed in Kubik's reports as	
	-2081-3100-4167*								Unknown Creek (vic. Deshka)	
	Gate Creek *	1962	6/21	0					Aerial count	Kubik (1964)
	Talkeetna A-1	1963	6/27	0					Aerial count	Kubik (1964)
	Talkeetna B-1	1964		49					Aerial count	Kubik (1973)
		1965		28					Aerial count	Kubik (1973)
		1970		5					Aerial count	Kubik (1973)
	247-41-10200								Note - Trib. of Kroto Creek, TALK A-1	
	-2081-3121*									
	Porter Creek	Hist							Max. count 200 sockeye (1965)	
	Talkeetna A-1									
	247-41-10200									
	-2081-3100-4155									
	Talkeetna A-1									
	247-41-10200									
	-2081-3124									
	Talkeetna B-2									
	247-41-10200									
	-2095									
	Tyonek D-1									
	247-41-10200									
	-2120									
	Willow Creek	Hist							Max. count 4,500 chinook (1947);	
	Tyonek D-1								2,000 coho (1950); 20,000 chum	
	Anchorage D-8								(1950); 40,000 pinks (1950) 60	
									sockeye (1967)	
		1958	7/04	300					Suspect this was an aerial count	Kubik (1964)
		1961	7/06	170					Aerial count, fixed wing. Peak count	Stefanich (1962)
		1962	7/31	71					Aerial count	Kubik (1963)
		1963	7/30	55					Aerial count	Kubik (1964)
		1964	8/02	51					Boat survey	Kubik (1965)
		1965	7/11	35					Aerial count	Kubik (1966)
		1966		103					Aerial count	Kubik (1967)
		1967		24					Aerial count	Kubik (1968)
		1968		125					Aerial count	Kubik (1969)
		1969		290					Ground survey. Index area	Redick (1970)
		1969		100					*Excellent observation - all at mouth*	Stewart & Flagg (1969)
		1970		640					Ground survey. Index area	Redick (1971)
		1971		165					Boat survey. Index area	Watsjold (1972)
		1972		370					Boat survey. Index area	Watsjold (1973)
		1973		1,074					Boat survey. Index area	Watsjold (1974)
		1973	7/24	678						ADF&G (1982)
		1973	7/25	981						ADF&G (1982)
		1974	7/26	402					Ground survey	Watsjold (1975)
		1975	8/04	177					Ground survey	Watsjold (1976)
		1976	7/15	1,660					Ground survey	Watsjold (1977)
		1977		1,065					Ground survey	Watsjold (1978)
		1978		1,166					Ground survey - Poor	Watsjold (1979)
		1979		848					Ground survey - Poor	Watsjold (1980)
		1979		459	94	402	582	3,445	Sport fish harvest	
		1980							No count - high, turbid water	Bentz (1982)
		1981		1,357						ADF&G (1982)
		1981					7,000	250,000	Max.abun. est.based on sev. yrs.observ.	ADF&G (1982)
		1981	7/29	991					Aerial ct., helo. < 10% morts at this time,	ADF&G (1981)
		1982		821					good	ADF&G, CF
		1982	8/06	592					Ground survey - Fair	ADF&G (1983a)
		1983	7/18	83					Aerial survey, helo. Parks Hwy to Mouth	Barrett et al. (1984)
									RM 0.0, Good	
		1983	7/19	694					*Boat sur., raft, Canyon to Parks Hwy, excel.*	Barrett et al. (1984)
		1983		777						Hepler & Bentz (1984)
		1984		2,789						Hepler & Bentz (1985)
		1984	10/06	0	0	0	0	0	Aerial count, helicopter, good, TRM 0.0	Barrett et al. (1985)
		1984	7/27	0	0	0	0	0	Ground survey, Index area, poor, TRM 0.0	Barrett et al. (1985)
		1984	8/06	0	77	90	157	2,871	Ground survey, excellent, TRM 0.0	Barrett et al. (1985)
		1984	8/12	0	212	347	16	926	Ground survey, Good, TRM 0.0	Barrett et al. (1985)
		1984	8/22	0	0	1,198	0	125	Ground survey, excellent, TRM 0.0	Barrett et al. (1985)
		1984	8/30	0	0	92	1	10	Ground survey, fair, TRM 0.0	Barrett et al. (1985)
		1984	9/09	0	0	7	0	7	Ground survey, excellent, TRM 0.0	Barrett et al. (1985)
		1984	9/18	0	0	3	0	2	Ground survey, good, TRM 0.0	Barrett et al. (1985)
		1984	9/25	0	0	3	0	8	Ground survey, excellent, TRM 0.0	Barrett et al. (1985)
		1985		1,856			13	34	Chum. data from Div. Sport Fish surveys	King and Tarbox (1986)
									Pink & chum counts are not peak counts	
		1986		2,059					Aerial count	King and Tarbox (1988)
		1987		2,768					ADF&G, SF, Bartlett, (1991)	
		1988		2,496					ADF&G, SF, Bartlett, (1991)	
		1989		5,060					Aerial count, helo, ADF&G, SF, Engle	
		1989		2,570					Chinook sport harvest, ADF&G, SF, Engle	

Appendix A.1. Escapement surveys of adult salmon for systems with sockeye in the Northern District of Upper Cook Inlet.

#	Location Code/ Stream Name/ USGS Map No.	Year	Date	Chinook	Sockeye	Coho	Chum	Pink	Comments	Data Source
		1990		2,365					ADF&G, SF, Engle	
		1991		2,006					ADF&G, SF, Bartlett, (1991)	
		1992		1,660					ADF&G, SF, Whitmore, (1992)	
		1993		2,227					ADF&G, SF, Sweet (Palmer)	
		1994		1,479					ADF&G, SF, (Palmer)	
		1995		3,792					ADF&G, SF, (Palmer)	
		1996		1,776					ADF&G, SF, (Palmer)	
	247-41-10200 -2120-3010 Tyonek D-1 Tyonek C-1									
	247-41-10200 -2120-3010-0010 Tyonek C-1									
	247-41-10200 -2120-3017 Tyonek D-1									
	247-41-10200								Note - TYONEK D-1	
	-2120-3020	1978		495					Ground survey, Upper Deception Creek	Wangold (1979)
	Deception Creek	1979		238					Ground survey, Upper Deception Creek	Wangold (1980)
	Tyonek D-1	1980		366						
	Anchorage C-8	1981	7/29	366					Aerial sur., helo, < 10% morts., good	ADF&G (1981)
		1982	8/06	229					Ground survey - Fair	ADF&G (1983a)
		1983		121						Hepler & Bentz (1984)
		1984		675						Hepler & Bentz (1985)
		1985		1,044					Div. of Sport Fish survey.	King and Tarbox (1986)
		1986		521						ADF&G, SF, Bartlett
		1987		692						ADF&G, SF, Bartlett
		1988		790						ADF&G, SF, Bartlett
		1989		800					Weir count	ADF&G, SF, Bartlett
		1990		700						ADF&G, SF, Bartlett
		1991		747						ADF&G, SF, Bartlett
		1992		983						ADF&G, SF, Whitmore
		1993		1,221						ADF&G, SF, Sweet (Pal)
		1994		766						ADF&G, SF, (Palmer)
		1995		834						ADF&G, SF, (Palmer)
		1996		1,211						ADF&G, SF, (Palmer)
	247-41-10200 -2120-3020-4010 Anchorage D-8									
	247-41-10200 -2120-3020-4018 Anchorage C-8									
	247-41-10200 -2120-3020-4021 Anchorage C-8 Anchorage D-8									
	247-41-10200 -2120-3020-4031 Anchorage C-8									
	247-41-10200 -2120-3020-4041 Anchorage C-8									
	247-41-10200 -2120-3020-4051 Anchorage C-8									
	247-41-10200 -2120-3020-4071 Anchorage C-8									
	247-41-10200 -2120-3020-4071 -5011 Anchorage C-8									
	247-41-10200 -2120-3020-4071 -5018 Anchorage C-8									
	247-41-10200 -2120-3020-4071 -5050 Anchorage C-8									
	247-41-10200 -2130									
	Little Willow Creek	Hist							Max. count 278 chinook (1969); 35,000 pinks	
	Tyonek D-1	1961	6/27	112					Aerial count, fixed wing. Peak count	Stefanich (1962)
	Anchorage D-8	1962	7/16	26					Aerial count	Kubik (1963)
		1963	7/09	11					Aerial count	Kubik (1964)
		1964	8/13	7					Aerial count	Kubik (1965)
		1965	7/06	3					Aerial count	Kubik (1966)

Appendix A.1. Escapement surveys of adult salmon for systems with sockeye in the Northern District of Upper Cook Inlet.

#	Location Code/ Stream Name/ USGS Map No.	Year	Date	Chinook	Sockeye	Coho	Chum	Pink	Comments	Data Source
		1966		38					Aerial count	Kubik (1967)
		1967		6					Aerial count	Kubik (1968)
		1968		12					Aerial count	Kubik (1968)
		1969		150					Grd. survey, Exc. observation - at mouth	Stewart & Flagg (1969)
		1970	7/28	45					Aerial count - Poor	Waunjold (1973)
		1972	8/01	99					Aerial count	Waunjold (1973)
		1973		371					Aerial count,-helicopter	Waunjold (1974)
		1974		139					Aerial count, helicopter, poor	Waunjold (1975)
		1975		103					Aerial count, helicopter	Waunjold (1976)
		1976		833					Aerial count, helicopter	Waunjold (1977)
		1977		598					Aerial count, helicopter	Waunjold (1978)
		1978		436					Aerial count, helicopter	Waunjold (1979)
		1979		324					Aerial count, helicopter, poor	Waunjold (1980)
		1979		327					ADF&G, SF, Bartlett (1991)	
		1980							No count - high, turbid water	Bentz (1982)
		1981	7/31	459					Aerial ct., helo.< 10% morts , good	ADF&G (1981)
		1982	8/07	316					Aerial count, helicopter, good	ADF&G (1983a)
		1983	7/19	1,042					Aerial count, helicopter, good	Barrett et al. (1984)
		1984	9/20	0	0	0	0	0	Aerial count, helicopter, good, TRM 0.0	Barrett et al. (1985)
		1984	10/06	0	0	2	0	0	Aerial count, helicopter, good, TRM 0.0	Barrett et al. (1985)
		1984	7/27	0	0	0	0	0	Ground survey, poor, TRM 0.0	Barrett et al. (1985)
		1984	8/03	0	5	2	15	145	Ground survey, good-exc., TRM 0.0	Barrett et al. (1985)
		1984	8/11	0	0	1	2	32	Ground survey, fair-good, TRM 0.0	Barrett et al. (1985)
		1984	8/21	0	12	3	0	412	Ground survey, Excellent, TRM 0.0	Barrett et al. (1985)
		1984	8/29	0	0	10	0	23	Ground survey, Good, TRM 0.0	Barrett et al. (1985)
		1984	9/08	0	0	0	2	12	Ground survey, Excellent, TRM 0.0	Barrett et al. (1985)
		1984	9/26	0	0	0	2	21	Ground survey, Excellent, TRM 0.0	Barrett et al. (1985)
		1985		1,305						King and Tarbox (1986)
		1986		2,133					Aerial count	King and Tarbox (1988)
		1987		1,320						ADF&G, SF, Bartlett
		1988		1,515						ADF&G, SF, Bartlett
		1989		1,325					Aerial count, rotary wing	ADF&G, SF, Engle
		1990		1,115						ADF&G, SF, Engle
		1991		498					RM 59.5	ADF&G, SF, Bartlett
		1992		673						ADF&G, SF, Whitmore
		1993		705						ADF&G, SF, Palmer
		1994		712						ADF&G, SF, Palmer
		1995		1,210						ADF&G, SF, Palmer
		1996		1,077						ADF&G, SF, Palmer
	247-41-10200 -2130-3011 Tyonek D-1									
	247-41-10200 2130-3011-0010 Kashwitna Lake Tyonek D-1									
	247-41-10200 -2170*								Note - TYONEK D-1	
	196 Mile Creek ? Tyonek D-1	1984	10/06	0	0	0	0	0	Aerial count, helicopter, fair, TRM 0.0	Barrett et al. (1985)
		1984	7/27	0	0	0	0	0	Ground survey, poor, TRM 0.0	Barrett et al. (1985)
		1984	8/02	0	0	0	0	0	Ground survey, very poor, TRM 0.0	Barrett et al. (1985)
		1984	8/10	0	0	0	0	0	Ground survey, poor, TRM 0.0	Barrett et al. (1985)
		1984	8/20	0	0	0	0	1	Ground survey, poor, TRM 0.0	Barrett et al. (1985)
		1984	8/28	0	0	0	0	0	Ground survey, poor, TRM 0.0	Barrett et al. (1985)
		1984	9/11	0	0	0	0	0	Ground survey, Excellent, TRM 0.0	Barrett et al. (1985)
		1984	9/20	0	0	0	0	0	Ground survey, poor, TRM 0.0	Barrett et al. (1985)
		1984	9/27	0	0	0	0	0	Ground survey, Fair, TRM 0.0	Barrett et al. (1985)
	247-41-10200 -2180									
	Kashwitna River	1958	7/04	0					Suspected aerial count	Kubik (1964)
	Tyonek D-1	1961	7/25	35					Aerial count, fixed wing	Stefanich (1962)
	Anchorage D-6	1962		0					Aerial count	Kubik (1963)
		1963		0					Aerial count	Kubik (1964)
		1979		457					Escapement index count, ADF&G, SF,	Sweet(1993)Palmer
		1981		558					Escapement index count, ADF&G, SF,	Sweet(1993)Palmer
		1982		156					Escapement index count, ADF&G, SF,	Sweet(1993)Palmer
		1983		297					Escapement index count, ADF&G, SF,	Sweet(1993)Palmer
		1984		111					Escapement index count, ADF&G, SF,	Sweet(1993)Palmer
		1984	9/10	0	0	0	0	0	Aerial count, helicopter, poor, TRM 0.0	Barrett et al. (1985)
		1984	7/26	0	0	0	0	0	Ground survey - Poor, TRM 0.0	Barrett et al. (1985)
		1984	8/02	0	0	0	0	0	Ground survey - Poor, TRM 0.0	Barrett et al. (1985)
		1984	8/10	0	0	0	0	0	Ground survey - Poor, TRM 0.0	Barrett et al. (1985)
		1984	8/20	0	0	0	0	0	Ground survey - Poor, TRM 0.0	Barrett et al. (1985)
		1984	8/28	0	0	0	0	0	Ground survey - Poor, TRM 0.0	Barrett et al. (1985)
		1984	9/27	0	0	0	0	0	Ground survey - Good, TRM 0.0	Barrett et al. (1985)
		1985		457					Escapement index count, ADF&G, SF,	Sweet(1993)Palmer
		1986		700					Escapement index count, ADF&G, SF,	Sweet(1993)Palmer
		1987		872					Escapement index count, ADF&G, SF,	Sweet(1993)Palmer
		1988		1,159					Escapement index count, ADF&G, SF,	Sweet(1993)Palmer
		1989		355					Escapement index count, ADF&G, SF,	Sweet(1993)Palmer
		1990		872					Escapement index count, ADF&G, SF,	Sweet(1993)Palmer
		1991		340					Escapement index count, ADF&G, SF,	Sweet(1993)Palmer
		1992		470					Escapement index count, ADF&G, SF,	Sweet(1993)Palmer
		1993		525					Escapement index count, ADF&G, SF,	Sweet(1993)Palmer
		1994		430					Escapement index count,	ADF&G, SF, Palmer
		1995		836					Escapement index count,	ADF&G, SF, Palmer
		1996		782					Escapement index count,	ADF&G, SF, Palmer
	247-41-10200 -2180-3061 North Fork Kashwitna River	Hist							Chinook present, max count 10,000 pulks (1966)	

Appendix A.1. Escapement surveys of adult salmon for systems with sockeye in the Northern District of Upper Cook Inlet.

#	Location Code/ Stream Name/ USGS Map No.	Year	Date	Chinook	Sockeye	Coho	Chum	Pink	Comments	Data Source
	Anchorage D-8	1961	7/25	35					Aerial count, fixed wing. Peak count	Stefanich (1962)
	Talk. Mtns A-6	1962	7/31	19					Aerial count	Kubik (1963)
		1963	7/07	3					Aerial count	Kubik (1964)
		1964	7/17	14					Aerial count	Kubik (1965)
		1965	7/11	3					Aerial count	Kubik (1966)
		1966		2					Aerial count	Kubik (1967)
		1971		1					Aerial count - Poor	Waarjold (1972)
		1972		31					Aerial count	Waarjold (1973)
		1973		183					Aerial count, fixed wing	Waarjold (1974)
		1974		103					Aerial count, fixed wing	Waarjold (1975)
		1975		33					Aerial count, helicopter	Waarjold (1976)
		1976		303					Aerial count, helicopter	Waarjold (1977)
		1977		336					Aerial count, helicopter	Waarjold (1978)
		1978		362					Aerial count, helicopter	Waarjold (1979)
		1979		457					Aerial count, helicopter	Waarjold (1980)
		1980							No count - high, turbid water	Bentz (1982)
		1981	7/31	557					Aerial ct., helo. < 10% morts , good	ADF&G (1981)
		1982	8/10	156					Aerial count, helicopter, exc.	ADF&G (1983a)
		1983	7/18	297					Aerial count, helicopter, good	Barrett et al. (1984)
		1984	7/31	111					Aerial count, helicopter, poor	Barrett et al. (1985)
		1984	8/20					2		Barrett et al. (1985)
		1984	9/27			33	172			Barrett et al. (1985)
		1989		355					Aerial count, rotary wing	ADF&G, SF, Engle
	247-41-10200 -2190									
	Carwell Creek	1958	6/10	0					Suspected aerial count	Kubik (1964)
	Tyonek D-1	1961	7/06	6					Aerial count, fixed wing	Stefanich (1962)
	Talk. Mtns. A-6	1962	7/01						Grd. sur., Chinook present - jumpers sited	Kubik (1963)
		1963	7/07	0					Aerial count	Kubik (1964)
		1966		1					Aerial count	Kubik (1967)
		1984	7/26	0	0	0	0	0	Ground survey, poor, TRM 0.0	Barrett et al. (1985)
		1984	7/30	0	0	0	0	0	Ground survey, poor, TRM 0.0	Barrett et al. (1985)
		1984	8/06	2	0	44	14	16	Ground survey, fair, TRM 0.0	Barrett et al. (1985)
		1984	8/13	0	0	42	34	39	Ground survey, fair, TRM 0.0	Barrett et al. (1985)
		1984	8/20	0	0	32	21	29	Ground survey, poor, TRM 0.0	Barrett et al. (1985)
		1984	8/28	0	0	42	20	27	Ground survey,good, TRM 0.0	Barrett et al. (1985)
		1984	9/06	0	0	40	11	20	Ground survey,good, TRM 0.0	Barrett et al. (1985)
		1984	9/13	0	0	25	7	4	Ground survey,good, TRM 0.0	Barrett et al. (1985)
		1984	9/21	0	0	23	10	3	Ground survey,good, TRM 0.0	Barrett et al. (1985)
		1983	8/15		2,300				Aerial survey, helicop.	CIAA
		1985				238				King and Tarbox (1986)
		1986			50				Aerial	King and Tarbox (1988)
	247-41-10200 -2190-0010 Carwell Lake Talk. Mtns. A-6									
	247-41-10200 -2190-3020 Anchorage D-8									
	247-41-10200 -2200									
	Sheep Creek	1958	6/15	200					Aerial survey. Suspected aerial count	Kubik (1964)
	Tyonek D-1	1961	7/06	70					Aerial count, fixed wing. Peak count	Stefanich (1962)
	Talk. Mtns. A-5	1962	7/16	35					Aerial count	Kubik (1963)
		1963	8/07	24					Aerial count	Kubik (1964)
		1964	8/21					22,500	Suspect aerial ct., Mouth upstream 15 mi.	ADF&G, CF
		1964	7/17	5					Aerial count, Note survey file states that	Kubik (1965)
		1965	7/07	3					thousands of pinks present (1964); grd sur.	Kubik (1966)
		1966		100					Ground survey	Kubik (1967)
		1969		150					Ground survey	Kubik (1970)
		1969		250					Excellent observation - all at mouth	Stewart & Flagg (1969)
		1972	8/01	101					Aerial count	Waarjold (1973)
		1973	7/26	482					Aerial count, helicopter	Waarjold (1974)
		1974	7/26	202					Aerial count, fixed wing	Waarjold (1975)
		1975	8/03	42					Aerial count, fixed wing	Waarjold (1976)
		1976	7/23	455					Aerial count, helicopter	Waarjold (1977)
		1977		630					Aerial count, helicopter	Waarjold (1978)
		1978		1,209					Aerial count, helicopter	Waarjold (1979)
		1979		778					Aerial count, fixed wing	Waarjold (1980)
		1980							No count - high, turbid water	Bentz (1982)
		1981	7/31	1,013					Aerial ct., helo.< 10% morts , good	ADF&G (1981)
		1982	8/07	527					Aerial count, helicopter, good	ADF&G (1983a)
		1983	8/18	945					Aerial count, helicopter, fair	Bartlett et al. (1984)
		1983		975						Hepler & Bentz (1984)
		1984	7/26	0	0	0	0	0	Ground survey - Poor, TRM 0.0	Barrett et al. (1985)
		1984	7/30	0	0	0	0	0	Ground survey - Poor, TRM 0.0	Barrett et al. (1985)
		1984	7/31	1,028					Aerial count, helicopter , fair	Barrett et al. (1985)
		1984	8/06	0	0	0	86	91	Ground survey - Poor, TRM 0.0	Barrett et al. (1985)
		1984	8/13	0	0	21	111	211	Ground survey - Poor, TRM 0.0	Barrett et al. (1985)
		1984	8/20	0	0	0	6	0	Ground survey - Poor, TRM 0.0	Barrett et al. (1985)
		1984	8/28	0	0	1	5	1	Ground survey - Fair, TRM 0.0	Barrett et al. (1985)
		1984	9/06	0	0	4	5	14	Ground survey - Fair, TRM 0.0	Barrett et al. (1985)
		1984	9/13	0	0	21	2	4	Ground survey - Good, TRM 0.0	Barrett et al. (1985)
		1984	9/21	0	0	14	2	2	Ground survey - Good, TRM 0.0	Barrett et al. (1985)
		1985		1,634					Div. of Sport Fish surveys.	King and Tarbox (1986)
		1986		1,285					Aerial survey	King and Tarbox (1988)
		1987		895					ADF&G, SF, Bartlett (1991)	
		1988		1,215					ADF&G, SF, Bartlett (1991)	
		1989		610					Aerial survey, rotary wing	ADF&G, SF, Engle
		1989		855					Chinook sport harvest,	ADF&G, SF, Engle
		1990		634						ADF&G, SF, Engle
		1991		154						ADF&G, SF, Bartlett

Appendix A.1. Escapement surveys of adult salmon for systems with sockeye in the Northern District of Upper Cook Inlet.

#	Location Code/ Stream Name/ USGS Map No.	Year	Date	Chinook	Sockeye	Coho	Chum	Pink	Comments	Data Source
		1992							No survey conducted	
		1993							No survey conducted	ADF&G, SF, Palmer
		1994		542						ADF&G, SF, Palmer
		1995		1,049						ADF&G, SF, Palmer
		1996		1,028						ADF&G, SF, Palmer
	247-41-10200									
	-2230									
	Goose Creek	Hist							Chinook, chum present, max. count 5,000 pinks (1969); 177 coho (1968)	
	Talkeetna A-1									
	Talk. Mtns. A-6	1958	7/15	1					Suspect ground survey or aerial count	Kubik (1964)
		1961	7/25	0					Suspect ground survey or aerial count	Kubik (1964)
		1962	6/27	0					Suspect ground survey or aerial count	Kubik (1964)
		1963	7/07	0					Suspect ground survey or aerial count	Kubik (1964)
		1968	9/05			147			Grd. sur. Index area, total est. = 200 coho	Redick (1969a)
		1969				0			Ground survey. Index area	Redick (1970)
		1970				2			Ground survey. Index area	Redick (1971)
		1970	9/16				2			ADF&G (1982)
		1974	7/26	41					Aerial count, fixed wing	Watsjold (1975)
		1975	8/03	13					Aerial count, fixed wing	Watsjold (1976)
		1976	7/15	160					Aerial count, fixed wing	Watsjold (1977)
		1976	7/23	104						ADF&G (1982)
		1977		133					Aerial count, helicopter	Watsjold (1978)
		1978		283					Aerial count, helicopter	Watsjold (1979)
		1980							No count - high, turbid water	Bentz (1982)
		1981	7/30	262					Aerial ct., helo, < 10% morts., good	ADF&G (1981)
		1982	8/07	140					Aerial count, helicopter, good	ADF&G (1983a)
		1983	7/18	477					Aerial count, helicopter, fair	Barrett et al. (1984)
		1984	7/31	258					Aerial count, helicopter, fair	Barrett et al. (1985)
		1984	9/14	0	0	7	4	4	Aerial count, helicopter, good, TRM 0.0	Barrett et al. (1985)
		1984	9/22	0	0	9	3	3	Aerial count, helicopter, good, TRM 0.0	Barrett et al. (1985)
		1984	7/27	3	74	0	128	0	Ground survey, poor-fair, TRM 0.0	Barrett et al. (1985)
		1984	7/31	0	0	0	72	282	Ground survey - Fair, TRM 0.0	Barrett et al. (1985)
		1984	8/07	0	0	8	278	173	Ground survey - Fair, TRM 0.0	Barrett et al. (1985)
		1984	8/14	0	3	7	281	223	Ground survey - Good, TRM 0.0	Barrett et al. (1985)
		1984	8/21	0	0	13	11	25	Ground survey - Good, TRM 0.0	Barrett et al. (1985)
		1984	8/29	0	0	19	12	19	Ground survey - Good, TRM 0.0	Barrett et al. (1985)
		1984	9/07	0	0	14	9	15	Ground survey - Excellent, TRM 0.0	Barrett et al. (1985)
		1985		401					Div. of Sport Fish surveys.	King and Tarbox (1986)
		1986		630					Aerial survey	King and Tarbox (1988)
		1987		416						ADF&G, SF, Bartlett, 91
		1988		1,076						ADF&G, SF, Bartlett, 91
		1989		835					Aerial survey, rotary wing	ADF&G, SF, Engle
		1990		552						ADF&G, SF, Engle
		1991		968						ADF&G, SF, Bartlett, 91
		1992		369						ADF&G, SF, Whitmore
		1993		347						ADF&G, SF, Sweet (Pal
		1994		375						ADF&G, SF, (Palmer)
		1995		374						ADF&G, SF, (Palmer)
		1996		305						ADF&G, SF, (Palmer)
	247-41-10200									
	-2250									
	Montana Creek	Hist							Chinook present, max. count 30,000 pinks (1966); 450 coho (1951)	
	Talkeetna A-1									
	Talk. Mtns A-6	1958	7/11	43					Suspected aerial count	Kubik (1964)
		1961	7/13	65					Aerial count, Peak count	Stefanich (1962)
		1962	6/30	75					Aerial count	Kubik (1963)
		1963	7/09	23					Aerial count	Kubik (1964)
		1964	8/04	75					Ground survey	Kubik (1965)
		1965	7/30	57					Ground survey	Kubik (1966)
		1966		100					Ground survey	Kubik (1967)
		1967		2					Ground survey	Kubik (1968)
		1968		5					Ground survey	Kubik (1969)
		1969		250					Comm. Fish observe school at mouth	Kubik (1970)
		1969		150					Ground survey. Index area	Redick (1970)
		1969		50					Excellent observation - all at mouth	Stewart & Flagg (1969)
		1970		161						ADF&G (1982)
		1970	7/27	260						ADF&G (1982)
		1970	7/28	21						ADF&G (1982)
		1970		261					Ground survey. Index area	Redick (1971)
		1971		44					Ground survey. Index area	Watsjold (1972)
		1971	8/03	20						ADF&G (1982)
		1971	8/05	24						ADF&G (1982)
		1972		317					Ground survey. Index area	Watsjold (1973)
		1972	7/25	211						ADF&G (1982)
		1972	7/26	106						ADF&G (1982)
		1973		527					Ground survey. Index area	Watsjold (1974)
		1974	7/24	280					Ground survey	Watsjold (1975)
		1975	7/29	229					Ground survey	Watsjold (1976)
		1976	7/26	1,445					Ground survey	Watsjold (1977)
		1977		1,443					Ground survey	Watsjold (1978)
		1978		881					Ground survey - Poor	Watsjold (1979)
		1979		1,094					Ground survey - Poor	Watsjold (1980)
		1980							No count - high, turbid water	Bentz (1982)
		1981	7/30	814					Aerial ct, helo, < 10% morts., good	ADF&G (1981)
		1982	8/05	887					Ground survey - Good	ADF&G (1983a)
		1983	7/14	1,641					Ground survey, excellent	Barrett et al. (1984)
		1984	7/24	2,309					Ground survey - Fair	Barrett et al. (1985)
		1984	7/27	1	0	0	0	0	Ground survey, fair-good, TRM 0.0	Barrett et al. (1985)
		1984	7/31	15	0	0	13	23	Ground survey - Poor, TRM 0.0	Barrett et al. (1985)
		1984	8/07	3	0	7	20	96	Ground survey - Fair, TRM 0.0	Barrett et al. (1985)
		1984	8/14	10	0	12	41	182	Ground survey - Fair, TRM 0.0	Barrett et al. (1985)
		1984	8/21	2	0	9	24	37	Ground survey - Fair, TRM 0.0	Barrett et al. (1985)
		1984	8/29	0	0	0	0	0	Ground survey - Poor, TRM 0.0	Barrett et al. (1985)
		1984	9/07	0	0	10	6	16	Ground survey - Good, TRM 0.0	Barrett et al. (1985)

Appendix A.1. Escapement surveys of adult salmon for systems with sockeye in the Northern District of Upper Cook Inlet.

#	Location Code/ Stream Name/ USGS Map No.	Year	Date	Chinook	Sockeye	Coho	Chum	Pink	Comments	Data Source
		1984	9/14	0	0	50	0	0	Ground survey - Good, TRM 0.0	Barrett et al. (1985)
		1984	9/23	0	0	7	2	0	Ground survey - Good, TRM 0.0	Barrett et al. (1985)
		1985		1,767					Div of Sport Fish surveys.	King and Tarbox (1986)
		1987		1,452						ADF&G, SF, Bartlett 91
		1988		2,016						ADF&G, SF, Bartlett 92
		1989		2,701					Aerial survey, helicop.	ADF&G, SF, Engle
		1989		2,221					Chinook sport harvest	ADF&G, SF, Engle
		1990		1,576						ADF&G, SF, Engle
		1991		1,605						ADF&G, SF, Bartlett 92
		1992		1,560						ADF&G, SF, Whitmore
		1993		1,218						ADF&G, SF, (Palmer)
		1994		1,143						ADF&G, SF, (Palmer)
		1995		2,110						ADF&G, SF, (Palmer)
		1996		1,841						ADF&G, SF, (Palmer)
	247-41-10200									
	-2250-3050									
	South Fork									
	Montana Creek									
	Talk. Mtns. A-6									
	247-41-10200									
	-2250-3061									
	Middle Fork									
	Montana Creek									
	Talk. Mtns. A-6									
	247-41-10200									
	-2250-3061-4009									
	North Fork									
	Montana Creek									
	Talk. Mtns. A-6									
	247-41-10200									
	-2254									
	Talkeetna A-1									
	247-41-10200									
	-2254-0010									
	Talkeetna A-1									
	247-41-10200									
	-2254-0020									
	Talkeetna A-1									
	247-41-10200									
	-2261									
	Talkeetna A-1									
	247-41-10200									
	-2291									
	Rabideux Creek	Hist							Chunook present	
	Talkeetna A-1	1962	6/27	0					Aerial count	Kubik (1964)
	Talkeetna B-1	1964	8/05	8					Aerial count	Kubik (1965)
		1975	9/26				67		Ground survey, Index area	Waxjold (1976)
		1976	9/29				91		Ground survey, Index area	Waxjold (1977)
		1977		99					Aerial count	Kubik & Wadman (1978)
		1978					83		Ground survey, Index area	Waxjold (1979)
		1982							chinook, coho, pink present	ADF&G, SF
		1984	9/26	0	1	21	0	0	Aerial count, helicopter, good, TRM 0.0	Barrett et al. (1985)
		1984	7/23	8	0	0	0	0	Ground survey - Good, TRM 0.0	Barrett et al. (1985)
		1984	7/29	0	7	0	13	0	Ground survey - Poor, TRM 0.0	Barrett et al. (1985)
		1984	8/02	0	0	0	0	0	Ground survey - Poor, TRM 0.0	Barrett et al. (1985)
		1984	8/10	0	0	0	0	0	Ground survey - Poor, TRM 0.0	Barrett et al. (1985)
		1984	8/17	0	0	0	0	35	Ground survey - Poor, TRM 0.0	Barrett et al. (1985)
		1984	8/24	0	0	0	0	1	Ground survey - Poor, TRM 0.0	Barrett et al. (1985)
		1984	9/01	0	0	1	2	1	Ground survey - Poor, TRM 0.0	Barrett et al. (1985)
		1984	9/10	0	0	1	2	0	Ground survey - Good, TRM 0.0	Barrett et al. (1985)
		1984	9/17	0	0	0	1	2	Ground survey - Fair, TRM 0.0	Barrett et al. (1985)
		1984				480				ADF&G, SF
		1985				82				ADF&G, SF
		1987				50			Poor survey conditions	
		1987				503				ADF&G, SF
		1988				230				ADF&G, SF
		1989				20				ADF&G, SF
		1990				20				ADF&G, SF
		1991				135				ADF&G, SF, Bartlett, 91
		1992							No survey conducted	
		1993							No survey conducted	ADF&G, SF, Sweet (Pal.)
		1994				105				ADF&G, SF, Sweet (Pal.)
		1995				39				ADF&G, SF, Sweet (Pal.)
		1996							No survey conducted	
	247-41-10200									
	-2291-3011									
	Queer Creek									
	Talkeetna A-1									
	247-41-10200									
	-2291-3011-4030									
	Talkeetna A-1									
	247-41-10200									
	-2291-3041									
	Sawmill Creek									
	Talkeetna B-1									

Appendix A.1. Escapement surveys of adult salmon for systems with sockeye in the Northern District of Upper Cook Inlet.

#	Location Code/ Stream Name/ USGS Map No.	Year	Date	Chinook	Sockeye	Coho	Chum	Pink	Comments	Data Source
	Talkeetna A-1									
	247-41-10200-2291									
	-3049									
	Talkeetna B-1									
	247-41-10200									
	-2300									
	Sunshine Creek	Hist							Max. count 25 chinook (1963); 1,000 pinks (1962)	
	Talkeetna A-1	1958	6/10	0					Suspected aerial count	Kubik (1964)
		1961	7/25	0					Aerial count	Kubik (1964)
		1962	6/27	20					Aerial count	Kubik (1963)
		1963	7/07	25					Aerial count	Kubik (1964)
		1984	9/26	0	0	3	12	0	Aerial count, helicopter, good, TRM 0.0	Barrett et al. (1985)
		1984	7/29	0	0	0	4	1,611	Ground survey - Fair, TRM 0.0	Barrett et al. (1985)
		1984	8/03	1	42	2	37	321	Ground survey - Fair, TRM 0.0	Barrett et al. (1985)
		1984	8/10	0	0	16	0	766	Ground survey - Fair, TRM 0.0	Barrett et al. (1985)
		1984	8/17	0	0	20	0	256	Ground survey - Good, TRM 0.0	Barrett et al. (1985)
		1984	8/24	0	0	38	1	16	Ground survey - Good, TRM 0.0	Barrett et al. (1985)
		1984	9/01	0	0	83	1	2	Ground survey - Good, TRM 0.0	Barrett et al. (1985)
		1984	9/10	0	0	0	0	0	Ground survey - Fair, TRM 0.0	Barrett et al. (1985)
		1984	9/17	0	0	3	7	1	Ground survey - Good, TRM 0.0	Barrett et al. (1985)
	247-41-10200									
	-2300-0010									
	Sunshine Lakes									
	Talkeetna A-1									
	247-41-10200								Note - All Question Creek and	
	-2300-3011								Question Lake data combined.	
	Question Creek	Hist							Max. count 5,970 sockeye (1957)	
	Talkeetna A-1	1958	7/15	0					Suspected aerial count	Kubik (1964)
		1961	7/25	0					Aerial count	Kubik (1964)
		1962	6/27	0					Aerial count	Kubik (1964)
		1963	7/07	0					Aerial count	Kubik (1964)
		1973	9/28			59			Ground survey, Index area	Waxjold (1974)
		1974				3			Ground survey, Index area	Waxjold (1975)
		1975	9/23			111			Ground survey, Index area	Waxjold (1976)
		1976	9/28			126			Ground survey, Index area	Waxjold (1977)
		1977				87			Ground survey, Index area	Waxjold (1978)
		1978				45			Ground survey, Index area	Waxjold (1979)
		1979				384			Ground survey, Index area	Waxjold (1980)
		1980				321			Ground survey, Index area	Waxjold (1981)
		1981				230			Ground survey, Index area	Bentz (1982)
		1982				397				Bentz (1983)
		1984	9/28			320				Barrett et al. (1985)
		1984	9/29			26			Ground survey, excellent, TRM 0.0	Barrett et al. (1985)
		1984				60				ADF&G, SF
		1985				89				ADF&G, SF
		1987				149				ADF&G, SF
		1988				337				ADF&G, SF
		1989				31				ADF&G, SF
		1990				41				ADF&G, SF, Palmer
		1991				495				ADF&G, SF, Bartlett 91
		1992				227				ADF&G, SF, Whitmore
		1993				370				ADF&G, SF, Sweet (Pal.
		1994				339				ADF&G, SF, Sweet (Pal.
		1995				155				ADF&G, SF, Sweet (Pal.
		1996				238				ADF&G, SF, Sweet (Pal.
										ADF&G, SF, Palmer
	247-41-10200									ADF&G, SF, Palmer
	-2300-3011-0010									
	Question Lake								Note - See Question Creek.	
	Talkeetna A-1									
	247-41-10200									
	-2300-3011-4016									
	Answer Creek	1958	7/15	0					Suspected aerial count	Kubik (1964)
	Talkeetna A-1	1982				24				ADF&G (1983b)
		1984	9/28			60			Middle fork only	Barrett et al. (1985)
		1984				57				ADF&G, SF
		1985				9				ADF&G, SF
		1987				10				ADF&G, SF
		1988				160				ADF&G, SF
		1989				66				ADF&G, SF
		1990				6				ADF&G, SF
		1991				51				ADF&G, SF, Bartlett 91
		1992				181				ADF&G, SF, Whitmore
		1993				34				ADF&G, SF, Sweet (Pal.
		1994				0			Beaver dam blk. pass of fish dwnstr of inde	ADF&G, SF, Sweet (Pal.
		1995				35				ADF&G, SF, Sweet (Pal.
		1996				43				ADF&G, SF, Sweet (Pal.
	247-41-10200									
	-2320									
	Birch Creek									
	Slough									
	Talkeetna A-1									
	Talkeetna B-1									
	247-41-10200									
	-2320-3010									
	Birch Creek	Hist							Large numbers of sockeye observed	
	Talkeetna A-1								1953; few coho, some chums; 75,000	
	Talk. Mtns. B-6								pinks (1969)	

Appendix A.1. Escapement surveys of adult salmon for systems with sockeye in the Northern District of Upper Cook Inlet.

#	Location Code/ Stream Name/ USGS Map No.	Year	Date	Chinook	Sockeye	Coho	Chum	Pink	Comments	Data Source
		1961	6/27	80					Aerial count	Stefanuch (1962)
		1962		0					Aerial count	Kubik (1963)
		1963	7/07	6					Aerial count	Kubik (1964)
		1968	9/16			125			Grd. sur., Index area, total est. = 300 coho	Redick (1969a)
		1969	10/01			142			Grd. sur., Index area, total est. = 175 coho	Redick (1970)
		1970	9/17			201				ADF&G (1982)
		1970	9/23			206			Ground survey, Index area	Redick (1971)
		1971	9/27			138			Ground survey, Index area	Waatjold (1972)
		1972	8/18		107	15	10	3,051		ADF&G (1982)
		1972	9/28			68			Ground survey, Index area	Waatjold (1973)
		1973	8/31		16				Boat survey, Upper Birch Creek	Barrett (1973a)
		1973	9/07		1				Boat survey, Upper Birch Creek	Barrett (1973a)
		1973	9/16		5				Boat survey, Upper Birch Creek	Barrett (1973a)
		1973	9/26			106			Ground survey, Index area	Waatjold (1974)
		1974	8/23	0	0	0	0	0	Boat survey	Barrett (1975a)
		1974	8/29	0	0	0	0	0	Boat survey	Barrett (1975a)
		1974	9/04		2	8			Boat survey	Barrett (1975a)
		1974	9/16	0	0	0	0	0	Boat survey	Barrett (1975a)
		1974	9/26			49			Ground survey, Index area	Waatjold (1975)
		1975	8/21		55			2		ADF&G (1982)
		1975	8/26		8					ADF&G (1982)
		1975	8/29		11	10				ADF&G (1982)
		1975	9/05		1	15		1		ADF&G (1982)
		1975	9/23	0	0	0	0	0		ADF&G (1982)
		1975				92			Ground survey, Index area	Waatjold (1976)
		1976	8/24		49			19		ADF&G (1982)
		1976	8/27		25	11		7		ADF&G (1982)
		1976				40				ADF&G (1982)
		1976				27			Ground survey, Index area	Waatjold (1977)
		1977				96			Ground survey, Index area	Waatjold (1978)
		1978	9/11		299	146				ADF&G (1982)
		1978				103			Ground survey, Index area	Waatjold (1979)
		1979	8/28		100	25				ADF&G (1982)
		1979				120			Ground survey, Index area	Waatjold (1980)
		1980				121			Ground survey, Index area	Waatjold (1981)
		1981	8/25		150	10	10			ADF&G (1982)
		1981				121			Ground survey, Index area	Bentz (1982)
		1982				41			Ground survey, Index area	Bentz (1983)
		1984	7/23	0	0	0	0	0	Ground survey, excellent, TRM 0.0	Barrett et al. (1985)
		1984	7/29	9	174	0	0	132	Ground survey - Good, TRM 0.0	Barrett et al. (1985)
		1984	8/02	9	50	0	0	115	Ground survey - Good, TRM 0.0	Barrett et al. (1985)
		1984	8/09	16	0	0	0	904	Ground survey - Good, TRM 0.0	Barrett et al. (1985)
		1984	8/16	9	0	0	0	551	Ground survey - Good, TRM 0.0	Barrett et al. (1985)
		1984	8/23	1	3	0	0	72	Ground survey, excellent, TRM 0.0	Barrett et al. (1985)
		1984	9/02	0	1	0	0	56	Ground survey - Fair, TRM 0.0	Barrett et al. (1985)
		1984	9/09	0	0	0	0	62	Ground survey - Good, TRM 0.0	Barrett et al. (1985)
		1984	9/16	0	0	0	0	71	Ground survey - Good, TRM 0.0	Barrett et al. (1985)
		1984	9/25	0	0	0	0	4	Ground survey - Good, TRM 0.0	Barrett et al. (1985)
		1984				236				ADF&G, SF
		1985				30				ADF&G, SF
		1986				25				ADF&G, SF
		1987				46				ADF&G, SF
		1988				63				ADF&G, SF
		1989				180				ADF&G, SF
		1990				36				
		1991				300				ADF&G, SF, Bartlett 91
		1992				167				ADF&G, SF, Whitmore
		1993				178				ADF&G, SF, Sweet (Pal
		1993		Present	Present	Present	Present	Present	Observed by genetics crew but not counted.	ADF&G, CF, Davis (Sol
		1994				224				ADF&G, SF, (Palmer)
		1995				127				ADF&G, SF, (Palmer)
		1996				458				ADF&G, SF, (Palmer)
	247-41-10200 -2320-3010-0010									
	Fish Lake	Hist							Max. counts 500 sockeye (1953)	
	(Birch Creek)	1972	8/18		107				Boat survey	Barrett (1973a)
	Talkeetna B-1	1973	8/21		251				Boat survey	Barrett (1973a)
		1973	8/31		205				Boat survey	Barrett (1973a)
		1973	9/07		158				Boat survey	Barrett (1973a)
		1973	9/16		158				Boat survey	Barrett (1973a)
		1974	8/23		43				Boat survey	Barrett (1975a)
		1974	8/29		95				Boat survey	Barrett (1975a)
		1974	9/04		67				Boat survey	Barrett (1975a)
		1974	9/16		67				Boat survey	Barrett (1975a)
		1975	8/21		70					ADF&G (1982)
		1975	8/26		93					ADF&G (1982)
		1975	8/29		113					ADF&G (1982)
		1975	9/05		132					ADF&G (1982)
		1975	9/23		46					ADF&G (1982)
		1975			187				Boat survey, Peak survey count	Friese (1976a)
		1976	8/24		82	17		48	Boat survey	Friese (1976b)
		1976	8/27		25	11		26		ADF&G (1982)
		1976	9/03		47			7		ADF&G (1982)
		1976	9/07		23			14		ADF&G (1982)
		1977			611				Peak survey count	Namtvedt et al. (1979)
		1978	8/22		79			42		ADF&G (1982)
		1978	9/25		242	28				ADF&G (1982)
		1978			299				Peak survey count	Waltemyer et al. (1980)
		1979			100				Low visibility, turbid H2O	Tarbox & Sanders (1980)
		1980	8/18		2,100					Tarbox & Sanders (1980)
		1981			176					Tarbox et al. (1983)
		1982			280					ADF&G, CF
		1983			1					King and Tarbox (1986)
		1984	8/08		26			10,055		ADF&G, CF
		1984	8/15		190			20,020		ADF&G, CF

Appendix A.1. Escapement surveys of adult salmon for systems with sockeye in the Northern District of Upper Cook Inlet.

#	Location Code/ Stream Name/ USGS Map No.	Year	Date	Chinook	Sockeye	Coho	Chum	Pink	Comments	Data Source
		1985			1					King and Tarbox (1986)
	247-41-10200 -2320-3010-4010 Talkeetna B-1									
	247-41-10200 -2341									Marcuson et al
	Trapper Creek	1983	7/29		3,000					
	Talkeetna B-1	1984	7/23	15	0	0	0	0	Ground survey, excellent, TRM 0.0	Barrett et al. (1985)
		1984	7/28	2	45	0	5	231	Ground survey - Fair, TRM 0.0	Barrett et al. (1985)
		1984	8/01	0	0	0	0	70	Ground survey - Fair, TRM 0.0	Barrett et al. (1985)
		1984	8/08	1	0	2	46	224	Ground survey - Fair, TRM 0.0	Barrett et al. (1985)
		1984	8/15	2	0	4	41	313	Ground survey - Fair, TRM 0.0	Barrett et al. (1985)
		1984	8/22	0	2	8	21	19	Ground survey - Poor, TRM 0.0	Barrett et al. (1985)
		1984	8/30	0	0	0	3	0	Ground survey - Poor, TRM 0.0	Barrett et al. (1985)
		1984	9/08	0	0	8	11	14	Ground survey - Good, TRM 0.0	Barrett et al. (1985)
		1984	9/15	0	0	21	14	7	Ground survey,excellent, TRM 0.0	Barrett et al. (1985)
		1984	9/24	0	0	3	13	2	Ground survey - Good, TRM 0.0	Barrett et al. (1985)
	247-41-10200 -2355 *								Note - TALK B-1	
	Cache Creek *	1984	7/23	0	0	0	0	0	Ground survey,excellent, TRM 0.0	Barrett et al. (1985)
	Talkeetna B-1	1984	7/28	0	0	0	0	0	Ground survey - Good, TRM 0.0	Barrett et al. (1985)
		1984	8/01	0	0	0	0	0	Ground survey - Good, TRM 0.0	Barrett et al. (1985)
		1984	8/08	0	0	0	0	0	Ground survey - Good, TRM 0.0	Barrett et al. (1985)
		1984	8/15	0	12	0	28	17	Ground survey - Good, TRM 0.0	Barrett et al. (1985)
		1984	8/22	0	0	0	3	14	Ground survey - Good, TRM 0.0	Barrett et al. (1985)
		1984	8/30	0	0	3	1	13	Ground survey - Poor, TRM 0.0	Barrett et al. (1985)
		1984	9/08	0	0	6	17	11	Ground survey - Good, TRM 0.0	Barrett et al. (1985)
		1984	9/15	0	0	13	37	0	Ground survey - Good, TRM 0.0	Barrett et al. (1985)
		1984	9/24	0	0	1	22	0	Ground survey - Good, TRM 0.0	Barrett et al. (1985)
		1989		362					Aerial, rotary wing	ADF&G, SF, Engle
		1990		484						ADF&G, SF, Engle
		1991		499						ADF&G, SF, Sweet 94)
		1992		487						ADF&G, SF, Sweet 94)
		1993		1,690						ADF&G, SF, Sweet 94)
	247-41-10200 -2391									
	Whiskers Creek	1974	8/30			27			Ground, boat & aerial cts. comb., peak ct.	Barrett (1974)
	Talkeetna B-1	1975	8/04	22						Friese (1975)
		1981	8/05	0	0	0	0	0	Ground survey, poor, 0.5 mi.	ADF&G (1981)
		1981	8/11	0	0	8	0	0	Ground survey, poor, 0.25 mi.	ADF&G (1981)
		1981	8/21	0	0	43	0	0	Ground survey, fair, 0.5 mi.	ADF&G (1981)
		1981	8/29	0	0	50	0	0	Ground survey, poor, 0.5 mi.	ADF&G (1981)
		1981	9/06	0	0	70	0	0	Ground survey, good, 0.5 mi.	ADF&G (1981)
		1981	9/17	0	0	9	1	1	Ground survey, fair, 0.5 mi.	ADF&G (1981)
		1981	9/24	0	0	18	0	1	Ground survey, good, 0.5 mi.	ADF&G (1981)
		1981	10/02	0	0	11	0	0	Ground survey, good, 0.5 mi.	ADF&G (1981)
		1982	8/08	0	0	5	0	73	Ground survey, excellent, 0.5 mi.	ADF&G (1983b)
		1982	8/13	0	0	39	0	27	Ground survey, excellent, 0.5 mi.	ADF&G (1983b)
		1982	8/18	0	0	82	0	47	Ground survey, poor, 0.25 mi.	ADF&G (1983b)
		1982	8/23	0	0	176	0	138	Ground Survey, excellent, 0.25 mi.	ADF&G (1983b)
		1982	9/21	0	0	0	0	0	Ground survey, poor, 0.5 mi.	ADF&G (1983b)
		1982	9/24	0	0	39	0	0	Ground survey, good, 10.0 mi.	ADF&G (1983b)
		1982	10/25	0	0	0	0	0	Ground survey, good, 0.8 mi.	ADF&G (1983b)
		1983	7/15	3	0	0	0	0	Ground Survey, excellent, 0.25 mi.	Barrett et al. (1984)
		1983	7/25	0	0	0	0	0	Ground Survey, excellent, 0.25 mi.	Barrett et al. (1984)
		1983	8/04	3	0	0	0	0	Ground survey, poor, 0.25 mi.	Barrett et al. (1984)
		1983	8/12	0	0	4	0	0	Ground survey, poor, 0.25 mi.	Barrett et al. (1984)
		1983	8/26	0	0	5	0	0	Ground survey, poor, 0.25 mi.	Barrett et al. (1984)
		1983	9/05	0	0	55	0	0	Ground Survey, excellent, 0.25 mi.	Barrett et al. (1984)
		1983	9/09	0	0	50	0	0	Ground survey, fair, 0.25 mi.	Barrett et al. (1984)
		1983	9/10	0	0	0	0	0	Ground survey, poor, 0.25 mi.	Barrett et al. (1984)
		1983	9/19	0	0	32	0	0	Ground Survey, excellent, 0.25 mi.	Barrett et al. (1984)
		1983	9/24	0	0	115	0	0	Aerial count, helicopter, exc. 8.0 mi.	Barrett et al. (1984)
		1983	10/01	0	0	0	0	0	Aerial count, helicopter, poor, 8.0 mi.	Barrett et al. (1984)
		1983	10/08	0	0	6	0	0	Aerial count, helicopter, good 8.0 mi.	Barrett et al. (1984)
		1984	7/22	67	0	0	0	0	Aerial count, helicopter , fair 8.0 mi.	Barrett et al. (1985)
		1984	9/01	0	0	90	0	0	Aerial count, helicopter, good, 8.0 mi.	Barrett et al. (1985)
		1984	9/08	0	0	301	0	0	Aerial count, helicopter, good, 8.0 mi.	Barrett et al. (1985)
		1984	9/15	0	0	33	0	0	Aerial count, helicopter , fair 8.0 mi.	Barrett et al. (1985)
		1984	9/22	0	0	217	0	0	Aerial count, helicopter, exc. 8.0 mi	Barrett et al. (1985)
		1984	9/29	0	0	273	0	0	Aerial count, helicopter, good, 8.0 mi.	Barrett et al. (1985)
		1984	10/13	0	0	46	0	0	Aerial count, helicopter, exc. 8.0 mi.	Barrett et al. (1985)
		1984	10/16	0	0	132	0	0	Aerial count, helicopter, good, 8.0 mi.	Barrett et al. (1985)
		1984	7/11	0	0	0	0	0	Ground survery, exc. 0.5 mi.	Barrett et al. (1985)
		1984	7/22	40	0	0	0	0	Ground survery, exc. 0.5 mi.	Barrett et al. (1985)
		1984	7/27	1	0	0	0	41	Ground survery, fair, 0.5 mi.	Barrett et al. (1985)
		1984	8/02	1	0	0	0	67	Ground survery, fair, 0.5 mi.	Barrett et al. (1985)
		1984	8/09	0	0	6	0	174	Ground survery, fair, 0.5 mi.	Barrett et al. (1985)
		1984	8/15	0	0	10	0	293	Grd. sur., ct. inc 27 Pink carcassas, exc. 0.5	Barrett et al. (1985)
		1984	8/26	0	0	0	0	10	Ground survey, poor, 0.5 mi.	Barrett et al. (1985)
		1984	9/06	0	0	45	0	16	Ground survery, exc. 0.5 mi.	Barrett et al. (1985)
		1984	9/17	0	0	117	0	0	Ground survery, good 0.5 mi.	Barrett et al. (1985)
		1984	9/24	0	0	18	0	0	Ground survery, good 0.5 mi.	Barrett et al. (1985)
		1984	9/30	0	0	22	0	0	Ground survery, exc. 0.5 mi.	Barrett et al. (1985)
		1984	10/07	0	0	38	0	0	Ground survery, exc. 0.5 mi.	Barrett et al. (1985)
		1985	7/25	103					Aerial includes two carcasses.	Thompson, M. Susitna Riv. Aquatic Studies Program, Rpt. no. 13, (1985)
		1985	9/04			443			Aerial, Coho count includes one carcass.	Thompson et al. (1986)

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Appendix A.1. Escapement surveys of adult salmon for systems with sockeye in the Northern District of Upper Cook Inlet.

#	Location Code/ Stream Name/ USGS Map No.	Year	Date	Chinook	Sockeye	Coho	Chum	Pink	Comments	Data Source
	-2391-3021									
	Talkeetna B-1									
	247-41-10200								Note - TALK B-1	
	-2420									
	Chase Creek *	1974	8/16&8/21		1				Ground, boat & aerial cnts. comb., peak ct.	Barrett (1974)
	Talkeetna B-1	1974	9/01			40			Ground, boat & aerial cnts. comb., peak ct.	Barrett (1974)
		1981	8/04	0	0	0	0	5	Ground survey , good, 0.75 mi.	ADF&G (1981)
		1981	8/11	0	0	23	1	38	Ground survey , good, 0.75 mi.	ADF&G (1981)
		1981	8/17	0	0	0	0	0	Ground survey, fair, 0.75 mi.	ADF&G (1981)
		1981	8/23	0	0	13	0	0	Ground survey , exc., 0.75 mi.	ADF&G (1981)
		1981	8/29	0	0	49	0	0	Ground survey , good, 0.75 mi.	ADF&G (1981)
		1981	9/07	0	0	80	1	0	Ground survey , exc., 0.75 mi.	ADF&G (1981)
		1981	9/14	0	0	62	1	9	Ground survey , good, 0.75 mi.	ADF&G (1981)
		1981	9/24	0	0	34	0	0	Ground survey , good, 0.75 mi.	ADF&G (1981)
		1981	10/02	0	0	21	0	0	Ground survey , good, 0.75 mi.	ADF&G (1981)
		1982	8/03	0	0	0	0	4	Ground survey , exc., 0.75 mi.	ADF&G (1983b)
		1982	8/11	15	0	0	0	96	Ground survey, good, 1.0 mi.	ADF&G (1983b)
		1982	8/20	2	0	0	0	107	Ground survey, exc., 1.0 mi.	ADF&G (1983b)
		1982	8/28	2	0	0	0	62	Ground survey, exc., 1.0 mi.	ADF&G (1983b)
		1982	9/06	0	0	0	0	4	Ground survey, good, 0.25 mi.	ADF&G (1983b)
		1982	9/17	0	0	1	0	0	Ground survey, good, 0.25 mi.	ADF&G (1983b)
		1982	9/21	0	0	3	0	0	Ground survey , exc., 0.75 mi.	ADF&G (1983b)
		1982	9/27	0	0	36	0	0	Ground survey, exc., 0.25 mi.	ADF&G (1983b)
		1982	10/25	0	0	0	0	0	Ground survey, fair, 0.25 mi.	ADF&G (1983b)
		1983	7/21	0	0	0	0	0	Ground survey , exc., 0.75 mi.	Barrett et al. (1984)
		1983	7/22	0	0	0	0	0	Ground survey, exc., 1.0 mi.	Barrett et al. (1984)
		1983	8/01	0	0	0	0	0	Ground survey , exc., 0.75 mi.	Barrett et al. (1984)
		1983	8/12	0	0	0	0	6	Ground survey , good, 0.75 mi.	Barrett et al. (1984)
		1983	8/27	0	0	0	0	0	Ground survey , exc., 0.75 mi.	Barrett et al. (1984)
		1983	9/06	0	0	0	0	0	Ground survey , exc., 0.75 mi.	Barrett et al. (1984)
		1983	9/19	0	0	0	0	0	Ground survey , exc., 0.75 mi.	Barrett et al. (1984)
		1983	9/24	0	0	12	0	0	Aerial count, helicopter, exc., 1.2 mi.	Barrett et al. (1984)
		1983	10/01	0	0	6	0	0	Aerial count, helicopter, good, 1.2 mi.	Barrett et al. (1984)
		1983	10/01	0	0	0	0	0	Ground survey , exc., 0.75 mi.	Barrett et al. (1984)
		1983	10/08	0	0	1	0	0	Aerial count, helicopter, exc., 1.2 mi.	Barrett et al. (1984)
		1983	10/05	0	0	1	0	0	Ground survey , exc., 0.75 mi.	Barrett et al. (1984)
		1984	9/01	0	0	120	0	0	Aerial count, helicopter, good, 2.0 mi.	Barrett et al. (1985)
		1984	9/08	0	0	95	0	0	Aerial count, helicopter, good, 2.0 mi.	Barrett et al. (1985)
		1984	9/15	0	0	70	0	0	Aerial count, helicopter, poor, 2.0 mi.	Barrett et al. (1985)
		1984	9/22	0	0	43	0	0	Aerial count, helicopter, good, 2.0 mi.	Barrett et al. (1985)
		1984	9/29	0	0	74	0	0	Aerial count, helicopter, good, 2.0 mi.	Barrett et al. (1985)
		1984	10/06	0	0	34	0	0	Aerial count, helicopter, good, 2.0 mi.	Barrett et al. (1985)
		1984	10/13	0	0	26	0	0	Aerial count, helicopter, exc., 0.75 mi.	Barrett et al. (1985)
		1984	7/12	0	0	0	0	0	Ground survey , exc., 0.75 mi.	Barrett et al. (1985)
		1984	7/27	0	0	0	0	41	Ground survey , exc., 0.75 mi.	Barrett et al. (1985)
		1984	8/02	1	0	0	0	49	Ground survey, fair, 0.75 mi.	Barrett et al. (1985)
		1984	8/09	2	0	2	0	68	Ground survey , good, 0.75 mi.	Barrett et al. (1985)
		1984	8/16	3	0	8	1	438	Grd sur., gd., 0.75 mi. cnt. inc. 192 Pink car	Barrett et al. (1985)
		1984	8/23	0	0	239	0	140	Ground survey , exc., 0.75 mi.	Barrett et al. (1985)
		1984	9/04	0	0	202	0	116	Ground survey , exc., 0.75 mi.	Barrett et al. (1985)
		1984	9/17	0	0	85	0	0	Ground survey , exc., 0.75 mi.	Barrett et al. (1985)
		1984	9/24	0	0	44	0	0	Ground survey , good, 0.75 mi.	Barrett et al. (1985)
		1984	9/30	0	0	42	0	0	Ground survey , exc., 0.75 mi.	Barrett et al. (1985)
		1984	10/07	0	0	32	0	0	Ground survey , exc., 0.75 mi.	Barrett et al. (1985)
		1984	10/14	0	0	10	0	0	Ground survey , exc., 0.75 mi.	Barrett et al. (1985)
		1985	7/21	31				4	Aerial	Thompson et al. (1986)
		1985	9/10			218			Aerial	Thompson et al. (1986)
	247-41-10200								Note - TALK B-1	
	-2426 *									
	Slash Creek *	1982	9/21	0	0	6	0	0	Ground survey , exc., 0.75 mi.	ADF&G (1983b)
	Talkeetna B-1	1982	10/25	0	0	0	0	0	Ground survey, good, 0.1 mi.	ADF&G (1983b)
		1983	7/27	0	0	0	0	0	Ground survey, exc., 0.25 mi.	Barrett et al. (1984)
		1983	8/05	0	0	0	0	0	Ground survey, exc., 0.25 mi.	Barrett et al. (1984)
		1983	8/15	0	0	0	0	0	Ground survey, exc., 0.25 mi.	Barrett et al. (1984)
		1983	8/22	0	0	0	0	0	Ground survey, exc., 0.25 mi.	Barrett et al. (1984)
		1983	8/29	0	0	0	0	0	Ground survey, exc., 0.25 mi.	Barrett et al. (1984)
		1983	9/05	0	0	0	0	0	Ground survey, exc., 0.25 mi.	Barrett et al. (1984)
		1983	9/12	0	0	0	0	0	Ground survey, exc., 0.25 mi.	Barrett et al. (1984)
		1983	9/19	0	0	0	0	0	Ground survey, exc., 0.25 mi.	Barrett et al. (1984)
		1983	10/02	0	0	2	0	0	Ground survey, exc., 0.25 mi.	Barrett et al. (1984)
		1984	7/23	0	0	0	0	0	Ground survey, exc., 0.25 mi.	Barrett et al. (1985)
		1984	7/30	0	0	0	0	0	Ground survey , fair, 0.25 mi.	Barrett et al. (1985)
		1984	8/07	0	0	0	0	0	Ground survey, exc., 0.25 mi.	Barrett et al. (1985)
		1984	8/14	0	0	0	0	0	Ground survey, exc., 0.25 mi.	Barrett et al. (1985)
		1984	8/21	0	0	0	0	0	Ground survey, exc., 0.25 mi.	Barrett et al. (1985)
		1984	8/27	0	0	0	0	3	Grd. sur., fair, 0.25 mi., ct. inc. 1 Pink carca	Barrett et al. (1985)
		1984	9/05	0	0	0	0	0	Ground survey , good, 0.25 mi.	Barrett et al. (1985)
		1984	9/16	0	0	0	0	0	Ground survey , good, 0.25 mi.	Barrett et al. (1985)
		1984	9/24	0	0	0	0	0	Ground survey , good, 0.25 mi.	Barrett et al. (1985)
		1984	9/30	0	0	5	0	0	Ground survey, exc., 0.25 mi.	Barrett et al. (1985)
		1984	10/07	0	0	0	0	0	Ground survey, exc., 0.25 mi.	Barrett et al. (1985)
		1985	9/16				5		Aerial	Thompson et al. (1986)
		1985	9/23			8			Aerial	Thompson et al. (1986)
	247-41-10200								Note - TALK C-1	
	-2435									
	Gash Creek *	1981	9/23	0	0	141	0	0	Ground survey , exc., 0.75 mi.	ADF&G (1981)
	Talkeetna C-1	1981	9/28	0	0	117	0	0	Ground survey , exc., 0.75 mi.	ADF&G (1981)
		1982	8/07	0	0	0	0	0	Ground survey, exc., 0.25 mi.	ADF&G (1983b)
		1982	8/19	0	0	0	0	0	Ground survey, exc., 0.25 mi.	ADF&G (1983b)
		1982	9/01	0	0	0	0	0	Ground survey, exc., 0.25 mi.	ADF&G (1983b)
		1982	9/07	0	0	0	0	0	Ground survey, exc., 0.25 mi.	ADF&G (1983b)
		1982	9/23	0	0	74	0	0	Ground survey, exc., 1.0 mi.	ADF&G (1983b)
		1982	9/27	0	0	67	0	0	Ground survey, exc., 1.0 mi.	ADF&G (1983b)

Appendix A.1. Escapement surveys of adult salmon for systems with sockeye in the Northern District of Upper Cook Inlet.

Location Code/ Stream Name/ USGS Map No.	Year	Date	Chinook	Sockeye	Coho	Chum	Pink	Comments	Data Source
	1982	10/02	0	0	22	0	0	Ground survey, exc., 1.0 mi.	ADF&G (1983b)
	1982	10/25	0	0	0	0	0	Ground survey, good, 0.25 mi.	ADF&G (1983b)
	1983	7/27	0	0	0	0	0	Ground survey, exc., 0.75 mi.	Barrett et al. (1984)
	1983	8/05	0	0	0	0	0	Ground survey, exc., 0.75 mi	Barrett et al. (1984)
	1983	8/15	0	0	0	0	0	Ground survey, exc., 0.75 mi.	Barrett et al. (1984)
	1983	8/22	0	0	0	0	0	Ground survey, exc., 0.75 mi.	Barrett et al. (1984)
	1983	8/29	0	0	0	0	0	Ground survey, exc., 0.75 mi.	Barrett et al. (1984)
	1983	9/05	0	0	0	0	0	Ground survey, exc., 0.75 mi.	Barrett et al. (1984)
	1983	9/12	0	0	0	0	0	Ground survey, exc., 0.75 mi.	Barrett et al. (1984)
	1983	9/19	0	0	19	0	0	Ground survey, exc., 0.75 mi.	Barrett et al. (1984)
	1983	10/02	0	0	16	0	0	Ground survey, exc., 0.75 mi.	Barrett et al. (1984)
	1984	9/01	0	0	14	0	0	Aerial count, helicopter, good, 3.0 mi.	Barrett et al. (1985)
	1984	7/23	0	0	0	0	0	Ground survey, exc., 3.0 mi.	Barrett et al. (1985)
	1984	7/30	0	0	0	0	0	Ground survey, fair, 3.0 mi.	Barrett et al. (1985)
	1984	8/07	0	0	0	0	0	Ground survey, exc., 3.0 mi.	Barrett et al. (1985)
	1984	8/14	0	0	0	0	0	Ground survey, exc., 3.0 mi.	Barrett et al. (1985)
	1984	8/21	0	0	0	0	6	Ground survey, Peak count, exc., 3.0 mi.	Barrett et al. (1985)
	1984	8/27	0	0	0	0	0	Ground survey, poor, 3.0 mi.	Barrett et al. (1985)
	1984	9/05	0	0	20	0	0	Ground survey, good, 3.0 mi.	Barrett et al. (1985)
	1984	9/16	0	0	61	0	0	Ground survey, good, 3.0 mi.	Barrett et al. (1985)
	1984	9/24	0	0	234	0	0	Ground survey, good, 3.0 mi.	Barrett et al. (1985)
	1984	9/30	0	0	192	0	0	Ground survey, exc., 3.0 mi.	Barrett et al. (1985)
	1984	10/07	0	0	127	0	0	Ground survey, exc., 3.0 mi.	Barrett et al. (1985)
	1984	10/14	0	0	71	0	0	Ground survey, exc., 3.0 mi.	Barrett et al. (1985)
	1985	8/25					2	Aerial	Thompson et al. (1986)
	1985	9/16			71			Aerial, Coho count includes one carcass.	Thompson et al. (1986)
247-41-10200 -2440									
Lane Creek	Hist							Chinook present	
Talkeetna C-1	1958	7/17	5					Suspected aerial count	Kubik (1964)
	1961	6/27	0					Aerial count	Kubik (1964)
	1962	7/19	0					Aerial count	Kubik (1964)
	1974	8/09					82	Ground, boat & aerial cnts. comb., peak ct.	Barrett (1974)
	1975	8/17					106	Ground, boat & aerial cnts. comb., peak ct.	Friese (1975)
	1975	8/17				3			AD...(1985c)-SUSONE.TAB
	1981	7/27	22					Aerial count, helicopter, fair	ADF&G (1981)
	1981	7/28	40					Aerial count, helicopter, good	ADF&G (1981)
	1981	8/19	0	0	0	9	53	Ground survey, fair, 0.5 mi.	ADF&G (1981)
	1981	8/23	0	0	0	76	291	Ground survey, exc., 1.0 mi.	ADF&G (1981)
	1981	8/29	0	0	0	17	43	Ground survey, exc., 0.5 mi.	ADF&G (1981)
	1981	9/05	0	0	0	44	0	Ground survey, exc., 0.5 mi.	ADF&G (1981)
	1981	9/13	0	0	0	24	6	Ground survey, exc., 0.5 mi.	ADF&G (1981)
	1981	9/21	0	0	3	1	1	Ground survey, exc., 0.5 mi.	ADF&G (1981)
	1981	9/28	0	0	1	0	0	Ground survey, exc., 0.5 mi.	ADF&G (1981)
	1982	7/12	47	0	0	0	0	Ground survey, exc. 0.7 mi.	ADF&G (1983b)
	1982	7/28	41	0	0	0	0	Ground survey, fair 2.5 mi.	ADF&G (1983b)
	1982	8/02	1	0	0	1	0	Ground survey, fair 0.25 mi.	ADF&G (1983b)
	1982	8/07	1	0	0	1	504	Ground survey, exc., 0.5 mi.	ADF&G (1983b)
	1982	8/13	0	0	1	1	610	Ground survey, exc., 0.5 mi.	ADF&G (1983b)
	1982	8/19	0	0	0	4	577	Ground survey, exc., 0.5 mi.	ADF&G (1983b)
	1982	8/25	0	0	0	11	576	Ground survey, exc., 0.5 mi.	ADF&G (1983b)
	1982	8/31	0	0	0	11	78	Ground survey, good, 0.5 mi.	ADF&G (1983b)
	1982	9/06	0	0	1	5	0	Ground survey, exc., 0.25 mi.	ADF&G (1983b)
	1982	9/14	0	0	5	1	0	Ground survey, exc., 0.5 mi.	ADF&G (1983b)
	1982	9/21	0	0	1	0	0	Ground survey, exc., 0.5 mi.	ADF&G (1983b)
	1982	10/25	0	0	0	0	0	Ground survey, exc., 0.25 mi.	ADF&G (1983b)
	1983	7/12	6	0	0	0	0	Ground survey, exc., 1.5 mi.	Barrett et al. (1984)
	1983	7/21	6	0	0	0	0	Ground survey, exc., 1.5 mi.	Barrett et al. (1984)
	1983	7/28	0	0	0	0	0	Ground survey, exc., 0.5 mi.	Barrett et al. (1984)
	1983	8/02	12	0	0	0	0	Aerial count, helicopter, exc., 1.5 mi.	Barrett et al. (1984)
	1983	8/05	6	0	0	0	5	Ground survey, exc. 0.25 mi.	Barrett et al. (1984)
	1983	8/15	0	0	0	6	28	Ground survey, exc. 0.25 mi.	Barrett et al. (1984)
	1983	8/22	0	0	0	3	28	Ground survey, exc. 0.25 mi.	Barrett et al. (1984)
	1983	8/29	0	0	0	1	14	Ground survey, exc. 0.25 mi.	Barrett et al. (1984)
	1983	9/05	0	0	0	0	0	Ground survey, exc. 0.25 mi.	Barrett et al. (1984)
	1983	9/12	0	0	0	0	0	Ground survey, exc. 0.25 mi.	Barrett et al. (1984)
	1983	9/19	0	0	2	0	0	Ground survey, exc. 0.25 mi.	Barrett et al. (1984)
	1983	9/24	0	0	1	0	0	Ground survey, exc. 0.25 mi.	Barrett et al. (1984)
	1983	10/01	0	0	0	0	0	Ground survey, exc. 0.25 mi.	Barrett et al. (1984)
	1983	10/08	0	0	0	0	0	Aerial count, helicopter, exc., 2.0 mi.	Barrett et al. (1984)
	1984	7/22	23	0	0	0	0	Aerial count, helicopter, exc., 5.0 mi.	Barrett et al. (1985)
	1984	7/23	4	0	0	0	0	Aerial count, helicopter, exc., 5.0 mi.	Barrett et al. (1985)
	1984	9/29	0	0	24	0	0	Aerial count, helicopter, good, 5.0 mi.	Barrett et al. (1985)
	1984	10/06	0	0	17	0	0	Aerial count, helicopter, good, 5.0 mi.	Barrett et al. (1985)
	1984	7/30	6	0	0	6	35	Ground survey, good, 0.25 mi.	Barrett et al. (1985)
	1984	8/07	1	0	0	25	686	Ground survey, fair, 0.25 mi.	Barrett et al. (1985)
	1984	8/14	0	0	0	16	1,184	Grd. sur., gd. 0.25 mi., Pink ct. inc. 37 carc	Barrett et al. (1985)
	1984	8/21	0	0	3	31	829	Ground survey, good, 0.25 mi.	Barrett et al. (1985)
	1984	8/27	0	0	0	0	0	Ground survey, poor, 0.25 mi.	Barrett et al. (1985)
	1984	9/05	0	0	0	2	0	Ground survey,exc., 0.25 mi.	Barrett et al. (1985)
	1984	9/16	0	0	1	0	0	Ground survey, good, 0.25 mi.	Barrett et al. (1985)
	1984	9/24	0	0	2	0	0	Ground survey, good, 0.25 mi.	Barrett et al. (1985)
	1984	9/30	0	0	2	0	0	Ground survey,exc., 0.25 mi.	Barrett et al. (1985)
	1984	10/05	0	0	8	0	0	Ground survey,exc., 0.25 mi.	Barrett et al. (1985)
	1985	7/21	17				127	Aerial, Pink count includes two carcasses.	Thompson et al. (1986)
	1985	8/11				1		Aerial	Thompson et al. (1986)
	1985	9/26			13			Aerial	Thompson et al. (1986)
247-41-10200 -2441 *								Note - TALK C-1	
Clyde Creek *	1984	8/07	0	0	8	0	4	Ground survey, good, 0.25 mi.	Barrett et al. (1985)
Talkeetna C-1	1984	8/14	0	0	8	0	10	Ground survey,exc., 0.25 mi.	Barrett et al. (1985)
	1984	8/21	0	0	8	0	34	Ground survey,exc., 0.25 mi.	Barrett et al. (1985)
	1984	8/27	0	0	8	0	5	Ground survey, fair, 0.25 mi.	Barrett et al. (1985)
	1984	9/05	0	0	8	0	0	Ground survey, good, 0.25 mi.	Barrett et al. (1985)

Appendix A.1. Escapement surveys of adult salmon for systems with sockeye in the Northern District of Upper Cook Inlet

#	Location Code/ Stream Name/ USGS Map No.	Year	Date	Chinook	Sockeye	Coho	Chum	Pink	Comments	Data Source
		1984	9/16	0	0	8	0	0	Ground survey, good, 0.25 mi.	Barrett et al. (1985)
		1984	9/24	0	0	8	0	0	Ground survey, good, 0.25 mi.	Barrett et al. (1985)
		1984	9/30	0	0	8	0	0	Ground survey, exc., 0.25 mi.	Barrett et al. (1985)
		1985	8/18					7	Aerial	Thompson et al. (1986)
	247-41-10200								Note - TALK C-1	
	-2443 *									
	Maggot Creek *	1984	8/07	0	0	0	0	107	Ground survey, good, 0.25 mi.	Barrett et al. (1985)
	Talkeetna C-1	1984	8/14	0	0	0	0	68	Ground survey, exc., 0.25 mi.	Barrett et al. (1985)
		1984	8/21	0	0	0	0	48	Ground survey, exc., 0.25 mi.	Barrett et al. (1985)
		1984	8/27	0	0	0	0	0	Ground survey, poor, 0.25 mi.	Barrett et al. (1985)
		1984	9/05	0	0	0	0	0	Ground survey, good, 0.25 mi.	Barrett et al. (1985)
		1984	9/16	0	0	0	0	0	Ground survey, good, 0.25 mi.	Barrett et al. (1985)
		1984	9/24	0	0	0	0	0	Ground survey, good, 0.25 mi.	Barrett et al. (1985)
		1985	8/18					4	Aerial	Thompson et al. (1986)
	247-41-10200								Note - TALK C-1	
	-2444									
	Lower McKenzie	1981	8/23	0	1	56	14	0	Ground survey, exc., 0.25 mi.	ADF&G (1981)
	Creek *	1981	8/29	0	0	0	12	0	Ground survey, exc., 0.25 mi.	ADF&G (1981)
	Talkeetna C-1	1981	9/05	0	0	0	2	0	Ground survey, exc., 0.25 mi.	ADF&G (1981)
		1981	9/13	0	0	6	1	0	Ground survey, exc., 0.25 mi.	ADF&G (1981)
		1981	9/21	0	0	2	0	0	Ground survey, exc., 0.25 mi.	ADF&G (1981)
		1981	9/28	0	0	2	1	0	Ground survey, exc., 0.25 mi.	ADF&G (1981)
		1982	8/07	0	0	0	0	0	Ground survey, exc., 0.25 mi.	ADF&G (1983b)
		1982	8/13	0	0	0	0	0	Ground survey, exc., 0.25 mi.	ADF&G (1983b)
		1982	8/19	0	0	0	0	23	Ground survey, exc., 0.25 mi.	ADF&G (1983b)
		1982	8/25	0	0	0	0	6	Ground survey, exc., 0.25 mi.	ADF&G (1983b)
		1982	8/31	0	0	0	0	0	Ground survey, exc., 0.25 mi.	ADF&G (1983b)
		1982	9/06	0	0	0	0	0	Ground survey, exc., 0.25 mi.	ADF&G (1983b)
		1982	9/14	0	0	133	0	0	Ground survey, exc., 1.5 mi.	ADF&G (1983b)
		1982	9/21	0	0	103	0	0	Ground survey, good, 1.5 mi.	ADF&G (1983b)
		1982	9/27	0	0	90	0	0	Ground survey, exc., 1.0 mi.	ADF&G (1983b)
		1982	10/02	0	0	34	0	0	Ground survey, exc., 1.0 mi.	ADF&G (1983b)
		1982	10/25	0	0	0	0	0	Ground survey, exc., 0.25 mi.	ADF&G (1983b)
		1983	7/27	0	0	0	0	0	Ground survey, exc., 0.75 mi.	Barrett et al. (1984)
		1983	8/05	0	0	0	0	0	Ground survey, exc., 0.75 mi.	Barrett et al. (1984)
		1983	8/15	0	0	0	1	17	Ground survey, exc., 0.75 mi.	Barrett et al. (1984)
		1983	8/22	0	0	0	1	5	Ground survey, exc., 0.75 mi.	Barrett et al. (1984)
		1983	8/29	0	0	0	0	1	Ground survey, exc., 0.75 mi.	Barrett et al. (1984)
		1983	9/05	0	0	0	0	0	Ground survey, exc., 0.75 mi.	Barrett et al. (1984)
		1983	9/12	0	0	0	0	0	Ground survey, exc., 0.75 mi.	Barrett et al. (1984)
		1983	9/19	0	0	4	0	0	Ground survey, exc., 0.75 mi.	Barrett et al. (1984)
		1983	9/24	0	0	5	0	0	Ground survey, fair, 3.0 mi.	Barrett et al. (1984)
		1983	10/01	0	0	18	0	0	Ground survey, exc., 0.75 mi.	Barrett et al. (1984)
		1983	10/08	0	0	0	0	0	Aerial count, helicopter, exc., 2.0 mi.	Barrett et al. (1984)
		1983	10/08	0	0	4	0	0	Ground survey, exc., 0.75 mi.	Barrett et al. (1984)
		1984	9/29	0	0	3	0	0	Aerial count, helicopter, good, 2.0 mi.	Barrett et al. (1985)
		1984	7/30	0	0	0	0	585	Ground survey, good, 0.25 mi.	Barrett et al. (1985)
		1984	8/07	0	0	0	0	226	Ground survey, exc., 0.25 mi.	Barrett et al. (1985)
		1984	8/14	0	0	0	0	115	Ground survey, exc., 0.25 mi.	Barrett et al. (1985)
		1984	8/21	0	0	0	0	71	Ground survey, exc., 0.25 mi.	Barrett et al. (1985)
		1984	8/27	0	0	24	23	4	Ground survey, fair, 0.25 mi.	Barrett et al. (1985)
		1984	9/05	0	0	0	0	0	Ground survey, good, 0.25 mi.	Barrett et al. (1985)
		1984	9/16	0	0	0	0	0	Ground survey, good, 0.25 mi.	Barrett et al. (1985)
		1984	9/24	0	0	9	0	0	Ground survey, good, 0.25 mi.	Barrett et al. (1985)
		1984	9/30	0	0	10	0	0	Ground survey, good, 0.25 mi.	Barrett et al. (1985)
		1984	10/05	0	0	0	0	0	Ground survey, exc., 0.25 mi.	Barrett et al. (1985)
		1985	8/18					3	Aerial	Thompson et al. (1986)
		1985	9/30			50			Aerial. Coho count includes nine carcasses.	Thompson et al. (1986)
	247-41-10200									
	-2450									
	McKenzie Creek	1961	6/27	0					Suspected aerial count	Kubik (1964)
	Talkeetna C-1	1962	7/19	0					Suspected aerial count	Kubik (1964)
		1975	9/27		45					Fnese (1975)
		1981	8/11	0	0	0	0	0	Ground survey, exc., 0.5 mi.	ADF&G (1981)
		1981	8/23	0	0	0	0	0	Ground survey, exc., 0.5 mi.	ADF&G (1981)
		1982	8/07	0	0	0	0	0	Ground survey, exc., 0.25 mi.	ADF&G (1983b)
		1982	8/13	0	0	0	0	0	Ground survey, exc., 0.25 mi.	ADF&G (1983b)
		1982	8/19	0	0	0	0	17	Ground survey, exc., 0.25 mi.	ADF&G (1983b)
		1982	8/25	0	0	0	0	7	Ground survey, exc., 0.25 mi.	ADF&G (1983b)
		1982	8/31	0	0	0	0	0	Ground survey, exc., 0.25 mi.	ADF&G (1983b)
		1982	9/06	0	0	0	0	0	Ground survey, exc., 0.25 mi.	ADF&G (1983b)
		1982	9/14	0	0	0	0	0	Ground survey, exc., 0.25 mi.	ADF&G (1983b)
		1982	9/21	0	0	0	0	0	Ground survey, good, 0.25 mi.	ADF&G (1983b)
		1982	9/22	0	0	0	0	0	Ground survey, good, 0.25 mi.	ADF&G (1983b)
		1982	10/02	0	0	0	0	0	Ground survey, exc., 0.25 mi.	ADF&G (1983b)
		1982	10/25	0	0	0	0	0	Ground survey, fair, 0.1 mi.	ADF&G (1983b)
		1983	7/27	0	0	0	0	0	Ground survey, exc., 0.25 mi.	Barrett et al. (1984)
		1983	8/05	0	0	0	0	0	Ground survey, exc., 0.25 mi.	Barrett et al. (1984)
		1983	8/15	0	0	0	0	0	Ground survey, exc., 0.25 mi.	Barrett et al. (1984)
		1983	8/22	0	0	0	0	0	Ground survey, exc., 0.25 mi.	Barrett et al. (1984)
		1983	8/29	0	0	0	0	0	Ground survey, exc., 0.25 mi.	Barrett et al. (1984)
		1983	9/05	0	0	0	0	0	Ground survey, exc., 0.25 mi.	Barrett et al. (1984)
		1983	9/12	0	0	0	0	0	Ground survey, exc., 0.25 mi.	Barrett et al. (1984)
		1983	9/19	0	0	0	0	0	Ground survey, exc., 0.25 mi.	Barrett et al. (1984)
		1983	10/01	0	0	0	0	0	Ground survey, exc., 0.25 mi.	Barrett et al. (1984)
		1984	7/30	0	0	0	0	0	Ground survey, good, 0.25 mi.	Barrett et al. (1985)
		1984	8/07	0	0	0	0	11	Ground survey, exc., 0.25 mi.	Barrett et al. (1985)
		1984	8/14	0	0	0	0	7	Ground survey, good, 0.25 mi.	Barrett et al. (1985)
		1984	8/21	0	0	0	0	5	Ground survey, exc., 0.25 mi.	Barrett et al. (1985)
		1984	8/27	0	0	0	0	0	Ground survey, poor, 0.25 mi.	Barrett et al. (1985)
		1984	9/05	0	0	0	0	0	Ground survey, good, 0.25 mi.	Barrett et al. (1985)
		1984	9/16	0	0	0	0	0	Ground survey, good, 0.25 mi.	Barrett et al. (1985)
		1984	9/24	0	0	0	0	0	Ground survey, poor, 0.25 mi.	Barrett et al. (1985)

Appendix A.1. Escapement surveys of adult salmon for systems with sockeye in the Northern District of Upper Cook Inlet.

#	Location Code/ Stream Name/ USGS Map No.	Year	Date	Chinook	Sockeye	Coho	Chum	Pink	Comments	Data Source
		1985	8/18					2	Aerial. Upper McKinzie Creek in report	Thompson et al. (1986)
		1985	9/09				1		Aerial. Upper McKinzie Creek in report Chum counted was a carcass. Note - TALK C-1	Thompson et al. (1986)
	247-41-10200 -2454 * Little Portage Creek * Talkeetna C-1	1982	8/07	0	0	0	0	40	Ground survey, exc., 0.25 mi.	ADF&G (1983b)
		1982	8/13	0	0	0	0	140	Ground survey, exc., 0.25 mi.	ADF&G (1983b)
		1982	8/19	0	0	0	0	74	Ground survey, exc., 0.25 mi.	ADF&G (1983b)
		1982	8/25	0	0	0	31	61	Ground survey, exc., 0.25 mi.	ADF&G (1983b)
		1982	8/31	0	0	0	5	9	Ground survey, exc., 0.25 mi.	ADF&G (1983b)
		1982	9/06	0	0	0	25	0	Ground survey, exc., 0.25 mi.	ADF&G (1983b)
		1982	9/14	0	0	0	0	0	Ground survey, exc., 0.25 mi.	ADF&G (1983b)
		1982	9/21	0	0	6	0	0	Ground survey, good, 0.25 mi.	ADF&G (1983b)
		1982	9/27	0	0	8	0	0	Ground survey, exc., 0.25 mi.	ADF&G (1983b)
		1982	10/02	0	0	8	0	0	Ground survey, exc., 0.25 mi.	ADF&G (1983b)
		1982	10/25	0	0	0	0	0	Ground survey, good, 0.1 mi	ADF&G (1983b)
		1983	7/27	0	0	0	0	0	Ground survey, exc., 0.25 mi.	Barrett et al. (1984)
		1983	8/05	0	0	0	0	0	Ground survey, exc., 0.25 mi.	Barrett et al. (1984)
		1983	8/15	0	0	0	0	0	Ground survey, exc., 0.25 mi.	Barrett et al. (1984)
		1983	8/22	0	0	0	0	7	Ground survey, fair, 0.25 mi	Barrett et al. (1984)
		1983	8/29	0	0	0	0	3	Ground survey, exc., 0.25 mi.	Barrett et al. (1984)
		1983	9/05	0	0	0	0	0	Ground survey, exc., 0.25 mi.	Barrett et al. (1984)
		1983	9/12	0	0	0	0	0	Ground survey, exc., 0.25 mi.	Barrett et al. (1984)
		1983	9/19	0	0	0	0	0	Ground survey, exc., 0.25 mi.	Barrett et al. (1984)
		1983	10/01	0	0	0	0	0	Ground survey, exc., 0.25 mi.	Barrett et al. (1984)
		1983	10/08	0	0	0	0	0	Ground survey, exc., 0.25 mi.	Barrett et al. (1984)
		1984	7/23	0	0	0	0	0	Ground survey, exc., 0.25 mi.	Barrett et al. (1985)
		1984	7/30	0	0	0	0	1	Ground survey, poor, 0.25 mi.	Barrett et al. (1985)
		1984	8/07	0	0	0	0	8	Ground survey, exc., 0.25 mi.	Barrett et al. (1985)
		1984	8/13	0	0	0	2	157	Ground survey, poor, 0.25 mi.	Barrett et al. (1985)
		1984	8/20	0	0	0	18	162	Grd. sur., gd. 0.25 mi.,Pink ct. inc. 14 carca	Barrett et al. (1985)
		1984	8/27	0	0	0	0	26	Ground survey, poor, 0.25 mi.	Barrett et al. (1985)
		1984	9/05	0	0	0	8	0	Ground survey, good, 0.25 mi.	Barrett et al. (1985)
		1984	9/16	0	0	0	2	0	Ground survey, good, 0.25 mi.	Barrett et al. (1985)
		1984	9/24	0	0	0	0	0	Ground survey, exc., 0.25 mi.	Barrett et al. (1985)
		1985	8/18					7	Aerial, Pink count includes one carcass.	Thompson et al. (1986)
		1985	8/25				4		Aerial	Thompson et al. (1986)
		1985	9/23			2			Aerial	Thompson et al. (1986)
	247-41-10200 -2462 * Deadhorse Creek * Talkeetna C-1								Note - TALK C-1	
		1962	7/19	0					Aerial count	Kubik (1964)
		1981	8/11	0	0	0	0	0	Ground survey, RM 120.9, exc., 0.5 mi.	ADF&G (1981)
		1981	8/25	0	0	0	0	0	Ground survey, exc., 0.5 mi.	ADF&G (1981)
		1983	8/15	0	0	0	0	0	Ground survey, exc., 0.25 mi.	Barrett et al. (1984)
		1983	8/22	0	0	0	0	0	Ground survey, exc., 0.25 mi.	Barrett et al. (1984)
		1983	8/30	0	0	0	0	0	Ground survey, exc., 0.25 mi.	Barrett et al. (1984)
		1983	9/06	0	0	0	0	0	Ground survey, exc., 0.25 mi.	Barrett et al. (1984)
		1983	9/13	0	0	0	0	0	Ground survey, exc., 0.25 mi.	Barrett et al. (1984)
		1983	9/17	0	0	0	0	0	Ground survey, exc., 0.25 mi.	Barrett et al. (1984)
		1983	9/25	0	0	0	0	0	Ground survey, exc., 0.25 mi.	Barrett et al. (1984)
		1983	10/01	0	0	0	0	0	Ground survey, exc., 0.25 mi.	Barrett et al. (1984)
		1983	10/08	0	0	0	0	0	Ground survey, exc., 0.25 mi.	Barrett et al. (1984)
		1984	8/06	0	0	0	0	41	Ground survey, good, 0.25 mi	Barrett et al. (1985)
		1984	8/13	0	0	0	0	337	Grd. sur., exc., 1.5 mi., Pink ct. inc. 10 carc	Barrett et al. (1985)
		1984	8/20	0	0	0	0	0	Ground survey, poor, 0.25 mi.	Barrett et al. (1985)
		1984	8/27	0	0	0	0	0	Ground survey, poor, 0.25 mi.	Barrett et al. (1985)
		1984	9/08	0	0	0	0	0	Ground survey, good, 0.25 mi.	Barrett et al. (1985)
		1984	9/13	0	0	0	0	0	Ground survey, exc., 0.25 mi.	Barrett et al. (1985)
		1984	9/22	0	0	0	0	0	Ground survey, exc., 0.25 mi.	Barrett et al. (1985)
	247-41-10200 -2470 Talk. Mtns. C-6									
	247-41-10200 -2471 Fifth of July Creek * Talk. Mtns. C-6	1981	8/11	0	0	0	0	2	Ground survey, exc., 0.5 mi	ADF&G (1981)
		1982	8/06	3	0	0	1	17	Ground survey, exc., 0.5 mi.	ADF&G (1983b)
		1982	8/12	0	0	0	0	61	Ground survey, exc., 0.25 mi.	ADF&G (1983b)
		1982	8/19	0	0	0	0	113	Ground survey, exc., 0.25 mi	ADF&G (1983b)
		1982	8/25	0	0	0	0	29	Ground survey, exc., 0.25 mi.	ADF&G (1983b)
		1982	8/31	0	0	0	0	0	Ground survey, good, 0.25 mi	ADF&G (1983b)
		1982	9/06	0	0	0	0	0	Ground survey, exc., 0.25 mi.	ADF&G (1983b)
		1982	9/14	0	0	0	0	0	Ground survey, exc., 0.25 mi.	ADF&G (1983b)
		1982	9/20	0	0	0	0	0	Ground survey, exc., 0.25 mi.	ADF&G (1983b)
		1982	10/25	0	0	0	0	0	Ground survey, poor, 0.2 mi	ADF&G (1983b)
		1983	7/21	0	0	0	0	0	Ground survey, exc., 0.25 mi	Barrett et al. (1984)
		1983	7/26	0	0	0	0	0	Ground survey, exc., 0.25 mi.	Barrett et al. (1984)
		1983	8/05	0	0	0	6	0	Ground survey, exc., 0.25 mi	Barrett et al. (1984)
		1983	8/13	0	0	0	0	9	Ground survey, good, 0.25 mi.	Barrett et al. (1984)
		1983	8/20	0	0	0	0	6	Ground survey, exc., 0.25 mi	Barrett et al. (1984)
		1983	8/27	0	0	0	0	3	Ground survey, exc., 0.25 mi.	Barrett et al. (1984)
		1983	9/03	0	0	0	0	0	Ground survey, good, 0.25 mi	Barrett et al. (1984)
		1983	9/11	0	0	0	0	0	Ground survey, exc., 0.25 mi.	Barrett et al. (1984)
		1983	9/18	0	0	0	0	0	Ground survey, exc., 0.25 mi.	Barrett et al. (1984)
		1983	10/01	0	0	0	0	0	Ground survey, poor, 0.2 mi	Barrett et al. (1984)
		1983	10/08	0	0	0	0	0	Aerial count, helicopter, exc., 0.25 mi.	Barrett et al. (1984)
		1984	7/22	10	0	0	0	0	Aerial count, helicopter, good, 0.5 mi	Barrett et al. (1985)
		1984	7/22	0	0	0	0	0	Ground survey, exc., 0.25 mi.	Barrett et al. (1985)
		1984	7/23	17	0	0	0	0	Ground survey, exc., 0.25 mi.	Barrett et al. (1985)
		1984	7/30	5	0	0	0	4	Ground survey, poor, 0.25 mi.	Barrett et al. (1985)
		1984	8/06	0	0	0	2	171	Ground survey, exc., 0.25 mi.	Barrett et al. (1985)
		1984	8/13	0	0	0	1	411	Grd. sur., gd., 0.25 mi., Pink ct. inc. 20 carc	Barrett et al. (1985)
		1984	8/20	0	0	0	1	222	Ground survey, good, 0.25 mi.	Barrett et al. (1985)

Appendix A.1. Escapement surveys of adult salmon for systems with sockeye in the Northern District of Upper Cook Inlet.

#	Location Code/ Stream Name/ USGS Map No.	Year	Date	Chinook	Sockeye	Coho	Chum	Pink	Comments	Data Source
		1984	8/26	0	0	0	0	0	Ground survey, poor, 0.25 mi.	Barrett et al. (1985)
		1984	9/04	0	0	0	0	0	Ground survey, exc., 0.25 mi.	Barrett et al. (1985)
		1984	9/11	0	0	0	0	0	Ground survey, exc., 0.25 mi.	Barrett et al. (1985)
		1984	9/21	0	0	0	0	0	Ground survey, exc., 0.25 mi.	Barrett et al. (1985)
		1984	9/28	0	0	0	0	0	Ground survey, exc., 0.25 mi.	Barrett et al. (1985)
		1984	10/05	0	0	0	0	0	Ground survey, exc., 0.25 mi.	Barrett et al. (1985)
		1985	7/26	21				36	Aerial. Pink count includes one carcass	Thompson et al. (1986)
	247-41-10200 -2474									
	Skull Creek *	1981	8/11	0	0	0	10	0	Ground survey, exc., 0.5 mi.	ADF&G (1981)
	Talk. Mtns. C-6	1981	8/19	0	0	0	0	6	Ground survey, exc., 0.5 mi.	ADF&G (1981)
		1981	8/20	0	0	0	0	8	Ground survey, exc., 0.5 mi.	ADF&G (1981)
		1982	8/06	0	0	0	0	0	Ground survey, exc., 0.25 mi.	ADF&G (1983b)
		1982	8/12	0	0	0	0	12	Ground survey, exc., 0.5 mi.	ADF&G (1983b)
		1982	8/17	0	0	0	0	12	Ground survey, exc., 0.5 mi.	ADF&G (1983b)
		1982	8/23	0	0	0	0	11	Ground survey, exc., 0.5 mi.	ADF&G (1983b)
		1982	8/31	0	0	0	1	0	Ground survey, good, 0.25 mi.	ADF&G (1983b)
		1982	9/06	0	0	0	0	0	Ground survey, exc., 0.25 mi.	ADF&G (1983b)
		1982	9/13	0	0	0	0	0	Ground survey, exc., 0.25 mi.	ADF&G (1983b)
		1982	9/19	0	0	0	0	0	Ground survey, fair, 0.25 mi.	ADF&G (1983b)
		1982	10/25	0	0	0	0	0	Ground survey, exc., 0.1 mi.	ADF&G (1983b)
		1983	8/05	0	0	0	0	0	Ground survey, exc., 0.25 mi.	Barrett et al. (1984)
		1983	8/13	0	0	0	0	0	Ground survey, exc., 0.25 mi.	Barrett et al. (1984)
		1983	8/20	0	0	0	0	1	Ground survey, exc., 0.25 mi.	Barrett et al. (1984)
		1983	8/27	0	0	0				
	247-41-10200-2585 Portage Creek									
	Talk. Mtns. D-5	1979		190						ADF&G, SF, Palmer 93
		1980							No survey conducted	ADF&G, SF, Palmer 93
		1981		659						ADF&G, SF, Palmer 93
		1982		1,111						ADF&G, SF, Palmer 93
		1983		3,140						ADF&G, SF, Palmer 93
		1984		2,341						ADF&G, SF, Palmer 93
		1985							Included w/other streams	ADF&G, SF, Palmer 93
		1986							No survey conducted	ADF&G, SF, Palmer 93
		1987		2,616						ADF&G, SF, Palmer 93
		1988		1,402						ADF&G, SF, Palmer 93
		1989		1,309						ADF&G, SF, Palmer 93
		1990		1,886						ADF&G, SF, Palmer 93
		1991		1,223						ADF&G, SF, Palmer 93
		1992		1,078						ADF&G, SF, Palmer 93
		1993		629						ADF&G, SF, Palmer 93
		1994		857						ADF&G,SF,Palmer
		1995		1,505						ADF&G,SF,Palmer
		1996		2,185						ADF&G,SF,Palmer, 96
	247-41-10200-2551 Indian River									
	Talk. Mtns. D-6, D-5	1979		285						ADF&G, SF, Palmer 93
		1980							No survey conducted	ADF&G, SF, Palmer 93
		1981		422						ADF&G, SF, Palmer 93
		1982		1,053						ADF&G, SF, Palmer 93
		1983		1,193						ADF&G, SF, Palmer 93
		1984		1,456						ADF&G, SF, Palmer 93
		1985							Included w/other streams	ADF&G, SF, Palmer 93
		1986							No survey conducted	ADF&G, SF, Palmer 93
		1987		1,246						ADF&G, SF, Palmer 93
		1988		456						ADF&G, SF, Palmer 93
		1989		659						ADF&G, SF, Palmer 93
		1990		1,473						ADF&G, SF, Palmer 93
		1991		1,468						ADF&G, SF, Palmer 93
		1992		479						ADF&G, SF, Palmer 93
		1993		362						ADF&G, SF, Palmer 93
		1994		336						ADF&G, SF, Palmer 93
		1995		796						ADF&G, SF, Palmer 93
		1996		579						ADF&G, SF, Palmer 96
Yentna River Drainage										
	247-41-10200-2053									
	Yentna River	1974	7/13-8/17		54,978				Mark-recapture, Modified Peterson	Barrett (1975b)
	Tyonek C-2	1974	7/13-8/14		3,746	1,036	345	2,534	Yentna Station fishwheel catch	Barrett (1975b)
	Talkeetna B-4									
	Yentna Station	1981	6/29-9/07	9	139,401	17,017	19,765	36,054	Side scan sonar, Escapement estimate	ADF&G (1981)
		1982	6/27-9/05	0	113,847	34,089	27,830	447,167	Side scan sonar, Escapement estimate	ADF&G (1983a)
		1983	6/30-9/05	0	104,414	8,867	10,892	60,661	Side scan sonar, Escapement estimate	Barrett et al. (1984)
		1984	7/01-9/05	390	149,375	18,167	26,508	369,299	Side scan sonar, Escapement estimate	Barrett et al. (1985)
		1985	7/01-8/08	404	107,124	9,181	12,092	120,990	Side scan sonar, Escapement estimate	ADF&G, CF, King
		1986	6/29-8/07	1,112	92,076	23,457	56,656	673,901	Side scan sonar, Escapement estimate	ADF&G, CF, King
		1987	7/01-8/14	407	66,054	6,279	17,859	84,099	Side scan sonar, Escapement estimate	ADF&G, CF, King
		1988	7/07-8/11	444	52,330	12,173	49,074	137,027	Side scan sonar, Escapement estimate	ADF&G, CF, King
		1989	7/07-8/20	393	96,269	25,695	63,379	173,698	Side scan sonar, Escapement estimate	ADF&G, CF, King
		1990	7/07-8/12	607	140,290	21,316	33,566	244,569	Escapement estimate (sonar)	ADF&G, CF, King
		1991	7/07-8/12	204	109,632	57,275	21,655	75,377	Escapement estimate (sonar)	ADF&G, CF, King
		1992	7/07-8/11	107	66,053	29,073	30,062	239,378	Escapement estimate (sonar)	ADF&G, CF, Davis
		1993	7/07-8/07	363	141,694	37,752	28,021	227,171	Escapement estimate (sonar)	ADF&G, CF, Davis
		1994	7/07-8/12	226	128,032	25,173	18,971	79,178	Escapement estimate (sonar)	ADF&G, CF, Davis
		1995	7/07-8/10	346	121,229	74,346	31,421	161,057	Escapement estimate (sonar)	ADF&G, CF, Davis
		1996	7/07-8/07	345	90,781	35,463	21,180	99,389	Escapement estimate (sonar)	ADF&G, CF, Davis
		1997*	7/6-8/12		157,900	13,681			Escapement estimate (sonar)	ADF&G, CF, Davis
		1997 data is inseason, no estimate of chinook, pink or chum yet								
	247-41-10200									

Appendix A.1. Escapement surveys of adult salmon for systems with sockeye in the Northern District of Upper Cook Inlet.

#	Location Code/ Stream Name/ USGS Map No.	Year	Date	Chinook	Sockeye	Coho	Chum	Pink	Comments	Data Source
	-2053-3020									
	Kroto Slough									
	Tyonek C-2									
									Note - TYONEK C-2	
	247-41-10200									
	-2053-3020-4029*									
	Whitsol Creek *	1984	9/10	0	0	55	0	0	Aerial count, helicopter, good, TRM 0.0	Barrett et al. (1985)
	Tyonek C-2	1984	9/27	0	0	20	0	0	Aerial count, helicopter, good, TRM 0.0	Barrett et al. (1985)
		1984	10/06	0	0	0	0	0	Aerial count, helicopter, good, TRM 0.0	Barrett et al. (1985)
		1984	7/31	0	0	0	0	0	Ground survey, poor, TRM 0.0	Barrett et al. (1985)
		1984	8/09	0	0	0	0	0	Ground survey, poor/good, TRM 0.0	Barrett et al. (1985)
		1984	8/19	0	0	0	0	0	Ground survey, poor, TRM 0.0	Barrett et al. (1985)
		1984	8/25	0	0	0	0	0	Ground survey, poor, TRM 0.0	Barrett et al. (1985)
		1984	9/20	0	0	30	0	0	Ground survey, fair, TRM 0.0	Barrett et al. (1985)
	247-41-10200									
	-2053-3020-0010									
	Whitsol Lake									
	Tyonek C-2									
	247-41-10200									
	-2053-3020-4015									
	Fish Creek	1961	6/08	0					Suspect aerial count	Kubik (1964)
	Tyonek C-2	1962	7/03	0					Suspect aerial count	Kubik (1964)
		1963	8/14	0					Suspect aerial count	Kubik (1964)
		1977		132					Aerial count	Kubik & Wadman (1978)
	247-41-10200									
	-2053-3100									
	Moose Creek	1958	7/11	0					Suspect aerial count	Kubik (1964)
	Tyonek D-2	1961	6/29	0					Aerial count	Kubik (1964)
		1962	7/05	0					Aerial count	Kubik (1964)
		1963	6/27	2					Aerial count	Kubik (1964)
		1965		28					Aerial count	Kubik (1966)
		1984	7/26	100					Aerial sur.,helo, Inc. ground observations	CIAA
	247-41-10200									
	-2053-3150									
	Kahiltna River	1958	7/23	0					Suspected aerial count	Kubik (1964)
	Tyonek D-3	1961	6/17	0					Aerial count	Kubik (1964)
	Talkeetna B-3	1962	7/05	0					Aerial count	Kubik (1964)
		1963	7/04	0					Aerial count	Kubik (1964)
	247-41-10200									
	-2053-3150-4060									
	Peters Creek	1962	8/14	3					Aerial count	Kubik (1964)
	Talkeetna A-2	1963	6/25	0					Aerial count	Kubik (1964)
	Talkeetna C-2	1965	7/27	101					Aerial count	Kubik (1966)
		1972		95					Aerial count	Kubik (1973)
		1973		59					Ground survey	Kubik & Trent (1974)
		1974		124					Aerial count	Kubik & Chlupach (1975)
		1975		8					Aerial count	Kubik & Riis (1976)
		1976		1,489					Aerial count	Kubik & Wadman (1977)
		1977		3,042					Aerial count	Kubik & Wadman (1978)
		1978		1,130					Aerial count	Kubik & Wadman (1979)
		1982		4,000		1,000		10,000		ADF&G (1982)
		1983	7/14	2,272					Aerial cnt.,helo, exc., Martin Crk. included	Barrett et al. (1984)
		1984		324					Aerial cnt.,helo, exc., Martin Crk. included	Hepler & Bentz (1985)
		1985		2,901						ADF&G, SF, Bartlett (1991)
		1986		1,915					Aerial count	King and Tarbox (1988)
		1987		1,302						ADF&G, SF, Bartlett (1991)
		1988		3,927						ADF&G, SF, Bartlett (1991)
		1989		959						ADF&G, SF, Bartlett (1991)
		1990		2,027						ADF&G, SF, Bartlett (1991)
		1991		2,458						ADF&G, SF, Bartlett (1991)
		1992		851						ADF&G, SF, Whitmore (1992)
		1993		1,668						ADF&G, SF, Sweet (1994)
		1994		573						ADF&G, SF, Palmer
		1995		1,041						ADF&G, SF, Palmer
		1996		794						ADF&G, SF, Palmer,96
	247-41-10200-2053									
	-3150-4060-5012									
	Talkeetna A-2									
	247-41-10200-2053									
	-3150-4060-5026									
	Kenny Creek									
	Talkeetna B-2									
	247-41-10200-2053									
	-3150-4060-5033									
	Martin Creek	Hist							Chinook present	
	Talkeetna B-2	1962	7/30	6					Aerial count, Peak	Kubik (1963)
		1963	7/09	5					Aerial count, Peak	Kubik (1964)
		1964	7/29	12					Aerial count, Peak	Kubik (1965)
		1974		23					Aerial count	Kubik & Chlupach (1975)
		1975		6					Aerial count	Kubik & Riis (1976)
		1976		791					Aerial count	Kubik & Wadman (1977)
		1977		1,061					Aerial count	Kubik & Wadman (1978)
		1978		205					Aerial count	Kubik & Wadman (1979)
		1979		108					Aerial count	Kubik & Delaney (1980)
		1983							Aerial cnt., Counts inc., in Peters Creek dat	Hepler & Bentz (1984)
		1984							Aerial cnt., Counts inc., in Peters Creek dat	Hepler & Bentz (1985)
	247-41-10200-2053									

Appendix A.1. Escapement surveys of adult salmon for systems with sockeye in the Northern District of Upper Cook Inlet.

#	Location Code/ Stream Name/ USGS Map No.	Year	Date	Chinook	Sockeye	Coho	Chum	Pink	Comments	Data Source
	-3150-4060-5033-6006									
	Talkeetna B-2									
	247-41-10200-2053									
	-3150-4060-5033-6009									
	Black Creek									
	Talkeetna B-2									
	247-41-10200-2053									
	-3150-4060-5033-6010									
	Talkeetna B-2									
	247-41-10200-2053									
	-3150-4060-5033-6015									
	Sand Creek									
	Talkeetna B-2									
	247-41-10200-2053									
	-3150-4060-5033-6019									
	South Fork									
	Martin Creek									
	Talkeetna B-2									
	247-41-10200-2053									
	-3150-4060-5033-6025									
	Talkeetna B-2									
	247-41-10200-2053									
	-3150-4060-5033-6033									
	String Creek									
	Talkeetna B-2									
	247-41-10200-2053									
	-3150-4060-5040									
	Deep Creek									
	Talkeetna B-2									
	247-41-10200-2053									
	-3150-4060-5050									
	Cottonwood Creek									
	Talkeetna C-2									
	247-41-10200-2053									
	-3150-4060-5050-6003									
	Willow Creek									
	247-41-10200-2053								Note - TALK C-2	
	-3150-4060-5067*									
	Bird Creek *	1964	7/03	4					Aerial count	Kubik (1965)
	Talkeetna C-2									
	247-41-10200-2053									
	-3150-4080									
	Bear Creek	1962	7/23	9					Aerial count, Peak	Kubik (1963)
	Talkeetna A-2	1963	7/09	13					Aerial count, Peak	Kubik (1964)
	Talkeetna B-2	1964	7/29	4					Aerial count, Peak	Kubik (1965)
		1972		12					Aerial count, Peak	Kubik (1973)
		1976		15					Aerial count	Kubik & Wadman (1977)
		1977		298					Aerial count	Kubik & Wadman (1978)
		1982		100				5,000	Max. abundance estimate from several years observations	ADF&G (1982)
	247-41-10200-2053									
	-3150-4090									
	Pickle Creek	1982		100				5,000		ADF&G (1982)
	Talkeetna B-2									
	247-41-10200-2053									
	-3150-4090-5008									
	Hungrymay Creek	1982		100	5,000					ADF&G (1982)
	Talkeetna B-2									
	247-41-10200-2053									
	-3150-4115									
	Treasure Creek									
	Talkeetna B-3									
	247-41-10200-2053									
	-3150-4120									
	Cache Creek	1958	7/23	0					Suspected aerial count	Kubik (1964)
	Talkeetna B-3	1962	7/23	4					Aerial count, Peak	Kubik (1963)
	Talkeetna C-2	1963	6/25	0					Aerial count, Peak	Kubik (1964)
		1976		61					Aerial count	Kubik & Wadman (1977)
		1977		100					Aerial count	Kubik & Wadman (1978)
		1982				2	68			ADF&G (1982)
		1983		497					Aerial count	Hepler & Bentz (1984)
		1984							no survey	ADF&G, SF, Palmer (Sweet)
		1985		206						ADF&G, SF, Palmer (Sweet)
		1986		424						ADF&G, SF, Palmer (Sweet)
		1987		556						ADF&G, SF, Palmer (Sweet)
		1988		818						ADF&G, SF, Palmer (Sweet)
		1989		362						ADF&G, SF, Palmer (Sweet)
		1990		484						ADF&G, SF, Palmer (Sweet)
		1991		499						ADF&G, SF, Palmer (Sweet)
		1992		487						ADF&G, SF, Palmer (Sweet)

Appendix A.1. Escapement surveys of adult salmon for systems with sockeye in the Northern District of Upper Cook Inlet.

#	Location Code/ Stream Name/ USGS Map No.	Year	Date	Chinook	Sockeye	Coho	Chum	Pink	Comments	Data Source
		1993		1,690						ADF&G, SF, Palmer (Sweet)
		1994		628						ADF&G, SF, Palmer
		1995		1,601						ADF&G, SF, Palmer
		1996		581						ADF&G, SF, Palmer, 96
	247-41-10200-2053 -3150-4120-5017 Dollar Creek Talkeetna B-3									
	247-41-10200-2053 -3150-4120-5021 Falls Creek Talkeetna B-3									
	247-41-10200-2053 -3150-4120-5023									
	247-41-10200-2053 -3150-4120-5027 Nugget Creek									
	247-41-10200-2053 -3150-4120-5032 Cache Creek									
	247-41-10200 -2053-3150-4144* Granite Creek * Talkeetna B-3	1973		4					Aerial count, fixed wing	Watsjold (1974)
	247-41-10200 -2053-3170 Lake Creek Tyonek D-3 Talkeetna B-3	Hist							Max. count 770 chinook (1969), 559 sockeye (1956)	
		1961	6/27	60					Aerial count	Kubik (1964)
		1962	7/12	10					Aerial count, Peak	Kubik (1963)
		1963	6/21	4					Aerial count	Kubik (1964)
		1964		45					Aerial count, Lake Creek mainstem count	Kubik (1965)
		1964		305					Aerial count, Lake Creek System (includes Camp, Sunflower, Yenlo, & Twin Cks.)	Kubik (1965)
		1965		172					Aerial count, Lake Creek mainstem count	Kubik (1967)
		1965		0					Aerial count, Lake Creel System	Kubik (1967)
		1966		30					Aerial count, Lake Creek mainstem count	Kubik (1967)
		1966		147					Aerial count, Lake Creel System	Kubik (1967)
		1966		300					Total escapement estimate	Kubik (1967)
		1967		343					Aerial count, Lake Creek mainstem count	Kubik (1968)
		1967		723					Aerial count, Lake Creel System	Kubik (1968)
		1967		1,000					Total escapement estimate	Kubik (1968)
		1968		362					Aerial count, Lake Creek mainstem count	Kubik (1969)
		1968		653					Aerial count, Lake Creel System	Kubik (1969)
		1968		1,300					Total escapement estimate	Kubik (1969)
		1969		304					Aerial count, Lake Creek mainstem count	Kubik (1970)
		1969		770					Aerial count, Lake Creel System	Kubik (1970)
		1969		1,540					Total escapement estimate	Kubik (1970)
		1969		350					Excellent observation - TRM 0.0-10.0	Stewart & Flagg (1969)
		1970		54					Aerial cnt., poor, Lake Creek mainstem .	Kubik (1971)
		1970	7/26	189				700	high water first 1/2 mile of stream	ADF&G (1982)
		1971		0					Aerial count, Lake Creek mainstem count	Kubik (1972)
		1971		119					Aerial count, Inc. Sunflower & Camp Ck	Kubik (1972)
		1972		442					Aerial count, Lake Creek mainstem count	Kubik (1973)
		1972		920					Aerial count, Lake Creel System	Kubik (1973)
		1972	8/30	114	112					ADF&G (1982)
		1973		761					Aerial count,Ground survey	Kubik & Trent (1974)
		1974		535					Aerial count	Kubik & Chlupach (75)
		1975		281					Aerial count	Kubik & Riis (1976)
		1976	7/26	3,735					Aerial count	Kubik & Wadman (1977)
		1977		7,391					Aerial count	Kubik & Wadman (1978)
		1978		8,931					Aerial count	Kubik & Wadman (1979)
		1979		4,196					Aerial count	Kubik & Delaney (1980)
		1980		6,000	5,000	2,500	15,000	500,000		ADF&G (1982)
		1981	7/30	169					Aerial cnt,helo,poor, Camp Crk. to Lake, pa	ADF&G (1981)
		1982		3,577					Aerial count	Delaney & Hepler (1983)
		1982	8/02	2,317					Aerial count, helicopter, good	ADF&G (1983a)
		1983	7/26	7,075					Aerial count, helicopter, exc.	Barrett et al. (1984)
		1985		5,803			52	21	Chinook count from ADF&G, SF Div.	
									Pink and chum: counts are for stream sections only and reflect only counts where both tagged and untagged fish were clearly visible	Thompson et al (1986) King and Tarbox (1986)
		1987		4,698						ADF&G, SF
		1987		4,398						ADF&G, SF, Bartlett (1991)
		1988		6,633						ADF&G, SF
		1990		2,075						ADF&G, SF
		1991		3,011						ADF&G, SF, Bartlett (1991)
		1992		2,322						ADF&G, SF, Whitmore (1992)
		1993		2,869						ADF&G, SF, Palmer (Sweet)
		1994		1,398						ADF&G, SF, Palmer
		1995		3,017						ADF&G, SF, Palmer
		1996		3,514						ADF&G, SF, Palmer, 96
	247-41-10200 -2053-3170-0010 Chelatna Lake	1972			57				Includes Coffee Ck. & Snowslide Ck.	Tarbox & Sanders (1980)

Appendix A.1. Escapement surveys of adult salmon for systems with sockeye in the Northern District of Upper Cook Inlet

#	Location Code/ Stream Name/ USGS Map No.	Year	Date	Chinook	Sockeye	Coho	Chum	Pink	Comments	Data Source
	Talkeetna B-3	1973			11				Includes Coffee Ck. & Snowslide Ck.	Tarbox & Sanders (1980)
		1974			0				Includes Coffee Ck. & Snowslide Ck.	Tarbox & Sanders (1980)
		1975			4				Includes Coffee Ck. & Snowslide Ck.	Tarbox & Sanders (1980)
		1975	8/29		50					ADF&G (1982)
		1977			171				Includes Coffee Ck. & Snowslide Ck.	Tarbox & Sanders (1980)
		1978			0				Includes Coffee Ck. & Snowslide Ck.	Tarbox & Sanders (1980)
		1979			0				Glacially occluded,Coffee & Snowslide	Tarbox & Sanders (1980)
		1980	8/29		4,120				Includes Coffee Ck. & Snowslide Ck.	Tarbox & Sanders (1980)
		1981	8/27		14,500				Includes Coffee Ck. & Snowslide Ck., includes 2,700 carcasses	Tarbox et al. (1983)
		1982	8/20		23,150				Includes 2,700 carcasses	ADF&G, CF
		1983	8/25		520					ADF&G, CF
		1984	8/08		575					ADF&G, CF
		1984	8/15		341					ADF&G, CF
		1984	8/26		41					ADF&G, CF
		1985			554				Peak Ct., inc. Coffee Cr. & Snowslide Crk	King and Tarbox (1986)
		1990	7/13-8/14	212	4,441	12	8	1,395	Sock. est. from mark/recap. Other spp. incindental catch.	CIAA
		1991	7/09-8/16		6,600				Mark/recap. est, inc. 1,284 fish for egg take	CIAA, Fandrei (1991)
		1992			35,300				Mark/recap. estimate	CIAA, Fandrei (1992)
		1993	7/09-8/14	126	20,235	11	0	8	Weir, few king salmon observed passing over the weir and were not counted.	CIAA, Fandrei, (1994)
		1994	7/12-8/25	254	28,303	133	54	9,647	Weir counts	CIAA, Fandrei
		1995	7/10-8/27	160	20,104	171	24	16	Weir counts	CIAA, Fandrei
		1996	7/08-8/09	99	28,684	45	22	324	Weir counts Partial	CIAA, Fandrei
		1996	7/08-8/09		35,000				Total estimate	CIAA, Fandrei
		1997	7/11-8/11	167	84,899	51	2	25	Weir counts	CIAA, Fandrei
	247-41-10200 -2053-3170-4027 Yenlo Creek (Alternate spelling- Yenlow Creek) Talkeetna A-2 Talkeetna A-3	1962	7/27	33					Aerial count	Kubik (1963)
		1963	6/25	0					Aerial count	Kubik (1964)
		1964	7/29	8					Aerial count	Kubik (1965)
		1965	7/29	3					Aerial count	Kubik (1966)
		1966		6					Aerial count	Kubik (1973)
		1969		28					Aerial count	Kubik (1973)
		1972		0					Aerial count	Kubik (1973)
	247-41-10200 -2053-3170-4039 Talkeetna A-3									
	247-41-10200-2053 -3170-4039-5017 Talkeetna A-3									
	247-41-10200 -2053-3170-4045 Home Creek Talkeetna B-3									
	247-41-10200-2053 -3170-4057 Camp Creek	Hist							Max. count 101 chinook (1965)	
	Talkeetna B-3	1961	7/26	86					Aerial count, fixed. Peak count	Stefanich (1962)
	Talkeetna B-4	1962	7/23	34					Aerial count, Peak	Kubik (1963)
		1963	7/09	10					Aerial count	Kubik (1964)
		1964	7/29	94					Aerial count	Kubik (1965)
		1965	7/30	101					Aerial count	Kubik (1966)
		1966		68					Aerial count	Kubik (1973)
		1967		225					Aerial count	Kubik (1973)
		1968		129					Aerial count	Kubik (1973)
		1969		86					Aerial count	Kubik (1973)
		1969		0					To early	Stewart & Flagg (1969)
		1970		47					Aerial count	Kubik (1973)
		1971		88					Aerial count	Kubik (1973)
		1972		126					Aerial count	Kubik (1973)
		1973		72					Aerial count	Kubik & Trent (1974)
		1981	7/24	436					Aerial count, helicopter, fair	ADF&G (1981)
		1982	8/02	517					Aerial count, helicopter, excellent	ADF&G (1983a)
		1983	7/29	1,050					Aerial count, helicopter, excellent	Barrett et al. (1984)
	247-41-10200-2053 -3170-4057-5011 Mills Creek Talkeetna B-3 Talkeetna B-4									
	247-41-10200-2053 -3170-4057-5011 -6017 Twin Creek	1963	7/09	20					Aerial count	Kubik (1964)
	Talkeetna B-3	1964	7/29	7					Aerial count	Kubik (1965)
	Talkeetna B-4	1965	7/30	19					Aerial count	Kubik (1966)
		1966		5					Aerial count	Kubik (1973)
		1969		56					Aerial count	Kubik (1973)
		1972		0					Aerial count	Kubik (1973)
	247-41-10200-2053 -3170-4067 Sunflower Creek (Lake Creek Drainage)	Hist							Max. count 151 chinook (1964), 1 pink (1953)	
	Talkeetna B-3	1961	7/26	16					Aerial count, fixed wing	Stefanich (1962)
	Talkeetna B-4	1962	7/23	19					Aerial count, Peak	Kubik (1963)
		1963	8/24	32					Aerial count	Kubik (1964)
		1964	7/29	151					Aerial count	Kubik (1965)

Appendix A.1. Escapement surveys of adult salmon for systems with sockeye in the Northern District of Upper Cook Inlet.

#	Location Code/ Stream Name/ USGS Map No.	Year	Date	Chinook	Sockeye	Coho	Chum	Pink	Comments	Data Source
		1965	7/30	49					Aerial count	Kubik (1966)
		1966		38					Aerial count	Kubik (1973)
		1967		155					Aerial count	Kubik (1973)
		1968		162					Aerial count	Kubik (1973)
		1969		296					Aerial count	Kubik (1973)
		1970		88					Aerial count	Kubik (1973)
		1971		31					Aerial count	Kubik (1973)
		1972		261					Aerial count	Kubik (1973)
		1973		154					Aerial count	Kubik & Trent (1974)
		1981	7/24	260					Aerial count, helicopter, fair	ADF&G (1981)
		1982	8/02	743					Aerial count, helicopter, excellent	ADF&G (1983a)
		1983	7/29	2,250					Aerial count, helicopter, excellent	Barrett et al. (1984)
	247-41-10200 -2053-3170-4080*								Note - TALK C-3	
	Eagle Creek *	1985								ADF&G, CF
	Talkeetna C-3									Comm. Fish
	247-41-10200 -2053-3170-4088									Soldotna
	Coffee Creek	Hist							Sockeye present	
	Talkeetna C-3	1963	8/19	0					Aerial count	Kubik (1964)
		1972	8/29		254				Ground survey	Barrett (1973a)
		1972	8/30		24				Ground survey	Barrett (1973a)
		1973	9/06	0	0	0	0	0	Ground survey	Barrett (1973a)
		1974	9/06	0	0	0	0	0	Ground survey	Barrett (1975a)
		1975	8/30		70					ADF&G (1982)
		1975	9/01		7					ADF&G (1982)
		1975			0				Ground survey	Friese (1976a)
		1976							Ground survey. Glacially occluded	Friese (1976b)
		1977	8/27		231					ADF&G (1982)
		1977							Glacially occluded	Namtvedt et al. (1979)
		1978			0					Waltemyer et al. (1980)
		1978	8/27		18				Coffee Creek and Snowslide Creek	ADF&G (1982)
	247-41-10200 -2053-3170-4093								Note - TALK C-4	
	Spring Creek *	Hist							Max. count 142 sockeye (1954)	
	Talkeetna C-4	1972	8/29		33				Foot survey. Includes Snowslide Creek	Barrett (1973a)
		1972			57				Includes Snowslide Creek	ADF&G, CF
		1973	9/06		11				Foot survey. Includes Snowslide Creek	Barrett (1973a)
		1974	9/06	0	0	0	0	0	Foot survey. Includes Snowslide Creek	Barrett (1975a)
		1975	9/01		4				Includes Snowslide Creek	Friese (1976a)
		1976			0				Ground survey. Glacially occluded	Friese (1976b)
		1991				20			Foot survey. Note - See Snowslide Creek for more recent survey data.	Roth - SF
	247-41-10200 -2053-3170-4095*								Note - Trib. of Cripple Creek, TALK C-4	
	Snowslide Creek *									
	Talkeetna C-4	1977			171				Referred to in previous reports as Spring Creek	Namtvedt et al. (1979)
		1978			0				Referred to in previous reports as Spring Creek	Waltemyer et al. (1980)
	247-41-10200-2053 -3170-4095-5019									
	Cripple Creek	1975	8/23		427					ADF&G (1982)
	Talkeetna C-4	1975	8/30		48					ADF&G (1982)
		1976	8/23		433					ADF&G (1982)
		1976	9/02	24	428					ADF&G (1982)
		1977	9/12	0	0	0	0	0		ADF&G (1982)
		1979	8/26	0	0	0	0	0		ADF&G (1982)
									Note - Also known as Quick Creek	
	247-41-10200 -2053-3180 Fish Lake Creek /Quig Creek								(Barrett 1975, weir counts) and Quig Creek (ADF&G, Soldotna)	
	Tyonek D-3	1965	7/30	53					Aerial count	Kubik (1966)
	Talkeetna A-3	1974	7/30-8/14		1,048	6		7	Weir count, Quick Crk. partial estimate for sockeye & coho due to sampling dates	Barrett (1975b)
		1977		131					Aerial count	Kubik & Wadman (1978)
		1978		66					Aerial count	Kubik & Wadman (1979)
		1983	7/22	250	17,500				Aerial count, Reds reported (15000-20000)	CIAA
		1984	8/15		1,500				Aerial count, helo, poor vis., high water	CIAA
									Note - All Fish Lake data combined	
	247-41-10200 -2053-3180-0010								(Fish Lake 0010 - 0050)	
	Fish Lakes	Hist							Sockeye escapements exceeding	
	(Fish Lake Creek)	1974			1,048				1,000 Escapement count (weir)	Barrett (1975b)
	Tyonek D-3	1981		200		500				ADF&G (1982)
	247-41-10200 -2053-3180-0020 Fish Lakes (Fish Lake Creek) Tyonek D-3								Note - See Fish Lakes (0010)	
	247-41-10200 -2053-3180-0030 Fish Lakes (Fish Lake Creek)								Note - See Fish Lakes (0010)	

Appendix A.1. Escapement surveys of adult salmon for systems with sockeye in the Northern District of Upper Cook Inlet

#	Location Code/ Stream Name/ USGS Map No.	Year	Date	Chinook	Sockeye	Coho	Chum	Pink	Comments	Data Source
	Tyonek D-3									
	247-41-10200 -2053-3180-0040 Fish Lakes (Fish Lake Creek) Tyonek D-3								Note - See Fish Lakes (0010)	
	247-41-10200 -2053-3180-0050 Fish Lakes (Fish Lake Creek) Tyonek D-3								Note - See Fish Lakes (0010)	
	247-41-10200 -2053-3205 Skwentna River	Hist							Max. count 75 sockeye (1953)	
	Tyonek D-4	1958	6/12	0					Suspected aerial count	Kubik (1964)
	Tyonek D-7	1976	8/26		150	20	1	140		ADF&G (1982)
		1977	9/01		450					ADF&G (1982)
		1978	8/29		308					ADF&G (1982)
	247-41-10200 -2053-3205-4027* Eight Mile Creek *								Note - TYONEK D-4	
	Tyonek D-4	1961	6/17	0					Peak, suspected ground survey	Kubik (1964)
		1962	7/04	2					Ground survey. Peak	Kubik (1963)
		1983	7/21		15,900				Aerial survey,helicop.	Marcuson et al
		1984	7/18	Present	3,500				Aerial survey,helicop., lower 3 mi.	Marcuson et al
		1985	8/15		1,800				Aerial survey,helicop., poor cond.	Mears et al
		1987	8/09	12	1,200				Aerial count, helicopter	CIAA
	247-41-10200 -2053-3205-4050 Shell Creek	Hist							Significant numbers of sockeye	
	Tyonek D-4	1961	6/17	0					Aerial count	Kubik (1964)
	Tyonek D-5	1962	8/03	0					Aerial count	Kubik (1964)
		1963	6/19	0					Aerial count	Kubik (1964)
		1972	7/28		5,000			5	Ground survey	Barrett (1973a)
		1972	8/10		0	0	0	0	Ground survey	Barrett (1973a)
		1972	8/18		0	0	0	0	Ground survey	Barrett (1973a)
		1972	8/29		50				Aerial count, Super Cub	Barrett (1973a)
		1973	7/15-8/14	0	26	0	0	26	Weir estimate #1, estimates believed low due to low discharge and timing	Barrett (1973a)
		1973	9/14		200				Aerial count, Super Cub	Barrett (1973a)
		1973			295				Aerial count, sup. cub. Peak survey count	Barrett (1973a)
		1974	8/26		35	15			Aerial count, Super Cub	Barrett (1975a)
		1974	9/09		64	20			Aerial count, Super Cub	Barrett (1975a)
		1974	10/03		0	0	0	0	Aerial count, Super Cub	Barrett (1975a)
		1974	7/18-8/17		956	1		3	Escapement count (Weir Sites #1 & #2)	Barrett (1975a)
		1975	8/29		0	0	0	0	Aerial count, Super Cub	Friese (1976a)
		1975	7/26-8/15		2,027		2	76	Escapement count (weir)	Friese (1976a)
		1976	8/17		900			20		ADF&G (1982)
		1976	8/26		170	55				ADF&G (1982)
		1976	9/14		120					ADF&G (1982)
		1976			344				Peak survey count	ADF&G (1982)
		1977	8/24		127					ADF&G (1982)
		1979	9/07		1,000	200				ADF&G (1982)
		1980	9/11		5,800				Aerial count. Includes 300 carcassas	ADF&G, CF
		1981	9/04		5,100				Aerial count. Includes Shell Lake	ADF&G (1982)
		1983	9/06		12,000			8	12,000+ chinook	CIAA
		1984	8/28		1,500					ADF&G, CF
		1984	9/04		6,100					ADF&G, CF
		1985	8/03		45,000				Aerial survey, helicop.	CIAA, Marcuson et al
		1987	8/09		1,515			17	Aerial survey, helicopter	CIAA
		1991	8/26		1,750				Aerial survey, helicopter	CIAA, Fandrei (1991)
		1992	9/2		4,500					CIAA
		1993	8/24		856				Aerial survey, helo, additional 150-200 in lake near outlet	CIAA, Fandrei (1993)
		1994	8/3		1,300					CIAA
		1994	9/2		5,000					CIAA
		1995	8/23		20,000					CIAA
		1995	8/31		25,000					CIAA
		1996	8/09		5,000				estimate, aerial, 4 beaver dams opened	CIAA, Fandrei (1996)
		1996	8/15		12,000					CIAA, Fandrei (1996)
		1997	8/28		4,000				Aerial survey, helicopter	CIAA, Thomas
	247-41-10200-2053 -3205-4050-0010 Shell Lake	Hist							Significant number of sockeye	
	Tyonek D-5	1972	7/28		0	0	0	0	Ground survey	Barrett (1973a)
		1972	8/29		640				Aerial count, Super Cub	Barrett (1973a)
		1973	9/04		115				Aerial count, Super Cub	Barrett (1973a)
		1973			295				Aerial count, Super Cub	Barrett (1973a)
		1973	9/14		95				Aerial count, Super Cub	Barrett (1973a)
		1974	8/26		0	0	0	0	Aerial count, Super Cub	Barrett (1975a)
		1974	9/09		20				Aerial count, Super Cub	Barrett (1975a)
		1974	10/03		5				Aerial count, Super Cub	Barrett (1975a)
		1975	8/29		251				Aerial count, Super Cub	Friese (1976a)
		1976			344				Aerial count, Peak count	Friese (1976b)
		1976	8/26		194	55				ADF&G (1982)
		1976	9/14		309					ADF&G (1982)
		1977	8/24		172					ADF&G (1982)
		1977	8/26		194					ADF&G (1982)
		1977	9/01		247				Aerial count	Namtvedt et al. (1979)
		1978	8/24		127					Tarbox & Sanders (1980)
		1979	9/07		1,430				Aerial count. Includes Shell Creek	Tarbox & Sanders (1980)

Appendix A.1. Escapement surveys of adult salmon for systems with sockeye in the Northern District of Upper Cook Inlet

#	Location Code/ Stream Name/ USGS Map No.	Year	Date	Chinook	Sockeye	Coho	Chum	Pink	Comments	Data Source
		1979	9/07		480				Aerial count	ADF&G (1982)
		1980	9/11		5,800				Aerial count. Inc. 300 carcasses. 3500 live in lake, 2000 at and below outlet	Tarbox & Sanders (1980)
		1980	8/22		4,800				Aerial count. Includes outlet	ADF&G (1982)
		1980	9/11		5,500				Includes outlet	ADF&G (1982)
		1981							Data combined into Lakes category	Mills (1982)
		1981	9/04		2,500				Shell Creek	ADF&G, CF
		1981	9/04		2,600				Includes 100 carcasses	ADF&G, CF
		1981	9/08		6,050					Tarbox et al. (1983)
		1981	9/08		3,500				Shell Creek	ADF&G, CF
		1981	9/08		2,550				Includes 50 carcasses	ADF&G, CF
		1981	10/02		3,500					ADF&G (1982)
		1982	8/23		51				Poor cond.	ADF&G, CF
		1982	8/26		2,725				Creek count, includes 1,400 carcasses	ADF&G, CF
		1982	8/27		3,150					ADF&G, CF
		1983	7/21		2,810				1,000 fish at outlet of Shell Creek	ADF&G, CF
		1984	8/28		4,920					ADF&G, CF
		1984	9/04		2,500					ADF&G, CF
		1985			1,102					King and Tarbox (1986)
		1986			4,237	87		172	Weir count, CIAA	King and Tarbox (1988)
		1987	8/09	0	0	0	0	0	Aerial count, helicopter	CIAA
		1989	8/22		900				Aerial count, fixed wing	ADF&G,CF
		1993	8/24		200				Aerial survey, helicopter	CIAA, Fandrei (1993)
		1997	8/28		150				Aerial survey, helicopter	CIAA, Thomas
	247-41-10200 -2053-3205-4053 Talachulitna River Tyonek D-4 Tyonek C-4	Hist							Max. count 52,900 sockeye (1962); 30,000 coho (1952); 1,522 chums (1956); 1,000,000 pinks (1960)	
		1958	6/25	0					Suspected aerial count	Kubik (1964)
		1961	6/29	32					Aerial count, fixed. Peak count	Stefanich (1962)
		1962	7/27	78					Aerial count	Kubik (1963)
		1963	7/29	56					Aerial count	Kubik (1964)
		1964	7/28	95					Aerial count	Kubik (1965)
		1965	8/07	69					Aerial count	Kubik (1966)
		1966		15					Aerial count	Kubik (1967)
		1972		405					Aerial count	Kubik (1973)
		1972			6,501				Aerial ct., Total count - entire drainage	Friese (1976a)
		1972	7/10-8/14	405	15,730	451	12,783	202,915	Obs. towers, Tower 1 only. (7/10-7/17) Tower 1 & 2, (7/18-8/14)	Barrett (1973a)
		1972	7/10-8/14							
		1972	7/10-8/14						Barrett (1973a) doubted the accuracy of the 1972 sockeye & chum estimates due to possible species I.D. problems	
		1972	7/10-8/14							
		1972	7/10-8/14							
		1972	9/16		30				Aerial survey, helo. Upper river	Barrett (1973a)
		1972		405					Observation tower	Kubik & Trent (1974)
		1973		333	12,362				Aerial ct., Total count - entire drainage	Friese (1976a)
		1973	7/05		78				Upper river	ADF&G (1982)
		1973	7/5-8/14	291	19,727	8	707	92,496	Observation tower, Tower 2 only. Partial estimates for chinook & coho due to timing of sampling	Barrett (1973a)
		1973	7/5-8/14							
		1973	7/5-8/14							
		1973				50		6,200	Spawners observed below Tower 2	Barrett (1973a)
		1973	8/17		26				Aerial count, helo. Talachulitna Lake	Barrett (1973a)
		1973	8/17		510				Aerial ct., S crib. Upper river	Barrett (1973a)
		1973	9/05		231				Aerial count, helo. Talachulitna Lake	Barrett (1973a)
		1973	9/05		78				Aerial count, helo. Upper river	Barrett (1973a)
		1973	9/28		61				Aerial count, helo. Talachulitna Lake	Barrett (1973a)
		1973	9/28		65	6	10		Aerial count, helo. Upper river	Barrett (1973a)
		1973		333					Observation tower	Kubik & Trent (1974)
		1974		303	6,816				Aerial ct., Total count - entire drainage	Friese (1976a)
		1974	7/6-8/14		15,976	193	415	50,196	Obs. tower, Tower 3, part. est. for coho due to timing of sampling	Barrett (1975a)
		1974	7/6-8/14							
		1974	8/28		55				Aerial count, helicopter	Barrett (1975a)
		1974	9/10		102				Aerial count, helicopter	Barrett (1975a)
		1974		303					Aerial count	Kubik & Chlupach (75)
		1975		120	5,105				Aerial ct., Total count - entire drainage	Friese (1976a)
		1975	8/06		86					ADF&G (1982)
		1975	8/29		95					ADF&G (1982)
		1975	8/29		150				Upper river	ADF&G (1982)
		1975		120					Aerial count	Kubik & Riis (1976)
		1976			13,210				Aerial ct., Total count - entire drainage	Namtvedt et al. (1979)
		1976	8/17		10,249			30,000		ADF&G (1982)
		1976	8/25		20,550				Includes Talachulitna Lake and Judd Spring #2	ADF&G (1982)
		1976	8/25							
		1976	8/26		10,553				Included Judd Lake	ADF&G (1982)
		1976		1,319					Aerial count	Kubik & Wadman (1977)
		1977			25,935				Aerial ct., Total count - entire drainage	Namtvedt et al. (1979)
		1977		1,856					Aerial count	Kubik & Wadman (1978)
		1978	8/24		12,570			500,000		
		1978	9/06-9/07		14,368			6,783	Aerial ct., Total count - entire drainage	Waltemyer et al. (1980)
		1978		1,375					Aerial count	Kubik & Wadman (1979)
		1979	8/22		9,295				Aerial ct., Total count - entire drainage	ADF&G, CF
		1979	8/30		11,696				Aerial ct Judd L., Total ct - entire drainage	Tarbox et al. (1983)
		1979	8/30						Ground Survey on streams	ADF&G, SF, Bartlett (1991)
		1979		1,648					Aerial count	Kubik & Delaney (1980)
		1979		1,618						ADF&G (1982)
		1979	8/31		2,699					ADF&G,CF
		1980	8/22		15,000			130,000	Aerial, Pink count inc. 25000 carcasses	Tarbox et al. (1983)
		1980	9/11		21,125				Aerial count, Total count - entire drainage	
		1980	10/02		17,150	25		5,800	Aerial count, Total count - entire drainage	
		1980	10/02						Pink count all carcasses	
		1981	9/08		9,826			100	Aerial count, Total count - entire drainage	Tarbox et al. (1983)
		1981	10/02		5,435	125			Aerial count, Total count - entire drainage	ADF&G, CF
		1981		2,025						ADF&G, SF, Bartlett (1991)
		1981	7/29-7/30	2,129					Aerial count, helicopter	ADF&G (1981)

Appendix A.1. Escapement surveys of adult salmon for systems with sockeye in the Northern District of Upper Cook Inlet.

#	Location Code/ Stream Name/ USGS Map No.	Year	Date	Chinook	Sockeye	Coho	Chum	Pink	Comments	Data Source
		1981	9/08		200				Upper river count	ADF&G, CF
		1981	10/02		35				Upper river count, inc. 25 carcasses	ADF&G, CF
		1981		2,025					Aerial count	Hepler & Kubik (1982)
		1982				2,000	10,000	500,000	Personal comm., Est. from several yrs. obs.	ADF&G, SF
		1982		3,101	14,550				Peak counts	King and Tarbox (1983)
		1982	8/01	3,101					Aerial count, helicopter, excellent.	ADF&G (1983a)
		1982	8/23		1,000			104,000	Upper river sur.,inc. 4000 pink carcasses	ADF&G, CF
		1983			9,590				Aerial count	King and Tarbox (1986)
		1983		10,014						ADF&G, SF, Bartlett (1991)
		1983	8/25		18,450			6,000	Aerial count, Total count - entire drainage	
		1983	8/25						Includes 2000 pink carcasses	
		1983	7/29	10,014					Aerial count, helicopter, excellent.	Barrett et al. (1984)
		1983	8/27		1,650					ADF&G, CF
		1984	9/04		27,736				Aerial count, Includes 636 carcasses	ADF&G, CF
		1984		6,138						ADF&G, SF, Bartlett (1991)
		1984	8/28		250			6,000		ADF&G, CF
		1984	9/04					600		ADF&G, CF
		1984	7/31	6,138					Aerial count, helicopter, poor	Barrett et al. (1985)
		1985	8/03	63	15,000				Aerial sur., helo. Judd Lk. toTrinity Cr.	CIAA
		1985	8/03	50	20,000				Aerial sur., helo. Mouth of Trinity Cr.	CIAA
		1985	8/03		15,000				Aerial sur., helo. Con. of Tal. R. and Skwentna R.	
		1985			22,350				Aerial count	King and Tarbox (1986)
		1985		5,145						ADF&G, SF, Bartlett (1991)
		1985		5,145	22,350				Aerial ct., Inc. Talachulitna Crk., Lake Crk.,	King and Tarbox (1986)
		1985							Talachulitna Lake, N&S Judd Springs.	
		1985							Judd Sp. no. 2, Judd Lk. & Upper Tal.	
		1985								ADF&G TFR 88-04
		1986		3,636						ADF&G, SF, Bartlett (1991)
		1986		3,636					Aerial	
		1987							No survey	
		1987	8/02	850	3,500				Aerial, from Judd Lk. to Trinity Cr.	CIAA
		1987	8/20					50	Aerial ct., fixed, Upper 2 mi. of Tal. River	ADF&G, CF
		1988		4,112						ADF&G, SF, Bartlett (1991)
		1989							No survey	
		1990		2,694						ADF&G, SF, Bartlett (1991)
		1991		2,457						ADF&G, SF, Bartlett (1991)
		1992		3,468						ADF&G, SF, Palmer (Sweet)
		1993		3,269						ADF&G, SF, Palmer (Sweet)
		1989	8/22		200				Aerial ct., fixed, Upper 2 mi. of Tal. River	
		1990		2,694						
		1991		2,457						ADF&G, SF
		1994		1,575						ADF&G, SF, Palmer
		1995		2,521						ADF&G, SF, Palmer
		1996		2,748						ADF&G, SF, Palmer, 96
		1996	8/9		10,000					CIAA
		1996	8/15		2,500					CIAA
	247-41-10200 -2053-3205-4053 -5009 Tyonek D-4									
	247-41-10200 -2053-3205-4053 -5028 Thursday Creek	1961	6/17	0					Aerial count	Kubik (1964)
	Tyonek D-4	1962	8/02	0					Aerial count	Kubik (1964)
	Tyonek D-5	1963	8/14	0					Aerial count	Kubik (1964)
	247-41-10200 -2053-3205-4053 -5038 Deep Creek Tyonek C-4 Tyonek C-5									
	247-41-10200 -2053-3205-4053 -5046 Friday Creek	1961	7/06	0					Aerial count	Kubik (1964)
	Tyonek C-4	1962	8/02	0					Aerial count	Kubik (1964)
	Tyonek C-5	1963	8/14	0					Aerial count	Kubik (1964)
		1980	7/26	82						ADF&G (1982)
	247-41-10200 -2053-3205-4053 -5046-6011 Saturday Creek Tyonek C-4 Tyonek C-5									
	247-41-10200 -2053-3205-4053 -5046-6020 Tyonek C-5									
	247-41-10200 -2053-3205-4053 -5053 Tyonek C-4									
	247-41-10200 -2053-3205-4053 -5066 Talachulitna Creek	Hist							Max. count 1,199 sockeye (1956)	
	Tyonek C-4	1958	8/29	0					Suspected aerial count	Kubik (1964)

Appendix A.1. Escapement surveys of adult salmon for systems with sockeye in the Northern District of Upper Cook Inlet.

#	Location Code/ Stream Name/ USGS Map No.	Year	Date	Chinook	Sockeye	Coho	Chum	Pink	Comments	Data Source
	Tyonek C-5	1962	6/27	12					Aerial count. Peak	Kubik (1963)
		1972	9/16		390				Aerial count, helicopter	Barrett (1973a)
		1973	8/17		270				Aerial count, Super Cub	Barrett (1973a)
		1973	9/05		960				Aerial count, helicopter	Barrett (1973a)
		1973	9/28		1,350				Aerial count, helicopter	Barrett (1973a)
		1974	8/28		74				Aerial count, helicopter	Barrett (1975a)
		1974	9/10		205				Aerial count, helicopter	Barrett (1975a)
		1975	8/29		86					ADF&G (1982)
		1981	9/08		5,025				Includes 4,000 carcasses	ADF&G, CF
		1981	10/02		100					ADF&G, CF
		1982	8/23		6,045			50	Includes 1,395 carcasses	ADF&G, CF
		1983	7/21		no counts				Significant nos.of chinook & sockeye.	CIAA
		1983	8/27		2,200					ADF&G, CF
		1984	8/28		6,000					ADF&G, CF
		1984	9/04		4,430					ADF&G, CF
		1987	8/02	0	0	0	0	0	Aerial survey, helicopter	CIAA
		1987	8/20		450				Aerial survey, fixed wing	ADF&G, CF
		1989	8/21		1,000				Aerial survey, fixed wing	ADF&G,CF
		1997	7/24	50	55				Aerial sur., C-207. Outlet of lake downstream two miles.	
	247-41-10200 -2053-3205-4053 -5066-0010 Judd Lake Tyonek C-5	Hist							Max. counts 100,000 sockeye (1966), 10,062 pinks (1952), 56 chinook (1963) and 370 chum (1952)	
		1970	9/01		600					
		1972	9/16		4,900				Aerial count, helicopter	Barrett (1973a)
		1973	8/17		5,350				Aerial count, Super Cub	Barrett (1973a)
		1973	9/05		10,364				Aerial count, helicopter	Barrett (1973a)
		1973	9/28		4,225				Aerial count, helicopter	Barrett (1973a)
		1974	8/28		4,050				Aerial count, helicopter	Barrett (1975a)
		1974	9/10		5,675				Aerial count, helicopter	Barrett (1975a)
		1975	8/29		4,720					ADF&G (1982)
		1981	9/08		625				Includes 200 carcasses	ADF&G, CF
		1981	10/02		1,900				Most at Talachulitna Creek mouth	ADF&G, CF
		1983	8/27		440					ADF&G, CF
		1984	8/28		12,500					ADF&G, CF
		1984	9/04		18,104					ADF&G, CF
		1985	8/03		3,000				Aerial survey, helicop.	CIAA
		1987	8/02		250				Aerial ct., helo. Fish congregated at "inlet stream." Probably Judd Sp. #2	CIAA
		1987	8/20		3,851				Aerial ct.,fixed. 850 in shallows of lake 3000 congregated at outlets of Judd Sps. # 1 and 2, count includes 1 carcass	ADF&G, CF
		1989	7/25-8/27		12,792				Weir count	CIAA
		1996	8/15		2,000					CIAA
		1997	7/24		30				Aerial survey, C-207	ADF&G, Davis
		1997	8/23		5,400				Aerial Survey fixed wng	ADF&G, CF
	(No location code assigned) Judd Springs Tyonek C-5								Note - TYONEK C-5, located in the marshy area on the western shore of Judd Lake, no map of its location found. Includes 500 carcasses	ADF&G, CF
		1981	10/02		3,000					ADF&G, CF
	247-41-10200 -2053-3205-4053 -5066-6034	1982	8/23		200					ADF&G, CF
	Judd Spring #2 * Tyonek C-5	Hist							Max. count 2353 sockeye (1956)	ADF&G, CF
		1972	9/16		191				Aerial count, helicopter	Barrett (1973a)
		1973	8/17		0				Aerial count, Super Cub	Barrett (1973a)
		1973	9/05		335				Aerial count, helicopter	Barrett (1973a)
		1973	9/28		75				Aerial count, helicopter	Barrett (1973a)
		1974	8/29		0				Aerial count, helicopter	Barrett (1975a)
		1974	9/10		82				Aerial count, helicopter	Barrett (1975a)
		1975	8/29		0					ADF&G (1982)
		1983	8/27		3,900					ADF&G, CF
		1989	8/21		1,500				Aerial count, fixed wng	ADF&G,CF
	(No location code assigned) North Judd Springs Tyonek C-5								Note - TYONEK C-5, located in the marshy area on the western shore of Judd Lake, no map of its location found Carcass count	ADF&G, CF
		1981	9/08		1,000					ADF&G, CF
		1981	10/02		200					ADF&G, CF
		1982	8/23		400					ADF&G, CF
		1989	8/21		1,000				Aerial count	ADF&G,CF
	(No location code assigned) South Judd Springs Tyonek C-5								Note - TYONEK C-5, located in the marshy area on the western shore of Judd Lake, no map of its location found	ADF&G, CF
		1981	9/08		1,000				Carcass count	ADF&G, CF
		1981	10/02		200				Carcass count	ADF&G, CF
		1982	8/23		800					ADF&G, CF
		1989	8/21		500				Aerial count	ADF&G,CF
	247-41-10200-2053 -3205-4053-5066-6026 Grayling Creek Tyonek C-4 Tyonek C-5	Hist							Chinook, coho present in 1953. 5313 pinks (1954), 322 chum (1952)	
		1975	8/29				2			
		1983	8/27			15	2			ADF&G, CF

Appendix A.1. Escapement surveys of adult salmon for systems with sockeye in the Northern District of Upper Cook Inlet

#	Location Code/ Stream Name/ USGS Map No.	Year	Date	Chinook	Sockeye	Coho	Chum	Pink	Comments	Data Source
	247-41-10200 -2053-3205-4053 -5066-0020									
	Talachulitna Lake	1973	8/17		26				Aerial count, Super Cub	Barrett (1973a)
	Tyonek C-5	1973	9/05		231				Aerial count, helicopter	Barrett (1973a)
		1973	9/28		61				Aerial count, helicopter	Barrett (1973a)
		1981	10/02		75	25			Includes 25 sockeye carcasses	ADF&G, CF
		1981	9/08		101				Includes 1 carcass	ADF&G, CF
		1982	8/23		125					ADF&G, CF
		1983	8/27		550					ADF&G, CF
		1984	8/28		600					ADF&G, CF
		1984	9/04		700					ADF&G, CF
		1987	8/02	0	0	0	0	0	Aerial survey, helicopter	CIAA
		1987	8/20		250				Aerial count, fixed wing	ADF&G, CF
	247-41-10200 -2053-3205-4053 -5066-6045									
	Upper Talachulitna Creek*	1981	9/08		175					ADF&G, CF
		1981	10/02		25	100				ADF&G, CF
	Tyonek C-5	1982	8/23		990				Includes 90 carcasses	ADF&G, CF
		1983	8/27		850					ADF&G, CF
		1984	8/28		4,500					ADF&G, CF
		1984	9/04		3,902					ADF&G, CF
		1987	8/02	0	0	0	0	0	Aerial survey, helicopter	CIAA
		1987	8/20		350				Aerial count, fixed wing	ADF&G, CF
		1997	7/24	65						
	247-41-10200 -2053-3205-4053 -5066-6012									
	Trinity Creek *	1961	7/10	0					Aerial count	Kubik (1964)
	Tyonek C-4	1962	8/02	0					Aerial count	Kubik (1964)
		1984	8/01		10,000				Aerial ct., helo. Sock. moved through breac Beaver dam Pink & chum present.	CIAA
		1985	7/31	10	15,000				Aerial ct., helo. *confluence with* Tal. R.	CIAA
		1985	8/11		16,050				Aerial ct., helo. Inc. ground observations	CIAA
		1987	8/02		12				Aerial count	CIAA
		1987	8/09	7	69				Aerial ct., helo, King count inc. 4 carcassas confluence of crk. and Talachulitna R.	
		1991	8/26		290				Aerial count, helicopter	CIAA, Fandrei (1991)
		1993	8/24						No ct. conducted, Fandrei says "lg. number fish throughout the Creek and Trinity Lake..."	CIAA, Fandrei (1993)
		1996			8-10,000				Aerial, fish staged in Talachulitna R.	CIAA, Fandrei (1996)
		1997	8/23		0				Aerial count, fixed wing, Poor conditions	ADF&G, CF
	247-41-10200 -2053-3205-4053 -5066-6012-0010									
	Trinity Lake	Hist							Max. counts 417 sockeye (1957), 6,000 pinks (1962)	
	Tyonek C-4	1972	8/18		350				ground survey, Trinity Creek	Barrett (1973a)
		1973	9/14		75				Includes Movie Lake count	Tarbox & Sanders (1980)
		1974	8/26		0				Aerial count, Super Cub	Barrett (1975a)
		1974	9/09		0				Aerial count, Super Cub	Barrett (1975a)
		1974	10/03		0				Aerial count, Super Cub	Barrett (1975a)
		1975			0				Aerial count, Super Cub	Friese (1976a)
		1976	9/14		42				Aerial count, Super Cub	Friese (1976b)
		1977	8/25		148					ADF&G (1982)
		1977	9/01		186				Aerial ct., Includes Movie Lake count	Tarbox & Sanders (1980)
		1978	8/26		140	20				ADF&G (1982)
		1978			150				Aerial ct., Includes Movie Lake count	Tarbox & Sanders (1980)
		1979	9/07		195				Includes Movie Lake count	Tarbox & Sanders (1980)
		1980	8/22		50					ADF&G (1982)
		1980	9/11		200				Includes Movie Lake count	Tarbox & Sanders (1980)
		1981	9/04		500					Tarbox et al. (1983)
		1982			138					ADF&G,CF
		1983	8/27		230					ADF&G,CF
		1984	8/28		280					ADF&G,CF
		1985			286				Aerial ct., Includes Movie Lake count	King and Tarbox (1986)
		1989			500				Aerial count	ADF&G
		1993	8/24						See commment for Trinity Creek	
		1994	8/18		5,000					CIAA
		1994	8/19		5,000					CIAA
		1994	8/26		350					CIAA
		1994	8/28		1,500					CIAA
		1994	9/14		3,000					CIAA
		1995	8/24		7,000					CIAA
		1995	8/31		5,000					CIAA
		1996	8/15		1,000					CIAA
		1996	8/20		400					CIAA
		1997	7/24	0	0	0	0	0	Davis and Carlson.	ADF&G, C-206
		1997	8/23	0	0	0	0	0	Aerial count, fixed wing, Poor conditions	ADF&G, CF
	247-41-10200 -2053-3205-4053 -5066-6012-0020									
	Movie Lake	1983	8/27		30					ADF&G, CF
	Tyonek C-4	1984	8/28		640				Includes 200 fish at stream mouth	ADF&G, CF
		1989	8/21		250				Aerial count, water high, turbid	ADF&G
		1994	9/14		50					CIAA
		1995	8/23		1,000					CIAA
		1997	7/24	0	0	0	0	0	Davis and Carlson.	
		1997	8/23	0	50	0	0	0	Aerial count, fixed wing,Poor conditions	ADF&G, CF

Appendix A.1. Escapement surveys of adult salmon for systems with sockeye in the Northern District of Upper Cook Inlet.

#	Location Code/ Stream Name/ USGS Map No.	Year	Date	Chinook	Sockeye	Coho	Chum	Pink	Comments	Data Source
	247-41-10200 -2053-3205-4053 -5072 Tyonek C-4									
	247-41-10200 -2053-3205-4057									
	Quartz Creek	1973	9/14		250					ADF&G (1982)
	Tyonek D-4	1976	8/17		60			35		ADF&G (1982)
	Tyonek D-5	1976			150				Peak survey count	ADF&G (1982)
		1977			450				Peak survey count	Namtvedt et al. (1979)
		1977		8					Aerial count	Kubik & Wadman (1978)
		1978			125				Glacially occluded	Waltemyer et al. (1980)
		1979	8/26	5	450					ADF&G (1982)
		1981	9/04		1,210	50				ADF&G (1982)
		1981	7/29	8					Aerial count, helicopter, good	ADF&G (1981)
		1982							Pinks present	ADF&G (1982)
	247-41-10200 -2053-3205-4064 Tyonek D-5									
	247-41-10200 -2053-3205-4067 -5020									
	Canyon Creek *	1962	7/27	23					Aerial count, Peak	Kubik (1963)
	(Skwentna River)	1963	7/13	0					Aerial count	Kubik (1964)
	Tyonek D-5	1972		8					Aerial count	Kubik (1973)
		1973		29					Aerial count	Kubik & Trent (1974)
		1974		10					Aerial count	Kubik & Chlupach (1975)
		1975		2					Aerial count	Kubik & Riis (1976)
		1976		44					Aerial count	Kubik & Wadman (1977)
		1977		135					Aerial count	Kubik & Wadman (1978)
		1981	7/29	84					Aerial count, helicopter, good	ADF&G (1981)
		1982							Chinook and pink present	ADF&G (1982)
		1983	7/13	575					Aerial count, helicopter, excellent	Barrett et al. (1984)
	247-41-10200 -2053-3205-4067*								Note - Trib. of Canyon Creek by Dickason Mt., TYONEK D-5	
	Contact Creek *	1982		100				1,000	Chum present	ADF&G (1982)
	Tyonek D-5									
	247-41-10200 -2053-3205-4070 Tyonek D-5									
	247-41-10200 -2053-3205-4077*									
	Hayes River *									
	Tyonek D-5									
	247-41-10200 -2053-3205-4077 -5023*								Note - TYONEK D-6,north of Dickason Mt.	
	Dickason Creek *	1977		4					Aerial count	Kubik & Wadman (1978)
	Tyonek D-6	1982							Chinook and pink present	ADF&G (1982)
	247-41-10200 -2053-3205-4078 Tyonek D-5									
	247-41-10200 -2053-3205-4082 Tyonek D-5									
	247-41-10200 -2053-3205-4082 -5003 Tyonek D-5									
	247-41-10200 -2053-3205-4099 Tyonek D-6									
	247-41-10200 -2053-3205-4099- -0010									
	Red Salmon Lake	1973	9/14		250				Aerial ct., S. cub, Peak survey count	Barrett (1973a)
	Tyonek D-6	1974	9/09		160				Aerial ct., S. cub, Peak survey count	Barrett (1975a)
		1975	8/29		142				Aerial ct., S. cub, Peak survey count	Friese (1976a)
		1976	9/02		376	40			Aerial count, Super Cub	Friese (1976b)
		1976	9/14		35					ADF&G (1982)
		1977	8/24		150	1				ADF&G (1982)
		1977	9/01		372				Aerial count, Peak survey count	Namtvedt et al. (1979)
		1978	8/09		200					ADF&G (1982)
		1978	8/24		235				Aerial count	Waltemyer et al. (1980)
		1978	8/24			230				ADF&G, CF
		1979			180					Tarbox & Sanders (1980)
		1980	8/22		1,100					Tarbox & Sanders (1980)
		1980	8/22					900		ADF&G, CF
		1981	9/04		1,212					Tarbox et al. (1983)
		1982	8/26		1,000				ADF&G (1985c)-YENONE.TAB	
		1983	7/22		63					Mears et al
		1983	8/25		150					ADF&G, CF
		1984	8/08		100		200			ADF&G, CF
		1984	8/15		142		725			ADF&G, CF

Appendix A.1. Escapement surveys of adult salmon for systems with sockeye in the Northern District of Upper Cook Inlet.

#	Location Code/ Stream Name/ USGS Map No.	Year	Date	Chinook	Sockeye	Coho	Chum	Pink	Comments	Data Source
		1984	8/26		470		1,050			ADF&G, CF
		1985							No survey conducted	
	247-41-10200 -2053-3205-4112 Happy River Tyonek D-7 Talkeetna A-6	1982							Chinook and pink present	ADF&G (1982)
	247-41-10200 -2053-3205-4112 -5037 Canyon Creek (Happy River) Talkeetna A-6	1982							Punks present	ADF&G (1982)
	247-41-10200 -2053-3205-4112 -5045 Squaw Creek Talkeetna A-6	1973		10					Aerial count	Kubik & Trent (1974)
	247-41-10200 -2053-3205-4112 -5045-0010 Puntilla Lake Talkeetna A-6	1977	8/24		2,100				Aerial count	Namtvedt et al. (1979)
		1978	8/24		1,105				Aerial count	Waltemyer et al. (1980)
		1979	8/26		90					Tarbox & Sanders (1980)
		1980	8/22		550					Tarbox & Sanders (1980)
		1981			200					Tarbox et al. (1983)
		1993							Genetics crew went to sample this lake but arrived late. Found only carcasses. Run arrives here near 1st of month.	
	247-41-10200 -2053-3205-4112 -5049 Indian Creek Talkeetna A-6	1958	8/14	225					Suspected aerial count	Kubik (1964)
		1982							Chinook and chum present	ADF&G (1982)
	247-41-10200 -2053-3205-4112 -5050* Moose Creek * Tyonek D-7								Note - TALK A-6	
		1982			600					ADF&G (1982)
	247-41-10200 -2053-3205-4130* Portage Creek * (Skwentna River) Tyonek D-7								Note - TYONEK D-7	
		1958	7/07	2					Suspected aerial count	Kubik (1964)
	247-41-10200 -2053-3205-4282* Crystal Creek * Tyonek C-8								Note - TYONEK C-8	
		1972	8/29		33					ADF&G (1982)
		1972	9/06		11					ADF&G (1982)
	247-41-10200 -2053-3213 Hewitt Creek Tyonek D-4	Hist							Sockeye, pink, chinook present, max. count 312 coho (1954)	
		1962	8/02	0					Aerial count	Kubik (1964)
		1972	8/23		137				Ground survey	Barrett (1973a)
		1973	8/18		29				Boat survey	Barrett (1973a)
		1973	8/29		49				Boat survey	Barrett (1973a)
		1973	9/12		67				Boat survey	Barrett (1973a)
		1974	8/27		94				Boat survey	Barrett (1975a)
		1974	9/09		78				Boat survey	Barrett (1975a)
		1974	9/18		32				Boat survey	Barrett (1975a)
		1975	8/25		30				Boat survey	Friese (1976a)
		1975	9/03		30				Boat survey	Friese (1976a)
		1976	8/26		17				Boat survey	Friese (1976b)
		1976	9/19		236				Boat survey. Comb with Whiskey Lake	Friese (1976b)
		1977	8/28		14			17		ADF&G (1982)
		1977			8					Namtvedt et al. (1979)
		1978	8/29		93					Waltemyer et al. (1980)
		1979	9/07		40					ADF&G (1982)
		1979	8/26		29					ADF&G (1982)
		1980	8/22		50					ADF&G (1982)
		1980	9/11		50	50				ADF&G (1982)
		1982							Chinook and pink present	ADF&G (1982)
		1983	7/22	0	0	0	0	0	Cook Inlet Aquaculture Association	CIAA
		1984	8/28		41					ADF&G, CF
		1984	9/04		262					ADF&G, CF
		1989	8/22		300				Aerial count (c150), high water, turbid	ADF&G
		1990	7/19-8/15		12,943				Tot. escapement (weir)	CIAA
	247-41-10200 -2053-3213-0010 Whiskey Lake Tyonek D-4	Hist							Max. count 1,000 sockeye (1953)	
		1972	8/29		20				Aerial count, Super Cub	Barrett (1973a)
		1973	9/11		1				Boat survey	Barrett (1973a)
		1974	8/26		49				Boat survey	Barrett (1975a)
		1974	9/09		216				Boat survey	Barrett (1975a)
		1974	9/18		118				Boat survey	Barrett (1975a)
		1975	9/03		62				Boat survey	Friese (1976a)

Appendix A.1. Escapement surveys of adult salmon for systems with sockeye in the Northern District of Upper Cook Inlet.

#	Location Code/ Stream Name/ USGS Map No.	Year	Date	Chinook	Sockeye	Coho	Chum	Pink	Comments	Data Source
		1976	8/26		150				Boat survey	Friese (1976b)
		1976			17				Boat survey	Friese (1976b)
		1977			0					Namtvedt et al. (1979)
		1978			221					Waltemyer et al. (1980)
		1978	8/28		8					ADF&G (1982)
		1978	9/28		192	2				ADF&G (1982)
		1979			221				Peak survey count	ADF&G (1982)
		1979	8/26		190					ADF&G (1982)
		1979	9/07		110					ADF&G (1982)
		1980	8/22		425					ADF&G (1982)
		1980	9/11		300				Sport fish harvest	ADF&G (1982)
		1983	8/27		2,425					ADF&G, CF
		1984	8/28		1,520				Includes stream (marshy)	ADF&G, CF
		1984	9/04		4,301				Includes stream (marshy)	ADF&G, CF
	247-41-10200 -2053-3213-4063*								Note - not on USGS maps, overgrown, not surveyed in '84 or '85 TYONEK D-4	
	Christmas Tree Creek* Tyonek D-4	Hist							*Sockeye present*	
		1972	8/29		50				Aerial count, Super Cub	Barrett (1973a)
		1973	8/17		0				Boat survey	Barrett (1973a)
		1973	8/28		29				Boat survey	Barrett (1973a)
		1973	9/11		40				Boat survey	Barrett (1973a)
		1974	8/26		49				Boat survey	Barrett (1975a)
		1974	9/09		56				Boat survey	Barrett (1975a)
		1974	9/18		80				Boat survey	Barrett (1975a)
		1975	8/24		84				Boat survey	Friese (1976a)
		1975	9/03		55				Boat survey	Friese (1976a)
		1976	8/26		56				Boat survey	Friese (1976b)
		1976	9/09		54					ADF&G (1982)
		1977	8/28		30					Namtvedt et al. (1979)
		1978	8/29		67					Waltemyer et al. (1980)
		1979	8/26		60				Aerial survey	ADF&G, CF (1979)
		1979	9/07		40				Aerial survey	ADF&G, CF (1979)
		1980	8/22		0					ADF&G (1982)
		1980	9/11		50					ADF&G (1982)
	247-41-10200 -2053-3213-4066*								Note - called Whiskey Creek in '84 - '85 surveys TYONEK D-4	
	Huckleberry Creek * Tyonek D-4	Hist							Max. count 434 sockeye (1953)	
		1972	8/23	1					Ground survey	Barrett (1973a)
		1973	8/17		110				Boat survey	Barrett (1973a)
		1973	8/28		389				Boat survey	Barrett (1973a)
		1973	9/11		511				Boat survey	Barrett (1973a)
		1974	8/27		79				Boat survey	Barrett (1975a)
		1974	9/18		129				Boat survey	Barrett (1975a)
		1974	9/19		369				Boat survey	Barrett (1975a)
		1975	8/29		328				Boat survey	Friese (1976a)
		1975	9/03		263	1				ADF&G (1982)
		1976	9/09		182				Boat survey, Peak survey count	Friese (1976b)
		1977			25				Peak survey count	Namtvedt et al. (1979)
		1978			23					Waltemyer et al. (1980)
		1978	8/29		311				Combined with Whiskey Lake count	ADF&G (1982)
		1979	8/26		500					ADF&G (1982)
		1980	8/22		1,000					ADF&G (1982)
		1980	9/11		1,750					ADF&G (1982)
		1981	9/04		750				Aerial survey	ADF&G, CF
	247-41-10200 -2053-3213-4050 Tyonek D-4									
	247-41-10200 -2053-3213-4050 -0010									
	Hewitt Lake Talkeetna A-3	Hist							Max. count 3066 sockeye (1956)	
		1972	8/23		990				Boat survey	Barrett (1973a)
		1972	8/29		290				Aerial count, Super Cub	Barrett (1973a)
		1973	8/29		131				Boat survey	Barrett (1973a)
		1973	9/12		453				Boat survey	Barrett (1973a)
		1973	8/18		69				Boat survey	Barrett (1973a)
		1974	8/27		151				Boat survey	Barrett (1975a)
		1974	9/10		201				Boat survey	Barrett (1975a)
		1974	9/18		288				Boat survey	Barrett (1975a)
		1975	8/25		113					ADF&G (1982)
		1975	9/04		247				Boat survey	Friese (1976a)
		1976	8/26		419					ADF&G (1982)
		1976	9/10		1,981					ADF&G (1982)
		1976			2,017				Boat survey, Peak survey count	Friese (1976b)
		1977	8/29		729			1	Pink data source unknown	Namtvedt et al. (1979)
		1978			1,594				Peak survey count	Waltemyer et al. (1980)
		1978	8/29		225					ADF&G (1982)
		1979	8/26		275					ADF&G (1982)
		1979	9/07		415					ADF&G (1982)
		1980	8/22		1,205				Hewit & Whiskey Lakes combined	Tarbox et al. (1983)
		1980	9/11		1,100					ADF&G (1982)
		1981	9/04		3,250				Hewitt and Whiskey Lakes combined	Tarbox et al. (1983)
		1981	10/02		9,850				Hewitt & Whiskey Lks. comb .61* carcass	Tarbox et al. (1983)
		1984	8/28		1,756				Hewitt and Whiskey Lakes combined	ADF&G, CF
		1984	9/04		6,593				Hewitt and Whiskey Lakes combined	ADF&G, CF
		1985			370				Aerial ct.,Hewitt, Whiskey Lks., Hewitt, Huckleberry, & Christmas Tree Crk. comb.	King and Tarbox (1986)
		1990	7/19-8/15		12,913				Tot. esc. (weir count)	CIAA

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Appendix A.1. Escapement surveys of adult salmon for systems with sockeye in the Northern District of Upper Cook Inlet.

#	Location Code/ Stream Name/ USGS Map No.	Year	Date	Chinook	Sockeye	Coho	Chum	Pink	Comments	Data Source
	-2053-3220									
	Donkey Creek									
	Slough									
	Talkeetna A-3									
	Talkeetna B-4									
	247-41-10200									
	-2053-3220-4030									
	Donkey Creek	1963	7/06	0					Aerial count	Kubik (1964)
	Talkeetna A-3	1973		25					Aerial count	Kubik & Trent (1974)
		1977		159					Aerial count	Kubik & Wadman (1978)
		1978		163					Aerial count	Kubik & Wadman (1979)
		1982		100	1,000			5,000		ADF&G (1982)
		1994		570						
		1995		408						
		1996		548						
	247-41-10200									
	-2053-3220-4030									
	-5030									
	247-41-10200									
	-2053-3220-4030									
	-0010									
	Donkey Creek Lake									
	Talkeetna A-3									
	247-41-10200									
	-2053-3225									
	Johnson Creek	1958	7/21	0					Suspect aerial count	Kubik (1964)
	Talkeetna A-3	1962	7/27	0					Aerial count	Kubik (1964)
	Talkeetna A-5	1963	7/03	0					Aerial count	Kubik (1964)
		1982							Chinook, coho, & chum present	ADF&G (1982)
	247-41-10200									
	-2053-3225-4015									
	Red Creek	Hist							Chinook present	
	Talkeetna A-4	1958	7/21	27					Suspected aerial count	Kubik (1964)
	Tyonek D-6	1962	7/27	11					Aerial count	Kubik (1963)
		1977		1,511					Aerial count	Kubik & Wadman (1978)
		1978	8/24	0	0	0	0	0		ADF&G (1982)
		1978		385					Aerial count	Kubik & Wadman (1979)
		1981	7/29	749					Aerial count, helicopter, good	ADF&G (1981)
		1982						5,100		ADF&G (1982)
	247-41-10200									
	-2053-3225-4035									
	Talkeetna A-5									
	247-41-10200									
	-2053-3229									
	Kichatna River	1963	7/03	0					Aerial count	Kubik (1964)
	Talkeetna A-4	1977		120						ADF&G (1982)
	Talkeetna A-5	1982		1,000		10,000		10,000		ADF&G (1982)
	247-41-10200									
	-2053-3229-4002									
	Gagnan Creek *	1965	6/25	13					Test net	Kubik (1966)
	Talkeetna A-4	1981							Chinook & pink present	ADF&G (1982)
	247-41-10200									
	-2053-3229-4002									
	-5022									
	247-41-10200								Note - TALK A-5, Unnamed (Kichatna R)	
	-2053-3229-4009									
	Talkeetna A-4	1977		120					Aerial count	Kubik & Wadman (1978)
	247-41-10200									
	-2053-3229-4050									
	Nakochna River	1973		12					Aerial count	Kubik & Trent (1974)
	Talkeetna A-4	1974		2					Aerial count	Kubik & Chlupach (1975)
	Talkeetna A-5	1982		100				1,000		ADF&G (1982)
	247-41-10200									
	-2053-3229-4075									
	Talkeetna A-5									
	247-41-10200									
	-2053-3229-4079									
	Talkeetna A-5									
	247-41-10200									
	-2053-3229-4087									
	Talkeetna A-5									
	247-41-10200									
	-2053-3229-4099									
	Talkeetna A-5									
	247-41-10200									
	-2053-3229-4099									
	-5007									
	Talkeetna A-5									
	247-41-10200									

Appendix A.1. Escapement surveys of adult salmon for systems with sockeye in the Northern District of Upper Cook Inlet

#	Location Code/ Stream Name/ USGS Map No.	Year	Date	Chinook	Sockeye	Coho	Chum	Pink	Comments	Data Source
	-2053-3229-4110									
	Talkeetna A-5									
	Talkeetna B-5									
	247-41-10200									
	-2053-3238									
	Clearwater Creek	1962	7/27	13					Aerial count, peak	Kubik (1963)
	Talkeetna A-4	1963	7/06	0					Aerial count.	Kubik (1964)
	Talkeetna B-4	1973		6					Aerial count	Kubik & Trent (1974)
		1977		47					Aerial count	Kubik & Wadman (1978)
		1982		100				5,000		ADF&G (1982)
	247-41-10200									
	-2053-3249									
	West Fork Yentna	1976			550					Namtvedt et al. (1979)
	River	1977			4,000					Namtvedt et al. (1979)
	Talkeetna B-4	1978			6,000					Waltemyer et al. (1980)
	Talkeetna B-5	1979			456				Glacially occluded	Tarbox & Sanders (1980)
		1980	9/10		5,500				Includes 1,630 carcasses	Tarbox & Sanders (1980)
		1981	8/27		9,000				Includes 1,000 carcasses	Tarbox et al. (1983)
		1982	8/20		10,310			210		ADF&G, CF
		1983	8/25		630				Upstream from Fourth of July Creek	ADF&G, CF
		1983	9/07		9,660					ADF&G, CF
		1984	8/28		5,700					ADF&G, CF
		1984	9/04		6,350					ADF&G, CF
		1985			8,200				Aerial ct., Low visibility, turbid water	King and Tarbox (1986)
		1989	8/22		4,000					
	247-41-10200									
	-2053-3249-4101									
	Talkeetna B-5									
	247-41-10200									
	-2053-3250									
	East Fort Yentna									
	River									
	Talkeetna B-4									
	247-41-10200								Note - TALK B-4	
	-2053-3250-4008*									
	Rich Creek *	1982							Few pinks	ADF&G, SF
	Talkeetna B-4									
	247-41-10200								Note - TALK B-4	
	-2053-3250-4018*									
	Flag Creek *	1982							Pinks present	ADF&G, SF
	Talkeetna River Drainage									
	247-41-10200-2370									
	Talkeetna River	Hist							Large number chums (1953)	
	Talkeetna B-1	1976	8/23				410			ADF&G (1982)
	Talk. Mtns. B-4	1981	7/29	2,129					Aerial count, helicopter, good	ADF&G (1981)
		1989		548					Chinook sport harvest	ADF&G, SF, Engle
	247-41-10200-2370-3041									
	Chunilna Creek	Hist							Max. counts 349 chinook (1964), coho present	
	/Clear Creek								10,000 chums (1953), 75,000 pinks (1954)	
	Talkeetna B-1	1961	7/14	300					Ground survey	Stefanich (1962)
	Talk. Mtns. C-6	1962	7/11	3					Aerial count, Peak	Kubik (1963)
		1963	7/29	38					Aerial count	Kubik (1964)
		1964	7/21	319					Boat survey	Kubik (1965)
		1964	8/05	9					Aerial count	Kubik (1965)
		1965	8/06	8					Aerial count	Kubik (1966)
		1966		300					Aerial count, Total escapement estimate	Kubik (1967)
		1968		1,000					Aerial count	Kubik (1969)
		1969		375					Aerial count	Kubik (1970)
		1969		125					Excellent observation - TRM 0.0-2.0	Stewart & Flagg (1969)
		1970		58					Aerial survey, poor cond.- high water	Kubik (1971)
		1970		72	7,000					ADF&G (1982)
		1971		5					Aerial count - Poor	Wangsjold (1972)
		1972	7/30	91					Aerial count	Wangsjold (1973)
		1973	7/25	245						ADF&G (1982)
		1973	7/28	292					Aerial count	Wangsjold (1974)
		1974	7/27	236						ADF&G (1982)
		1974	7/31	283					Aerial count, helicopter	Wangsjold (1975)
		1974		523						ADF&G (1982)
		1975	7/28	101					Aerial count, helicopter	Wangsjold (1976)
		1976	7/16	1,220						ADF&G (1982)
		1976	7/23	1,237					Aerial count, helicopter	Wangsjold (1977)
		1976			30				Includes Moma & Papa Bear Lakes	Tarbox & Sanders (1980)
		1977			75				Includes Moma & Papa Bear Lakes	Tarbox & Sanders (1980)
		1977		769					Aerial count, fixed wing	Wangsjold (1978)
		1978			310				Includes Moma & Papa Bear Lakes	Tarbox & Sanders (1980)
		1978		997					Aerial count, helicopter	Wangsjold (1979)
		1979			365				Includes Moma & Papa Bear Lakes	Tarbox & Sanders (1980)
		1979		864					Aerial count, helicopter , poor	Wangsjold (1980)
		1980		172	6	661	385	622		
		1980			320				Includes Moma & Papa Bear Lakes	Tarbox & Sanders (1980)
		1980							No count - high, turbid water	Bentz (1982)
		1981		169					Suspected aerial count, poor	Bentz (1982)
		1982	7/21	982					Aerial survey, helicopter, fair	ADF&G (1983a)
		1982				2,500	7,500	52,100	Upper Cook Inlet (UCI) surveys	ADF&G, CF
		1983		938					Clear Creek	Hepler & Bentz (1984)
		1983	8/01	806					Aerial count, helicopter, good	Barrett et al. (1984)
		1984	7/25	1,520					Aerial count, helicopter, poor	Barrett et al. (1985)

Appendix A.1. Escapement surveys of adult salmon for systems with sockeye in the Northern District of Upper Cook Inlet.

#	Location Code/ Stream Name/ USGS Map No.	Year	Date	Chinook	Sockeye	Coho	Chum	Pink	Comments	Data Source
		1985		750					Includes Mama & Papa Bear Lakes	King and Tarbox (1986)
		1985		2,430						ADF&G, SF, Engle (91)
		1987		1,949						ADF&G, SF, Engle (91)
		1988		4,850						ADF&G, SF, Engle (91)
		1989		1,918					Chinook sport harvest	ADF&G, SF, Engle (91)
		1990		2,380						ADF&G, SF, Engle (91)
		1991		1,974						ADF&G, SF, Engle (91)
		1992		1,530						ADF&G, SF, Sweet(93)
		1993		856						ADF&G, SF, Sweet(93)
		1994		1,204						ADF&G, SF, Palmer
		1995		1,923						ADF&G, SF, Palmer
		1996		2,091						ADF&G, SF, Palmer, 96
	247-41-10200-2370 -3041-4010 Talkeetna B-1 Talk. Mtns. B-6									
	247-41-10200-2370 -3041-4010-0010								Note - All Mama Bear & Papa Bear Lake data combined.	
	Mama Bear Lake	1976	7/23		30	100		7,700		ADF&G (1982)
	Talk. Mtns. B-6	1977	9/12		75					Namtvedt et al. (1979)
		1977	9/12			23				ADF&G, CF
		1978	8/29		310					Waltemyer et al. (1980)
		1978	8/29			250		20,250		ADF&G, CF
		1980	8/18		300			10,000		ADF&G (1982)
		1981	8/25		450			100		ADF&G (1982)
		1982	8/23		1,315	100				ADF&G, CF
		1984	8/26		220				Visibility poor	ADF&G, CF
		1984	8/30		421			2,500	Pinks in stream	ADF&G, CF
	247-41-10200-2370 -3041-4010-0015 Papa Bear Lake Talk. Mtns. B-6								Note - See Mama Bear Lake	
	247-41-10200-2370 -3041-4080 Talk. Mtns. C-6									
	247-41-10200-2370 -3041-4101 Talk. Mtns. C-6									
	247-41-10200-2370 -3041-4131 Talk. Mtns. C-6									
	247-41-10200-2370 -3041-4180 Talk. Mtns. C-6									
	247-41-10200-2370 -3041-4190 Talk. Mtns. C-6									
	247-41-10200-2370 -3041-4200 Talk. Mtns. C-6									
	247-41-10200-2370 -3041-4200-5021 Talk. Mtns. C-6									
	247-41-10200-2370 -3041-4200-5021-6020 Talk. Mtns. C-6									
	247-41-10200-2370 -3041-4200-5021-6021 Talk. Mtns. C-6									
	247-41-10200-2370-3080 Talk. Mtns. B-6									
	247-41-10200-2370 -3080-0010									
	Larson Lake	Hist		Max. count 559 sockeye (1956)					Sockeye, coho, pinks and chums present	
	Talk. Mtns. B-6	1972	9/07		300				Aerial count, Super Cub	Barrett (1973a)
		1973	9/06		20				Aerial count, Super Cub	Barrett (1973a)
		1974	9/09		19				Aerial count, Super Cub	Barrett (1975a)
		1975	8/30		32					ADF&G (1982)
		1975	7/06		63				Aerial count, Super Cub	Friese (1976a)
		1975		9/13	47					ADF&G (1982)
		1976	8/23		485					ADF&G (1982)
		1976	9/02		327					ADF&G (1982)
		1976			85				Aerial count, Super cub. Peak count	Friese (1976b)
		1977			330				Aerial count	Namtvedt et al. (1979)
		1977	8/05		50				Entire System	ADF&G (1982)
		1977	8/10		150				Entire system	ADF&G (1982)
		1977	8/16		1,300				Entire system	ADF&G (1982)
		1977	8/29		2,500				Entire system	ADF&G (1982)
		1977	9/12		1,655				Entire system	ADF&G (1982)
		1978			117				Aerial count. Peak survey count	Waltemyer et al. (1980)
		1979	8/28		160					Tarbox & Sanders (1980)

Appendix A.1. Escapement surveys of adult salmon for systems with sockeye in the Northern District of Upper Cook Inlet.

#	Location Code/ Stream Name/ USGS Map No.	Year	Date	Chinook	Sockeye	Coho	Chum	Pink	Comments	Data Source
		1980							No count	Tarbox et al. (1983)
		1981			4,600					Tarbox et al. (1983)
		1981	8/25		5,500					ADF&G (1982)
		1982	8/23		1,200					ADF&G, CF
		1982			2,150	41	3	5,000		ADF&G, CF
		1983	9/07		650					ADF&G, CF
		1984	7/01-8/20	0	35,254	8	0	732	Weir count, CIAA *	King and Tarbox (1986)
		1985	7/14-8/29	10	37,874	10	25	54	Weir count, Peak on 7/24-7/25 (CIAA)	King and Tarbox (1986)
		1986	7/21-8/26	0	32,322	97	105	1,938	Weir count, Peak on 7/29 (CIAA)	King and Tarbox (1986)
		1987	6/15-8/26	5	16,753	16	0	37	Weir count, Two peaks, 7/29, 8/05 (CIAA)	
		1997	7/18-9/13		40,282				Weir count	ADF&G
	247-41-10200-2370 -3090									
	Sheep River * (Name correction) Talk. Mtns. B-6	1973							Aerial survey. Glacially occluded, no count	Watsjold (1974)
	247-41-10200-2370 -3090-4049 Talk. Mtns. B-6									
	247-41-10200-2370 -3090-4049-0010 Rainbow Lake Talk. Mtns. B-6									
	247-41-10200 -2370-3171									
	Disappointment Creek Talk. Mtns. B-6	1958	8/01	5					Suspected aerial count	Kubik (1964)
		1962	7/19	0					Aerial count	Kubik (1964)
		1974		20					Aerial count, fixed wing	Watsjold (1974)
	247-41-10200 -2370-3301									
	Prairie Creek Talk. Mtns. C-5	Hist							Max. count 275 chinook (1963) sockeye present	
	Talk. Mtns. C-4	1962	7/30	142					Aerial count	Kubik (1963)
		1963	8/07	275					Aerial count	Kubik (1964)
		1964	7/17	138					Aerial count	Kubik (1965)
		1965	7/11	30					Aerial count	Kubik (1966)
		1966		153					Aerial count	Kubik (1967)
		1970	7/29	675						ADF&G (1982)
		1970		820					Ground survey	Watsjold (1973)
		1971		40						ADF&G (1982)
		1972		630					Ground survey	Watsjold (1973)
		1972	8/21		202				Ground survey	Barrett (1973a)
		1973	7/29	3,286						ADF&G (1982)
		1973	8/23		21				Ground survey	Barrett (1973a)
		1973	9/06		21				Ground survey	Barrett (1973a)
		1973	9/17		7				Ground survey	Barrett (1973a)
		1973		4,190					Ground survey	Watsjold (1974)
		1974	7/26	1,498					Ground survey	Watsjold (1975)
		1974	8/25		37				Ground survey	Barrett (1975a)
		1974	9/05		12				Ground survey	Barrett (1975a)
		1974	9/17		2				Ground survey	Barrett (1975a)
		1975	8/04	369					Ground survey	Watsjold (1976)
		1975	8/23		36					ADF&G (1982)
		1975	9/02		49	44			Ground survey	Friese (1976a)
		1975	9/26		5	12				ADF&G (1982)
		1976	7/20	6,513					Ground survey	Watsjold (1977)
		1976	8/25		81	2			Ground survey	Friese (1976b)
		1976	9/03		80	36				ADF&G (1982)
		1976	9/10		60	11				ADF&G (1982)
		1976		339						ADF&G (1982)
		1977		5,790					Ground survey	Watsjold (1978)
		1977	8/27	9	120				Chinook data source unknown	Namtvedt et al. (1979)
		1978			120				Ground survey	Waltemyer et al. (1980)
		1978		5,154					Ground survey	Watsjold (1979)
		1980							No count - high, turbid water	Bentz (1982)
		1981	7/30	1,900					Aerial sur., < than 10% morts at this time	ADF&G (1981)
		1981		1,875					Aerial, cond. poor	Bentz (1982)
		1982	7/31	3,844					Aerial count, helicopter, cond. exc.	ADF&G (1983a)
		1983	7/20	871					Ground survey, cond. exc.	Barrett et al. (1984)
		1983		3,200					Aerial sur.,fix Est. based on grd. & aerial c	Barrett et al. (1984)
		1984	7/24	9,000					Aerial count, fixed wing, cond. good	Barrett et al. (1985)
		1984	8/08		85					ADF&G, CF
		1984	8/15		40					ADF&G, CF
		1985							No counts conducted	
		1985		6,500						ADF&G, SF, Bartlett
		1986		8,500						King and Tarbox (1988)
		1987		9,138						ADF&G, SF, Bartlett
		1988		8,650						ADF&G, SF, Bartlett
		1988		9,280					Esc. index count	ADF&G,SF, Sweet(93)
		1989		9,463					Aerial, rotary wing	ADF&G, SF, Engle
		1990		9,113						ADF&G, SF, Engle
		1991		6,770						ADF&G, SF, Bartlett
		1992		4,453						ADF&G, SF, Whitmore
		1993		3,023						ADF&G,SF, Sweet(93)
		1994		2,251						ADF&G,SF, Palmer
		1995		3,884						ADF&G,SF, Palmer
		1996		5,037						ADF&G,SF, Palmer, 96
	247-41-10200-2370 -3301-0010 Talk. Mtns. C-4									

Appendix A.1. Escapement surveys of adult salmon for systems with sockeye in the Northern District of Upper Cook Inlet

#	Location Code/ Stream Name/ USGS Map No.	Year	Date	Chinook	Sockeye	Coho	Chum	Pink	Comments	Data Source
	247-41-10200-2370 -3301-0020 Stephan Lake Talk. Mtns. C-4	Hist							Max. count 6,500 sockeye (1951)	
		1972	8/21		38				Boat survey	Barrett (1973a)
		1972	9/07	0	0	0	0	0	Aerial count, Super Cub	Barrett (1973a)
		1972			166				Peak survey count	ADF&G (1982)
		1973	8/23		85				Boat survey.	Barrett (1973a)
		1973	9/06		106				Boat survey	Barrett (1973a)
		1973	9/17		128				Boat survey	Barrett (1973a)
		1973			234				Peak survey count	ADF&G (1982)
		1974	8/25		13				Boat survey	Barrett (1975a)
		1974	9/05		18				Boat survey	Barrett (1975a)
		1974	9/17		27				Boat survey	Barrett (1975a)
		1974			78				Peak survey count	ADF&G (1982)
		1975	8/24		124					ADF&G (1982)
		1975	9/03		155					ADF&G (1982)
		1975	9/27		136					ADF&G (1982)
		1975			212				Peak survey count by boat	Friese (1976a)
		1976	8/25		197					ADF&G (1982)
		1976	9/10		346	11				ADF&G (1982)
		1976			381				Peak survey count by boat	Friese (1976b)
		1977	8/27		419				Peak survey count by boat	Namtvedt et al. (1979)
		1978	9/12		1,022	2				Waltemyer et al. (1980)
		1980	8/18		220				Includes Prairie Ck & Murder Lakes	Tarbox et al. (1983)
		1981	8/25		475				Includes Prairie Ck & Murder Lakes	Tarbox et al. (1983)
		1983	8/23	0	0	0	0	0	No counts, bad weather	ADF&G, CF
		1984	8/08		0				Visibility poor	ADF&G, CF
		1984	8/15		150	G states that				ADF&G, CF
		1993		93 of Stephan Lk. Lodge has 19 yrs. of run data for Stephan Lk., Prarie Creek.						ADF&G, CF, (Davis)
	247-41-10200-2370 -3301-4021 Talk. Mtns. C-5									
	247-41-10200-2370 -3301-4034 Talk. Mtns. C-4									
	247-41-10200-2370 -3301-4044 Talk. Mtns. C-4									
	247-41-10200 -2370-3320 Talk. Mtns. C-4									
	247-41-10200 -2370-3328 Talk. Mtns. C-4									
	247-41-10200 -2370-3332 Talk. Mtns. C-4									
	247-41-10200 -2370-3340 Talk. Mtns. C-4									
	247-41-10200 -2370-3350 Talk. Mtns. C-4									
	Chulitna River Drainage									
	247-41-10200-2381 Chulitna River Talkeetna B-1 Healy B-5	Hist							Chinook, coho, pinks and chinook	
		1958	7/11		3				Suspected aerial count, peak	Kubik (1964)
		1973			42				Aerial count, helicopter, East fork	Watsjold (1974)
		1973			219				Aerial count, helicopter, West fork	Watsjold (1974)
		1976	7/23		124				Aerial count, fixed wing	Watsjold (1977)
		1977			229				Aerial count, fixed wing	Watsjold (1978)
		1978			62				Aerial count, fixed wing	Watsjold (1979)
		1979							No count conducted	Watsjold (1980)
		1980							No count - high, turbid water	Bentz (1982)
		1981							No count - high, turbid water	Bentz (1982)
		1982			644				Aerial count, helicopter, excellent	ADF&G (1981)
		1982			863				Esc. index count, Palmer	ADF&G, SF, Sweet 93
		1983			3,845					Hepler & Bentz (1984)
		1983			4,058				Esc. index count, Palmer	ADF&G, SF, Sweet 93
		1984	7/24		4,191				Boat survey, raft, excellent	Barrett et al. (1985)
		1984	8/12		1,036				Boat survey, raft, excellent	Barrett et al. (1985)
		1985			783					ADF&G, SF, Bartlett 91
		1987			5,252					ADF&G, SF, Bartlett 91
		1990			2,681					ADF&G, SF, Bartlett 91
		1991			4,410					ADF&G, SF, Bartlett 91
		1992			2,527				Esc. index count, Palmer	ADF&G, SF, Sweet 93
		1993			2,076				Esc. index count, Palmer	ADF&G, SF, Sweet 93
		1994			1,806					ADF&G, SF, Palmer
		1995			3,460					ADF&G, SF, Palmer
		1996			4,172					ADF&G, SF, Palmer 96
	247-41-10200-2381 -3051									

Appendix A.1. Escapement surveys of adult salmon for systems with sockeye in the Northern District of Upper Cook Inlet

#	Location Code/ Stream Name/ USGS Map No.	Year	Date	Chinook	Sockeye	Coho	Chum	Pink	Comments	Data Source
	Talkeetna B-1									
	247-41-10200-2381 -3090 Talkeetna C-1									
	247-41-10200-2381 -3130									
	Troublesome Creek Talkeetna C-1	Hist							Max. count 100 chinook (1958)	
		1958	7/07	100					Suspected aerial count	Kubik (1964)
		1970		5					Ground survey	Waarjold (1972)
		1971	7/21	5						ADF&G (1982)
		1971	7/27	5						ADF&G (1982)
		1971	9/08	5			70			ADF&G (1982)
		1972	8/26		182					ADF&G (1982)
		1972	7/30	5					Aerial count, fixed wing	Waarjold (1973)
		1973	7/26	7					Aerial count, fixed wing	Waarjold (1974)
		1973	9/05		141					ADF&G (1982)
		1973	9/26			5				ADF&G (1982)
		1974	7/25	0	0	0	0	0		ADF&G (1982)
		1974		14					Aerial count, fixed wing	Waarjold (1975)
		1976	7/23	92					Aerial count, fixed wing	Waarjold (1977)
		1977		95					Aerial count, fixed wing	Waarjold (1978)
		1978		192					Ground survey	Waarjold (1979)
		1979		58					Aerial count, fixed wing	Waarjold (1980)
		1979	10/29				100		Cook Inlet Aquaculture Assoc.	
		1980							No count - high, turbid water	Bentz (1982)
		1981							No count - high, turbid water	Bentz (1982)
		1982	8/12	36					Aerial count, helicopter .Excellent	ADF&G (1983a)
		1982				39	585	172	Upper Cook Inlet Survey	ADF&G, CF
	247-41-10200-2381 -3161								Also spelled "Tokichitna River"	
	Tokositna River	Hist							Max. count 97 sockeye (1954)	
	Talkeetna C-1	1958	7/25	0					Suspected aerial count	Kubik (1964)
	Talkeetna C-2	1981							Sockeye & coho present	ADF&G (1982)
	247-41-10200-2381 -3161-4016									
	Alder Creek	1958	7/22	0					Suspected aerial count	Kubik (1964)
	Talkeetna C-1	1963	8/19	0					Aerial count	Kubik (1964)
									Note - Trib. of Alder Creek,	
	247-41-10200-2381 -3161-4016-5010								TALK C-1	
	Unnamed Creek* Talkeetna C-1	1982				3				ADF&G (1983a)
	247-41-10200-2381 -3161-4071 Talkeetna C-1									
	247-41-10200-2381 -3161-4071-0010									
	Swan Lake	Hist							Max. count 150 sockeye (1954)	
	Talkeetna C-1	1972			302				Includes Slim Creek and T-Creek	Tarbox & Sanders (1980)
		1973			310				Includes Slim Creek and T-Creek	Tarbox & Sanders (1980)
		1974			386				Includes Slim Creek and T-Creek	Tarbox & Sanders (1980)
		1975			465				Includes Slim Creek and T-Creek	Tarbox & Sanders (1980)
		1975	8/22		229					ADF&G (1982)
		1975	8/30		299					ADF&G (1982)
		1975	9/25		90					ADF&G (1982)
		1976			516				Includes Slim Creek and T-Creek	Tarbox & Sanders (1980)
		1977			827				Includes Slim Creek and T-Creek	Tarbox & Sanders (1980)
		1978	8/25		734					ADF&G (1982)
		1978	9/14		263					ADF&G (1982)
		1978	9/21		234					ADF&G (1982)
		1978			917				Includes Slim Creek and T-Creek	Tarbox & Sanders (1980)
		1979			40				Aerial sur., fixed, inc. Slim Creek & T-Cree low visibility, & turbid water	Tarbox & Sanders (1980)
		1980	8/18		1				Aerial survey, fixed wing	ADF&G (1982)
		1981			505				Aerial sur., fixed, inc. Slim Creek & T-Cree	ADF&G, CF
		1981	8/20		660					ADF&G, CF
		1981	8/25		350				Aerial sur., fixed, inc. Slim Creek & T-Cree	Tarbox et al. (1983)
		1982	8/20		760				Aerial sur., fixed, inc. Slim Creek & T-Creek,	
		1983	8/23	0	0	0	0	0	Aerial survey, fixed, visibility poor, turbid	ADF&G, CF
		1983	9/07		340					ADF&G, CF
		1984	8/26		48				Aerial survey, fixed. S. lake and stream to Tokositna River occluded, cnt. inc. 3 carcasses	ADF&G, CF
		1984	9/30		21				Visibility poor, count includes one carcass	ADF&G, CF
		1985							Aerial sur., fixed. Vis. poor, no counts conducted	
	247-41-10200-2381 -3161-4071-5020								Note - NW end of Swan Lake, TALK C-1 overgrown, not surveyed 1984-85	
	Slim Creek *	Hist							Max. count 150 sockeye (1954)	
	Talkeetna C-1	1970	8/24		516					
		1972	8/25		63				Ground survey	Barrett (1973a)
		1973	8/22	0	0	0	0	0	Ground survey	Barrett (1973a)
		1973	9/05		53				Ground survey	Barrett (1973a)
		1973	9/18		168				Ground survey	Barrett (1973a)
		1973			195				Ground survey, Peak survey count	Barrett (1973a)
		1974	8/24	0	0	0	0	0	Ground survey	Barrett (1975a)
		1974	9/06		83				Ground survey	Barrett (1975a)
		1974	9/17		195				Ground survey	Barrett (1975a)
		1975			176				Ground survey, Peak survey count	Friese (1976a)

Appendix A.1. Escapement surveys of adult salmon for systems with sockeye in the Northern District of Upper Cook Inlet.

#	Location Code/ Stream Name/ USGS Map No.	Year	Date	Chinook	Sockeye	Coho	Chum	Pink	Comments	Data Source
		1975	9/25		50					ADF&G (1982)
		1975	8/30		50					ADF&G (1982)
		1975	9/26		75					ADF&G (1982)
		1976	8/24		69				Ground survey	Friese (1976b)
		1976	9/08		64					ADF&G (1982)
		1977	8/24		755	3				ADF&G (1982)
		1977	9/12		739					ADF&G (1982)
		1977			82					Namitvedt et al. (1979)
		1978			253					Waltemyer et al. (1980)
		1978			263				Peak survey count	ADF&G (1982)
		1979	8/28		40					ADF&G (1982)
	247-41-10200-2381 -3161-4071-5031								Note - S end of Swan Lake. TALK C-1	
	T-Creek *	Hist							Max. count 400 sockeye (1954)	
	Talkeetna C-1	1972	8/26		182				Ground survey	Barrett (1973a)
		1972			239				Peak survey count	ADF&G (1982)
		1973	8/22		35				Ground survey	Barrett (1973a)
		1973	9/05		88				Ground survey	Barrett (1973a)
		1973	9/18		57				Ground survey	Barrett (1973a)
		1973			115				Peak survey count	ADF&G (1982)
		1974	8/24		103				Ground survey	Barrett (1975a)
		1974	9/05		118				Ground survey	Barrett (1975a)
		1974	9/17		42				Ground survey	Barrett (1975a)
		1974			191				Peak survey count	ADF&G (1982)
		1975	8/22		229					ADF&G (1982)
		1975	8/30		223					ADF&G (1982)
		1975			289				Ground survey, Peak survey count	Friese (1976a)
		1976	8/24		447				Ground survey	Friese (1976b)
		1976	9/08		39	50				ADF&G (1982)
		1977			745				Peak survey count,chum & pink present	Namitvedt et al. (1979)
		1978			654					Waltemyer et al. (1980)
	247-41-10200-2381 -3161-4071-5031-0020 Talkeetna B-1									
	247-41-10200-2381 -3161-4085									
	Bunco Creek	1973	8/02		34				Aerial count, fixed wing	Watsjold (1974)
	Talkeetna C-2	1976	7/23		112				Aerial count, fixed wing	Watsjold (1977)
		1977			136				Aerial count, fixed wing	Watsjold (1978)
		1978			153				Aerial count, fixed wing	Watsjold (1979)
		1980							No count - high, turbid water	Bentz (1982)
		1981							No count - high, turbid water	Bentz (1982)
		1982	8/07		198				Aerial count, helicopter, fair	ADF&G (1983a)
		1983	8/02		279				Ground survey - Good	Barrett et al. (1984)
		1983			523				Estimate based on ground & aerial counts	Barrett et al. (1984)
		1984	7/26	0	0	0	0	0	Aerial survey, helicopter, poor survey cond	CIAA
		1984	8/10		51				Aerial count, helicopter , good	Barrett et al. (1985)
	247-41-10200-2381 -3161-4085-0010									
	Bunco Lake	Hist							Good escapement of pinks in 1964	
	Talkeetna C-2									
	247-41-10200-2381 -3179									
	Spink Creek	1958	7/07		60				Suspected aerial count	Kubik (1964)
	Talkeetna C-1	1963	8/19		0				Aerial count	Kubik (1964)
	Talkeetna D-1	1982	8/07			12			Aerial count, helicopter , exc.	ADF&G (1983a)
	247-41-10200-2381 -3179-0010 Spink Lake Talkeetna D-1									
	247-41-10200-2381 -3180									
	Byers Creek	Hist							Few chinook, 1,200 sockeye (1964);	
	Talkeetna C-1								good pink escapement (1964)	
	Talkeetna D-1	1964	8/27		2				Aerial count	Kubik (1965)
		1965	8/06		4				Aerial count	Kubik (1966)
		1971			3				Ground survey/Aerial count	Watsjold (1972)
		1971	8/29		2				Aerial count	ADF&G (1982)
		1971	9/08			35	1,100			ADF&G (1982)
		1972	7/30		7				Aerial count	Watsjold (1973)
		1973	7/26		1				Aerial count	Watsjold (1974)
		1973	9/26			49				ADF&G (1982)
		1974	7/25		0				Aerial count, fixed wing	Watsjold (1975)
		1976	7/23		53				Aerial count, fixed wing	Watsjold (1977)
		1976	8/23			50		39		ADF&G (1982)
		1977			69				Aerial count, fixed, Peak survey count	Watsjold (1978)
		1977	8/04		1					ADF&G (1982)
		1977	8/05		2	300				ADF&G (1982)
		1977	8/10			200				ADF&G (1982)
		1977	8/16			100				ADF&G (1982)
		1977	9/12			6	314			ADF&G (1982)
		1979	10/29			1,000	500	0	Cook Inlet Aquaculture Ass'n (CIAA)	
		1979			28				Aerial count, fixed wing	Watsjold (1980)
		1980							No count - high, turbid water	Bentz (1982)
		1981							No count - high, turbid water	Bentz (1982)
		1982			15		36	417	1,110	ADF&G, CF
		1982	8/12		7				Aerial count, helicopter, exc.	ADF&G (1983a)
	247-41-10200-2381									

Appendix A.1. Escapement surveys of adult salmon for systems with sockeye in the Northern District of Upper Cook Inlet

#	Location Code/ Stream Name/ USGS Map No.	Year	Date	Chinook	Sockeye	Coho	Chum	Pink	Comments	Data Source
	-3180-0010									
	Byers Lake	1976			50					Namesvedt et al. (1979)
	Talkeetna C-1	1977			300				Peak survey count	Namesvedt et al. (1979)
		1981	8/27		275	100		200	Coho & pink data source unknown	Tarbox et al. (1983)
		1985			139					King and Tarbox (1986)
	247-41-10200-2381 -3220 Horseshoe Creek Talk. Mtns. D-6									
	247-41-10200-2381 -3223*								Note - TALK MTS D-6	
	Coal Creek *	Hist							Punks and Chinook present	
	Talk. Mtns. D-6	1962	7/30		5				Aerial count. Peak	Kubik (1963)
		1963	8/19		0				Aerial count. Peak	Kubik (1964)
		1964	8/27		5			200	Suspect count. Punk count all carcasses	ADF&G. CF
	247-41-10200-2381 -3234 *								Note - TALK MTS D-6	
	Pass Creek	1962	7/30		15				Aerial count. Peak	Kubik (1963)
	Talk. Mtns. D-6	1963	9/19		0				Aerial count. Peak	Kubik (1964)
		1973			8				Aerial count. fixed wing	Watsjold (1974)
	247-41-10200-2381 -3240									
	Honolulu Creek	1973	7/26		17				Aerial count. fixed wing	Watsjold (1974)
	Healy A-6	1973	7/29		8					ADF&G (1982)
	Healy A-5	1974	7/25		12				Aerial count. fixed wing	Watsjold (1975)
		1976	7/23		24				Aerial count. fixed wing	Watsjold (1977)
		1977			36				Aerial count. fixed wing	Watsjold (1978)
		1978			13				Aerial count. fixed wing	Watsjold (1979)
		1979			37				Aerial count. fixed wing	Watsjold (1980)
		1980							No count - high, turbid water	Bentz (1982)
		1981							No count - high, turbid water	Bentz (1982)
		1982	8/12		27				Aerial count. helicopter. excellent	ADF&G (1983a)
	247-41-10200-2381 3240-4020 Little Honolulu Creek Healy A-6									
	247-41-10200-2381 -3260									
	East Fork Chulitna River Healy A-6	Hist							Chinook present, maximum sockeye count 500 (1964)	
	Healy A-5	1973	8/02		42				Aerial count	ADF&G (1982)
		1974	7/25		41				Aerial count. fixed wing	Watsjold (1975)
		1975	8/04		7				Aerial count. fixed wing	Watsjold (1976)
		1976	7/23		112				Aerial count. fixed wing	Watsjold (1977)
		1977			168				Aerial count. fixed wing	Watsjold (1978)
		1978			59				Aerial count. fixed wing	Watsjold (1979)
		1979							No count - high, turbid water	Bentz (1982)
		1980							No count - high, turbid water	Bentz (1982)
		1982	8/12		119				Aerial count. helicopter. excellent	ADF&G (1983a)
	247-41-10200-2381 *								Note - HEALY A-6	
	Middle Fork	1973			219				Aerial count	ADF&G (1982)
	Chulitna River *	1973	8/02		206					ADF&G (1982)
	Healy A-6	1974	7/25		159				Aerial count. fixed wing	Watsjold (1975)
		1975	8/04		55				Aerial count. fixed wing	Watsjold (1976)
		1976	7/23		1,870				Aerial count. fixed wing	Watsjold (1977)
		1977			1,782				Aerial count. fixed wing	Watsjold (1978)
		1978			900				Aerial count. fixed wing	Watsjold (1979)
		1980							No count - high, turbid water	Bentz (1982)
		1981							No count - high, turbid water	Bentz (1982)
		1982			363					ADF&G. CF
		1982	8/12		644				Aerial count. helicopter. excellent	ADF&G (1983a)
		1983	7/19		3,815				Boat survey. raft. excellent	Barrett et al. (1984)
		1983	8/03		958				Boat survey. raft. excellent	Barrett et al. (1984)
		1984			4,191					Hepler & Bentz (1985)
		1985			783					ADF&G. SF-Palmer
		1986			5,152					
		1987			2,681					
		1988			4,410					ADF&G. SF-Palmer
7	247-41-10100 Little Susitna River Tyonek B-1 Anchorage D-6	1973			374					
		1981				6,750				ADF&G. SF. Palmer
		1982				6,809				ADF&G. SF. Palmer
		1983				2,666				Engle et al
		1983			929					ADF&G. SF. Bartlett
		1984				20,991				ADF&G. SF
		1984			558					ADF&G. SF. Bartlett
		1985				3,510				ADF&G. SF
		1985			1,005					ADF&G. SF. Bartlett
		1986				1,038			Incomplete survey	ADF&G. SF. Bartlett
		1986	7/17-9/08		52	2,991	7,511	23,639	35,819 Weir count(partial)	ADF&G. SF
		1987			1,386		4,865			ADF&G. SF. Bartlett
		1987	7/20-7/31		112	1,300	1,181	4,006	10 Weir count(partial, high H_2O at times	ADF&G. SF
		1988			7,400		20,191		Weir count	ADF&G. SF. Bartlett
		1988	6/02-9/12		7,712	2,642	21,438	23,679	15,611 Weir count	ADF&G. SF
		1989			4,367		15,232		Weir count, minimum est. (flood, minus est. harvest above weir	ADF&G. SF. Bartlett

Appendix A.1. Escapement surveys of adult salmon for systems with sockeye in the Northern District of Upper Cook Inlet

#	Location Code/ Stream Name/ USGS Map No.	Year	Date	Chinook	Sockeye	Coho	Chum	Pink	Comments	Data Source
		1989	5/27-7/09	1,825					Chinook sport harvest	ADF&G, SF, Engle
		1990		922		14,310			Both 90 & 91 are	ADF&G, SF, Engle
		1991		892		38,256			weir counts, less est. harvest above weir	
		1991				38,249			Weir count	ADF&G, SF, Palmer
		1992		1,441					index count, aerial survey	ADF&G, SF, Palmer
		1992	7/24-9/14	35	4,827	21,182	8,342	27,066	Weir count	ADF&G, SF, Palmer
		1993	7/23-9/13	23	7,981	34,822	26,551	69,863	Weir count	ADF&G, SF, Palmer
		1994		1,221		28,948				ADF&G, SF, Palmer
		1995		1,714					index count, aerial survey	ADF&G, SF, Palmer
		1995		2,884	7,129	12,266	14,296	1,038	weir count	ADF&G, SF, Palmer
		1996	8/1-9/22	24	30	12,932	1,460	277	weir count, coho 13384 inc., sport harv.	ADF&G, SF, Palmer, 96
		1996		1,079					Aerial survey, weir mved upstream	ADF&G, SF, Palmer,
		1997	8/4-9/28	9	97	9,864	3,572	0		ADF&G, SF, Palmer,
	247-41-10100-2150 -0010									
	Horseshoe Lake	Hist							Max. count 45,000 pinks	
	Anchorage C-8								(1964); 2 Chinook(1958)	
	247-41-10100-2231 -0010									
	Nancy Lake	Hist							Max. count 7,000 sock.	
	Anchorage C-8								(1954)	
		1972	8/15		5,000					
		1972	9/07		530					
		1972	9/11		1,979					
		1972			1,731				Peak survey count	
		1973			283					
		1974			140				Peak survey count	
		1975			84				Peak survey count	
		1975	8/21		31					
		1975	8/24		56					
		1975	8/26		74					
		1975	9/05		68					
		1975	9/23		42					
		1976	8/23		47					
		1976	8/27		230					
		1976	9/02		284					
		1976	9/07		267					
		1976	9/12		282					
		1977			4,301	3			Escapement count (weir)	
		1977	8/23		170					
		1977	8/30		841					
		1977	9/06		573					
		1978			2,050				Escapement count (weir)	
		1979			3,831				Escapement count (weir)	
		1979	9/07		800					
		1980			5,683				Escapement count (weir)	
		1983			4,800					CIAA
		1983			4,800					ADF&G, CF
		1984	8/26		1,282					ADF&G, CF
		1984	8/30		8,900					ADF&G, CF
	247-41-10100-2231									
	Lake Creek	Hist							Max. count 60 chinook	
	Anchorage C-8								(1967); 200 sock. (1953)	
		1970			1					
		1971			2					
		1972			14					
		1974			535					
		1975			281					
		1976			3,375					
	Nancy Creek	Hist							Max. count 142 sockeye	
		1975	8/26		8				(1951)	
		1975	8/29		11					
		1975	9/05		9					
8	247-50-10330									
	Fish Creek	Hist							Max. count 306,982 sockeye (1940);	
	Anchorage B-8								19,117 coho(1938); 699 pink (1950)	
	Anchorage C-8	1968	7/01-7/31		19,616	2,088			Esc. count (counting screen)	ADF&G, SF, Palmer
	(Big Lake)	1969	7/04-9/02		12,456	4,253			Escapement count (weir)	ADF&G, SF, Palmer
		1970	7/19-8/08		25,000	1,018			Escapement count (weir)	ADF&G, SF, Palmer
		1970			31,470	1,018		3,940	Escapement count (weir)	
		1970	9/30			176				
		1971	7/08-8/07		31,900	503			Escapement count (weir)	ADF&G, SF, Palmer
		1971	8/24		4,250					
		1971	9/30			141				
		1972	7/24-9/10		6,981	799		57	Escapement count (weir)	ADF&G, SF, Palmer
		1972	9/08		572					
		1973	7/18-9/06		2,705	210		6	Escapement count (weir)	
		1974	7/08-9/06		16,225	1,154			Escapement count (weir)	ADF&G, SF, Palmer
		1975	7/03-9/08		29,880	1,601			Escapement count (weir)	
		1975	8/21		34					
		1975	8/26		318	1				
		1975	8/29		487	1				
		1975	9/05		1,192	1				
		1975	9/23		968					
		1975	9/29		194		1			
		1976	7/05-9/10		14,032	765			Escapement count (weir)	
		1977	9/01		372					
		1977	7/07-8/15		5,183	970		189	Escapement count (weir)	
		1978	7/07-9/30	10	3,555	3,185	3	399	Escapement count (weir)	

Appendix A.1. Escapement surveys of adult salmon for systems with sockeye in the Northern District of Upper Cook Inlet.

#	Location Code/ Stream Name/ USGS Map No	Year	Date	Chinook	Sockeye	Coho	Chum	Pink	Comments	Data Source
		1979	7/09-8/29		68,739	2,511			Escapement count (weir)	ADF&G, SF, Palmer
		1980	7/04-9/01		62,828	8,924			Escapement count (weir)	ADF&G, SF, Palmer
		1981	7/09-9/03		51,475	1,781			Escapement count (weir)	ADF&G, FRED
		1981	7/09-9/07		50,479	2,330			Escapement count (weir)	ADF&G, SF, Palmer
		1982	7/12-9/08		28,164	5,201			Weir count (inc. 300 sockeye & 2200 coho dwn. str. of weir)	ADF&G, FRED
		1983	7/05-8/30		118,797	2,312			Weir count (inc. 1305 coho dwn. str.)	ADF&G, FRED
		1984	6/29-9/19		192,352	4,510			Weir count (inc. 1630 coho. & 2359 sockeye dwn. str. of weir, 49 coho precocious males	
		1985	7/08-8/29		68,577	5,089			Weir count (inc. 3590 coho dwn. str.)	
		1986	7/15-8/12		29,800	2,166			Weir count (inc. 1350 coho dwn. str.)	King and Tarbox, 1988
		1986	7/14-8/26		29,800	2,166			Esc. count (weir)	ADF&G, SF, Palmer
		1987	7/06-8/27		91,215	3,871			Weir count (inc. 3400 coho dwn. str.)	
		1988	7/08-9/10		71,603	2,162			Weir count	
		1989	7/07-9/09		67,224	3,479			Weir count	ADF&G, FRED
		1990	7/10-9/15	2	48,717	2,673			Weir count	ADF&G, FRED
		1991	7/09-8/05	12	59,269	27	10	31	Weir count	ADF&G, FRED, Peltz
		1991	9/12			637			Float trip, weir-Lewis Prkway, poor cond.	ADF&G, FRED, Peltz
		1991	7/09-9/12		50,500	1,297			Esc. count (weir)	ADF&G, SF, Palmer
		1992	7/10-9/15	5	72,108	1,705	6	163	Sockeye-weir count	ADF&G, FRED, Peltz
		1993	7/07-8/20	1	117,619	2,078	67	126	Sockeye-weir count	ADF&G, FRED, Peltz
		1994	7/08-8/14-94	4	95,107	350		48	Sockeye-weir count	ADF&G, SF
		1995	7/07-8/14		115,101	390		70	Coho-weir+ground survey below weir	ADF&G, SF ADF&G, FRED, Peltz
		1996	7/9-8/13	11	63,160	682			1292 jack reds included in count	ADF&G, SF, Palmer
		1997	7/7-9/30	9	55,035	2,519				
	247-50-10330-2020 Three Mile Creek (Trib. of Fish Creek) Anchorage B-8	Hist							Max. count 49 sock. (1954); 896 pink (1958)	
	247-50-10330-2050 Meadow Creek Anchorage C-8	Hist							Max. count 5,000 sock. (1959-1963); 175 coho (1968)	
		1970	9/21		43	19				
		1970	9/29			25				
		1971	9/20			9				
		1971	9/28			2				
		1972	8/22		200					
		1972	9/25			27				
		1979	8/18		1,879					
	247-50-10330-2050 -3030 Lucile Creek Anchorage C-8 Anchorage C-7									
	247-50-10330-3050 -0010 Blodgett Lakes Anchorage C-8	Hist							Max. count 15-20,000 sockeye	
		1972	8/22		53					
9	247-50-10300 Cottonwood Creek Anchorage B-7 Anchorage C-7	Hist							Max. sockeye count 8-10000 (1936); 1,161 coho (1960)	
		1956			3,358	896			Weir, USFWS	
		1970	9/22			5				
		1971	8/18		233					
		1971	9/17			29				
		1972	8/22		10	Present				
		1972	9/01		38					
		1972	9/08		1,199					
		1972	9/21			21				
		1973	9/24			18				
		1974	9/23			20				
		1974	9/23			6				
		1974	9/26			1				
		1974	9/27			9				
		1974	10/02			11				
		1974				21				
		1975	9/22			108				
		1975	9/24			128				
		1976				204				
		1976	9/20			101				
		1976	9/22			100				
		1977				261				
		1980				530				
		1981			25,180	2,136			Escapement count (weir)	
		1981				123				ADF&G, SF, Palmer
		1982			18,358	2,041				ADF&G, FRED
		1982				737				ADF&G, SF, Palmer
		1983				506				ADF&G, SF, Palmer
		1984				935				ADF&G, SF
		1985				331				ADF&G, SF
		1986				121				ADF&G, SF
		1987				360				ADF&G, SF
		1988				293				ADF&G, SF
		1989				117				ADF&G, SF
		1990				167				ADF&G, SF, (Anch.)
		1991				158				ADF&G, SF, Bartlett
		1992				6				

Appendix A.1. Escapement surveys of adult salmon for systems with sockeye in the Northern District of Upper Cook Inlet.

#	Location Code/ Stream Name/ USGS Map No.	Year	Date	Chinook	Sockeye	Coho	Chum	Pink	Comments	Data Source
		1993				265				ADF&G, SF, Palmer
		1994				232				ADF&G, SF, Palmer
		1995				242				ADF&G, SF, Palmer
		1996				159			ground survey	ADF&G, SF, Palmer
		1997	7/7-9/27		8,224	936			Weir Count	ADF&G, SF, Palmer
	247-50-10300-0010									
	Wasilla Lake	Hist							Max. count 3,581 sockeye	
	Anchorage C-7								(1960); 1,161 coho (1960)	
		1972	8/22		660					
		1981			25,180				Cottonwood-Wasilla Lakes, weir ct.	
		1990	8/29		182				Wasilla Lk. boat survey	CIAA, Mears
	247-50-10300-0020									
	Cottonwood Lake	Hist							Max. count 500 fish	
	Anchorage C-7	1972	8/22		225				(1951)	
		1981			25,180				Cottonwood-Wasilla Lakes weir counts	
	247-50-10300-0040									
	Neklason Lake	Hist							Max. count 256 sockeye	
	Anchorage C-7	1972	8/22		110				(1956)	
10	247-50-10270									
	Wasilla Creek	1970	9/25			101				
	Anchorage C-7	1970	9/28			94				
	Anchorage C-6	1971				104				
		1972	9/21			19				
		1973				28				
		1974				30				
		1975				158				
		1976				162				
		1978				158				
		1979				157				
		1981				238				ADF&G, SF, Palmer
		1982				171				ADF&G, SF, Palmer
		1983				4				ADF&G, SF, Palmer
		1984				876				ADF&G, SF, Palmer
		1984				628				ADF&G, SF
		1985				248				ADF&G, SF
		1987				251				ADF&G, SF
		1990				36				ADF&G, SF, Bartlett
		1991				118				ADF&G, SF, Bartlett
		1992				3				ADF&G, SF, Palmer
		1993				n/a			No survey conducted	ADF&G, SF, Palmer
		1994				282				ADF&G,SF, Palmer
		1995				46				ADF&G,SF, Palmer
		1996				81			ground survey	ADF&G,SF, Palmer
		1997	7/7-9/19		5	437	1		Weir count	ADF&G,SF, Palmer
	247-50-10270-3020-4008									
	Spring Flats Creek									
	(Flows into	1981				61				ADF&G, SF, Palmer
	Spring Creek	1982				105				ADF&G, SF, Palmer
	appx. 3/4 mi.	1983				28				ADF&G, SF, Palmer
	S Matanuska Lk.)	1984				90				ADF&G, SF, Palmer
		1985				81				
		1986				147				
		1987				42				
		1988				30				
		1989				39				
		1990				12				
		1991				5				
		1992				0				ADF&G, SF, Palmer
		1993				69				ADF&G, SF, Palmer
		1994				60				ADF&G,SF, Palmer
		1995				38				ADF&G,SF, Palmer
		1996				29			ground survey	ADF&G,SF, Palmer
		1997	9/19-10/8			296				
11	247-50-10220									
	Matanuska River	Hist							Chinook present	
	Anchorage C-6					2,500	150	2,500	Kings River confluence	CIAA
	Anchorage C-5	1981								
	247-50-10220-2105									
	Granite Creek	Hist							Max. count 116 sockeye	
	Anchorage C-5								(1959); 61 chum (1957)	
	Anchorage D-5									
	247-50-10220-3012									
	Yellow Creek									
	Anchorage C-5	1984				0			Not sure of loc. code.	ADF&G, SF
		1985				65			Cr. flows into Mat. R.	
		1986				20			7-10 mi. u. Sutton.	
		1987				58				
		1988				110				
		1989				226				
		1991				146				
		1991				136				ADF&G, SF, Bartlett

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#	Location Code/ Stream Name/ USGS Map No.	Year	Date	Chinook	Sockeye	Coho	Chum	Pink	Comments	Data Source
		1992				57				ADF&G, SF, Palmer
		1993				490				ADF&G, SF, Palmer
		1994				172				ADF&G,SF, Palmer
		1995				220				ADF&G,SF, Palmer
		1996				101			ground survey	ADF&G,SF, Palmer
	247-50-10220-2171 Chukaloon River Anchorage D-4									
	247-50-10220-2085 Moose Creek Anchorage D-6 Anchorage C-6 (Confluence with Matanuska River Appx. 5 mi. NNE of Palmer)	1970	7/24		120					
		1971	7/23		22					
		1971	7/29		40					
		1972	7/28		15					
		1972	7/31		6					
		1973	8/01		36					
		1974	8/01		32					
		1975	8/01		55					
		1976	7/28		101					
		1979		253						ADF&G, SF, Engle
		1981		238						ADF&G, SF, Engle
		1982		406						ADF&G, SF, Engle
		1983		452						ADF&G, SF, Engle
		1984		541						ADF&G, SF, Engle
		1985		475						ADF&G, SF, Engle
		1986		403						ADF&G, SF, Engle
		1987		957						ADF&G, SF, Engle
		1988		1,072						ADF&G, SF, Engle
		1989		999						ADF&G, SF, Engle
		1990		545						ADF&G, SF, Engle
		1991		704						ADF&G, SF, Engle
	247-50-10220-2095 Eska Creek (Confluence with Matanuska R. near Sutton)	1988				48				ADF&G, SF, Engle
		1989				41				ADF&G, SF, Engle
		1990				96				ADF&G, SF, Engle
		1991				28				ADF&G, SF, Engle
	Mud Lake	Hist							Max. count 90 sockeye (1957)	
12	247-50-10200 Knik River Anchorage B-6 Anchorage B-5	Hist				6,000			Max. abundance estimate from several years observations	ADF&G, SF
		Hist				4,000		50	Observ. from Aug-Sep., 1979-1981	CIAA
	247-50-10200-2081 -0010 Jim Lake Anchorage C-6	Hist				Signif.				ADF&G, SF
		1981				Present				CIAA
		1981				35			Test fish catch	
	247-50-10200-? Upper Jim Creek (Located ESE Jim Lk., flows into Leaf Lk., not shown on map).	1990				589			No no. in ASC	ADF&G, SF, Engle
		1991				418				ADF&G, SF, Engle
		1992				59				ADF&G, SF, Palmer
		1993	7/16-9/12		3,472	535		3	Esc. count (weir)	ADF&G, SF, Palmer
		1994	7/23-9/12		5,197	6,451			Esc. count (weir)	ADF&G, SF, Palmer
		1995				1,288				ADF&G, SF, Palmer
		1996				439			ground survey	ADF&G, SF, Palmer
	247-50-10200-4010 McRoberts Creek Anchorage C-6	1985				662			Unsure of last four digits of loc. code. This stream flows from the NW toward Jim Lake.	ADF&G, SF
		1986				439				
		1987				667				
		1988				110				
		1988				1,911				ADF&G, SF, Bartlett
		1989				116				
		1989				597				ADF&G, SF, Bartlett
		1990				126				ADF&G, SF
		1990				599				ADF&G, SF, Bartlett
		1991				484				ADF&G, SF, Bartlett
		1992				11				ADF&G, SF, Palmer
		1993				503				ADF&G, SF, Palmer
		1994				506				ADF&G,SF, Palmer
		1995				702				ADF&G,SF, Palmer
		1996				72			ground survey	ADF&G,SF, Palmer
	247-50-10200-2071 Bodenburg Slough									
		1968	AUG.		350					ADF&G
		1969	Sept.		125					ADF&G
		1970	8/25		83					ADF&G
		1971	9/5		110					ADF&G
		1972	8/31		461				Peak survey count	ADF&G
		1973	8/21		57					ADF&G
		1973	8/24		162					ADF&G
		1973	8/27		208					ADF&G
		1973	8/30		237					ADF&G
		1973	9/04		252					ADF&G
		1973	9/16		199					ADF&G
		1974	8/23		88					ADF&G
		1974	8/29		135					ADF&G

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#	Location Code/ Stream Name/ USGS Map No.	Year	Date	Chinook	Sockeye	Coho	Chum	Pink	Comments	Data Source
		1974	9/04		141					ADF&G
		1974	9/6		169					ADF&G
		1974	9/12		171					ADF&G
		1974	9/16		147					ADF&G
		1975	8/21		138					ADF&G
		1975	8/26		138					ADF&G
		1975	8/29		161					ADF&G
		1975	9/05		160					ADF&G
		1975	9/23		109		3			ADF&G
		1976	8/23		43		1			ADF&G
		1976	8/27		84		1			ADF&G
		1976	9/02		108		1			ADF&G
		1976	9/07		107					ADF&G
		1976	9/12		111					ADF&G
		1977	8/22		146					ADF&G
		1977	8/30		174					ADF&G
		1977	9/06		164					ADF&G
		1977	9/15		140					ADF&G
		1978	8/22		270					ADF&G
		1978	8/29		541					ADF&G
		1978	9/11		81				Peak survey count	ADF&G
		1979	8/29		321					ADF&G
		1980	8/25		483					ADF&G
		1981	8/19		260					ADF&G
		1982	9/17		722					ADF&G
		1983	8/31		359					ADF&G
		1984								ADF&G
		1985	9/5		232					ADF&G
		1986	9/4		119	120				ADF&G
		1987	9/3		77	1				ADF&G
		1988	9/8		86	7				ADF&G
		1989	8/31		190	6				ADF&G
		1990	9/7		195	3				ADF&G
		1991	8/27			1				ADF&G
		1991	9/6		160					ADF&G
		1992	8/29		54					ADF&G
		1992	9/2		66	4				ADF&G
		1993	8/24		212	11				ADF&G
		1994	8/25		220					ADF&G
		1994	9/6			93				ADF&G
		1995	8/28		156	219				ADF&G
		1996	9/4		111					ADF&G
		1997	8/28		142	4				ADF&G
13	247-50-10175									
	Eklutna River	Hist				Present	Present	Present		ADF&G, SF
	Anchorage B-7									
		1985				266			Eklutna tailrace	ADF&G, SF, Palmer
		1986				463			Eklutna tailrace	ADF&G, SF, Palmer
		1987				1,587			Eklutna tailrace	ADF&G, SF, Palmer
		1988				1,838			Eklutna tailrace	ADF&G, SF, Palmer
		1989				253			Eklutna tailrace	ADF&G, SF, Palmer
		1990				668			Eklutna tailrace	ADF&G, SF, Palmer
		1991				286			Eklutna tailrace	ADF&G, SF, Palmer
		1992				39			Eklutna tailrace	ADF&G, SF, Palmer
		1993				496			Eklutna tailrace	ADF&G, SF, Palmer
		1994				714			Eklutna tailrace	ADF&G, SF, Palmer
		1995				107			Eklutna tailrace	ADF&G, SF, Palmer
		1996				224			Eklutna tailrace, return to hatchery	ADF&G, SF, Palmer
14	247-50-10110									
	Eagle River	Hist							Chinook present (1966	
	Anchorage B-8								>1969); Max. count	
	Anchorage B-7	1970		81					3000pinks (1963)	
		1973		61						
		1976		81						
		1977		313						
		1977		31					South fork	
		1978		182						
		Hist			Present	Present	Present	Present		ADF&G, SF
		1991	9/27							ADF&G, SF-Roth
15	247-50-10090									
	Six Mile Creek	1980			300		100		1980 observations	CIAA
	Anchorage B-8									
	247-50-10090-0010									
	Six Mile Lake	PC			200	200				ADF&G, SF
	Anchorage B-8	1988			2,190			958	Weir	
		1989			1,321			377	Weir	
		1990			1,415			1,678	Weir	
		1991			1,815			597	Weir	
		1992			711	2		199	Weir	
		1993			5,021	101	5	1,013	Weir	
		1994			1,407			213	Weir	
		1995			4,162	14	18	2,116	Weir	
		1996			2,549	a		881	a. A total of 51 coho & chum passed the weir were not tallied by species.	
		1997			2,085	10	0	157	Weir	
16	247-50-10060									
	Ship Creek	Hist							Max. count chinook 1,764	
	Anchorage A-8								(1964); 600 chum (1953);	

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#	Location Code/ Stream Name/ USGS Map No.	Year	Date	Chinook	Sockeye	Coho	Chum	Pink	Comments	Data Source
									pinks 1,258 (1952)	
		1960		58						
		1961		80						
		1962		58						
		1963		119						
		1964		94						
		1965		207						
		1966		50						
		1967		200						
		1968		500						
		1969		710		142	200	211		
		1970		1,746		2,231	39	448		
		1971		221		1,266	41			
		1972		121		85	165	147		
		1973		165		61	93	14		
		1974		146		250				
		1975		120		85				
		1976		806						
		1977		1,011	3	436	472	584		
		1978		867	3	381	155	613		
		1979		124						
		1980		256	1	90	116	99		
		1981		1,000						
		1982		665						
		1983							No count conducted	
		1984							No count conducted	
		1985							No count conducted	
		1986		1,433						
		1987		1,030						
		1988							No count conducted	
		1989		238						
		1990		761		71	5			
		1991		318		412	6			
		1992		789	2	55				
		1993		706	2	338		22		
		1994		424	13	651	89	631		
		1995		652	5	858	92	890		
		1996		503	13	1,013	26	244		
		1997		244						
17	247-60-10340	1958		6				1,000		
	Campbell Creek	1959							No count conducted	
	Seward D-6	1960							No count conducted	
	Seward C-6	1961		70						
		1962		40						
		1963		187		22				
		1964		116			20	112		
		1965		119						
		1966		15						
		1967		300						
		1968		125						
		1969							No count conducted	
		1970		63						
		1971		102						
		1972		37						
		1973		201						
		1974		79						
		1975								
		1976		210						
		1977		349						
		1978							No count conducted	
		1979							No count conducted	
		1980							No count conducted	
		1981							No count conducted	
		1982		68						
		1983							No count conducted	
		1984		423						
		1985							No count conducted	
		1986		733	877	99				
		1987		571	515	132				
		1988							No count conducted	
		1989		218	51					
		1990		458	317	126	2			
		1991		590	811	292				
		1992		931	575	157				
		1993		937	493	2,312	3	13	Weir	
		1994		1,076	756	3,051	15	6	Weir	
		1995		731	466	1,423				
		1996		369	319	1,612				
		1997		1,119	294					
18	247-60-10230									
	Bird Creek	1984		21				420		
	Seward D-7	1985							No count conducted	
		1986				3	100	500		
		1987							No count conducted	
		1988							No count conducted	
		1989		70			181	615		
		1990		109		9				
		1991		156		50				
		1992		142		101				
		1993		72		593	60			
		1994		289		277	30	101		
		1995		145	2	139	9	1,491		

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#	Location Code/ Stream Name/ USGS Map No.	Year	Date	Chinook	Sockeye	Coho	Chum	Pink	Comments	Data Source
		1996		212		169	214	987		
		1997								
19	247-60-10250-2007									ADF&G, SF
	California Creek	Hist		Present		Present	Present	5,000	Max abundance estimate from several years	
	Glacier Creek									
	Seward D-6	1976	8/21					155	observations	
		1976	8/25	2	1	4	6	516		
		1978	8/10	4		5		59		
		1978	9/01		1			919		
20	247-60-10230									
	Twenty Mile River	1992	8/18	0	0	18	7	72	lower 5 mi.	USFS
	Seward D-6	1992	9/25	0	0	0	1	1	up to forks	USFS
	Seward D-5	1992	10/8	0	0	1,296	1	5	index sites only	USFS
		1993	7/28	0	0	0	0	0	index sites only	USFS
		1993	8/26	0	0	108	4	70	index sites only	USFS
		1993	9/5	0	0	10	5	5	index sites only	USFS
		1993	9/15	0	0	5	0	0	index sites only	USFS
		1993	9/21	0	0	75	2	3	index sites only	USFS
		1994	8/3	1	3	100	100	39	index sites only	USFS
		1994	8/4	0	0	3	2	17	index sites only	USFS
		1994	8/18	1	6	0	14	52	index sites only	USFS
		1994	8/20	0	155	125	96	105	index sites only	USFS
		1994	8/25	0	10	50	104	93	index sites only	USFS
		1994	9/1	0	0	66	0	0	index sites only	USFS
		1994	9/28	0	10	400	15	1	index sites only	USFS
		1994	10/14	0	5	800	10	0	index sites only	USFS
		1994	10/19	0	0	10	0	0	index sites only	USFS
		1995	6/21	0	0	0	0	0	index sites only	USFS
		1995	7/6	0	0	0	0	0	index sites only	USFS
		1995	7/14	0	0	0	335	0	index sites only	USFS
		1995	7/31	0	110	60	100	650	index sites only	USFS
		1995	8/3	0	0	0	0	300	index sites only	USFS
		1995	8/15	0	0	177	0	0	index sites only	USFS
		1995	9/22	0	0	0	0	0	index sites only	USFS
		1995	10/4	0	0	160	0	0	index sites only	USFS
		1995	10/6	0	0	65	0	0	index sites only	USFS
		1996	8/5	0	0	110	30	103	index sites only	USFS
	247-60-10230-2028									
	Glacier River									
	Seward D-6									
	Seward D-5									
	247-60-10230-2028-0010									
	Carmen Lake	1976	8/20		2					USFWS
	Seward D-5	1976	8/21					9		USFWS
		1978			603		18			USFWS
		1981			29	20		30		USFWS
21	247-60-10220									
	Portage Creek	Hist			500		500	5,000		ADF&G, SF
	Seward D-6									
	Seward D-5									
	247-60-10220-2021	1993	7/29		210					USFS
	Upper Railroad Slough	1993	8/26		0	12				USFS
		1993	9/14		883	332	103			USFS
		1994	7/28							USFS
		1994	8/16		759		111	50		USFS
		1994	10/18			200				USFS
		1995	8/31		500		350	12		USFS
		1995	10/5			10				USFS
		1995	11/2			335				USFS
		1996	8/28		966		97	200		USFS
		1996	9/29							USFS
		1996	10/2		50					USFS
		1997	8/20		638		138	86		USFS
		1997	10/5		4	1				USFS
	Lower Railroad Slough	1993	7/15		75					USFS
		1993	8/3		61					USFS
		1994	7/15		65	12	25	70		USFS
		1994	9/6		65	355	1	3		USFS
		1994	9/7		30		15			USFS
		1994	9/15			1				USFS
		1995	9/13		50	450		50		USFS
		1996	9/19		10	20				USFS
		1997	10/6		6	100	1	1		USFS
	247-60-10220-0010-3009	1993	8/26		108					USFS
	Bear Valley	1994	8/31		178		2			USFS
		1994	9/30		23					USFS
		1995	9/6		151		2			USFS
		1996	8/22		119		6			USFS
		1997	9/3		260		50			USFS
		1997	10/3			1	5			USFS
	247-60-10220-2027 -0010									
	Portage Lake									
	Seward D-5									

Appendix A.1. Escapement surveys of adult salmon for systems with sockeye in the Northern District of Upper Cook Inlet

#	Location Code/ Stream Name/ USGS Map No.	Year	Date	Chinook	Sockeye	Coho	Chum	Pink	Comments	Data Source
	247-60-10220-3010 Gravel Pit Area Seward D-6	Hist							Max. count 350 chinook (1954); 650 sock. (1952); 1 pink (1954); 1 chum (1953)	
		Hist		500		200		1,000		ADF&G, SF
		Hist							Max. count 291 sockeye, 13 chum (1923)	
	247-60-10220-2027-3014 Williwaw Creek	1974	9/11		48					USFS
		1974	9/25		17					USFS
		1975	8/22		42					USFS
		1975	8/30		47					USFS
		1975	9/06		51					USFS
		1975	9/15		47					USFS
		1976	8/11	0	0	0	0	0		USFS
		1976	8/21		264					USFS
		1976	8/25		76					USFS
		1976	9/03		81					USFS
		1977	8/24		244					USFS
		1977	9/01		441		42			USFS
		1978	8/10		44					USFS
		1978	8/30		195					USFS
		1978	9/19		142					USFS
		1990	8/16		136		17		Partial index surveys	USFS
		1990	8/23		268	2	81	1	Partial index surveys	USFS
		1991	8/14		77		3		Partial index surveys	USFS
		1991	8/19		223		52		Partial index surveys	USFS
		1991	8/22		0		0		Partial index surveys	USFS
		1991	8/27		312		209		Partial index surveys	USFS
		1991	9/4		340		295		Partial index surveys	USFS
		1992	7/22		0				Partial index surveys	USFS
		1992	8/5		0				Partial index surveys	USFS
		1992	8/20		126		12		Partial index surveys	USFS
		1992	8/28		185		75		Partial index surveys	USFS
		1992	9/17		138		126		Partial index surveys	USFS
		1993	7/30		0				Partial index surveys	USFS
		1993	8/5		21				Partial index surveys	USFS
		1993	8/13		189				Partial index surveys	USFS
		1993	8/20		2				Partial index surveys	USFS
		1993	8/24		223		106		Partial index surveys	USFS
		1993	9/3		306		216	2	Partial index surveys	USFS
		1993	9/10		229		152	1	Partial index surveys	USFS
		1993	9/21						Partial index surveys	USFS
		1993	10/6		0		1		Partial index surveys	USFS
		1993	10/21		0	11	130		Partial index surveys	USFS
		1994	7/22						Partial index surveys	USFS
		1994	7/28						Partial index surveys	USFS
		1994	8/2						Partial index surveys	USFS
		1994	8/3						Partial index surveys	USFS
		1994	8/5				2		Partial index surveys	USFS
		1994	8/8		35		11		Partial index surveys	USFS
		1994	8/12		120		29		Partial index surveys	USFS
		1994	8/22		378		326		Partial index surveys	USFS
		1994	8/23		197		189		Partial index surveys	USFS
		1994	8/24		5		30		Partial index surveys	USFS
		1994	9/8	1	468		907		Partial index surveys	USFS
		1994	10/4		55	11	50		Partial index surveys	USFS
		1994	10/21			15			Partial index surveys	USFS
		1994	10/27			32			Partial index surveys	USFS
		1994	11/14			50			Partial index surveys	USFS
		1995	7/27						Partial index surveys	USFS
		1995	8/17		205		118		Partial index surveys	USFS
		1995	8/30		522		350		Partial index surveys	USFS
		1995	9/1		240		260		Partial index surveys	USFS
		1995	9/12		136		193		Partial index surveys	USFS
		1995	9/15		147		386		Partial index surveys	USFS
		1995	9/21						Partial index surveys	USFS
		1995	10/23			35			Partial index surveys	USFS
		1995	12/14			1			Partial index surveys	USFS
		1996	8/13		152		105		Partial index surveys	USFS
		1996	8/19		175		225	15	Partial index surveys	USFS
		1996	8/26		195		111	1	Partial index surveys	USFS
		1996	9/13		2				Partial index surveys	USFS
		1996	10/8			2			Partial index surveys	USFS
		1997	8/7		81				Partial index surveys	USFS
		1997	8/11		180		85		Partial index surveys	USFS
		1997	8/18		71		19		Partial index surveys	USFS
22	247-60-10210 Explorer Creek	1992	7/21		46					USFS
		1992	7/22							USFS
		1992	7/29		1					USFS
		1992	8/5							USFS
		1992	8/21		155		37			USFS
		1992	9/9							USFS
		1992	9/30							USFS
		1992	10/7			8				USFS
		1992	10/23		1					USFS
		1993	7/21		3					USFS
		1993	7/28		40					USFS
		1993	7/30		180					USFS
		1993	8/1		4					USFS
		1993	8/3							USFS
		1993	8/9		100					USFS
		1993	8/20							USFS
		1993	8/25							USFS
		1993	8/26		150		4			USFS

Appendix A.1. Escapement surveys of adult salmon for systems with sockeye in the Northern District of Upper Cook Inlet.

#	Location Code/ Stream Name/ USGS Map No.	Year	Date	Chinook	Sockeye	Coho	Chum	Pink	Comments	Data Source
		1993	9/9		19	11				USFS
		1993	9/18			100				USFS
		1993	9/21			100				USFS
		1993	10/1			20				USFS
		1993	10/5			54				USFS
		1993	10/21			45				USFS
		1994	7/22							USFS
		1994	7/28		12					USFS
		1994	7/31		20					USFS
		1994	8/2							USFS
		1994	8/3		11					USFS
		1994	8/5							USFS
		1994	8/8		7					USFS
		1994	8/22							USFS
		1994	9/2		2	5				USFS
		1994	9/15			10				USFS
		1994	10/4			75				USFS
		1994	10/17			804				USFS
		1995	7/27		5					USFS
		1995	8/7		300					USFS
		1995	8/8		100					USFS
		1995	8/9		200					USFS
		1995	9/5		100					USFS
		1995	9/14		289		13			USFS
		1996	7/25		35					USFS
		1996	8/19		14					USFS
		1996	9/5			100				USFS
		1996	9/30			16				USFS
		1996	10/8			35				USFS
		1996	10/17			10				USFS
		1997	8/5		25					USFS
		1997	8/7		75					USFS
		1997	10/1							USFS
		1997	10/2		20					USFS
		1997	10/15			30				USFS
23	247-60-10200 Placier River Seward D-6									
	247-60-10200-2025 Skookum Creek Seward D-6	Hist				Present				ADF&G, SF
24	247-60-10170 Six Mile Creek	Hist							Max. count 896 pinks (1958)	
	Seward D-7	1976	8/21					800		
	Seward C-7	1978	8/23					1,200		
		1989	8/03	11					All carcasses	USFWS
		1989	9/26	1		13			Chinook car	USFWS
	247-60-10170-2036 Silvertip Creek Seward C-7	1989	9/20			2			Peak count	USFS
	247-60-10170-2041 Upper Granite Creek Seward C-7 Seward D-6	1984				103			Ground survey	USFWS
		1985				32			Ground survey	USFWS
		1986				25			Ground survey	USFWS
		1988	10/14			67			Ground survey	USFWS
		1989	9/27			68				USFWS
		1990	9/26		5	46			Peak count, 2.5 mi. sur.	USFWS
	247-60-10170-2030 Canyon Creek Seward D-7 Seward C-7	1985		9						
		1986		30						
		1988	8/02	10						
		1989	10/03		2	74			Peak count	USFS
		1990	7/17	0	0	0	0	0		USFS
		1990	9/26	0	0	0	0	0		USFS
	247-60-10170-2044 -3008 Center Creek Seward C-7									
25	247-60-10120 Big Indian Creek Seward D-8									
26	247-60-10110 Chuitaloon River	Hist							Max. count 20,000 sockeye (1917); 7,500 pink (1960)	
	Kenai D-1	1976	8/19		1,543					
	Seward C-8	1981	5/28	0	0	0	0	0		
		Hist				Present	Present	Present		ADF&G, SF
		1983	7/18	3	1,000					CIAA
		1984	7/18	339	473				Index sites	USFWS
		1985	7/16	510	485				Index sites	USFWS
		1985	7/22	618	316				Index sites	USFWS
		1985	8/8	115	355				Index sites	USFWS

Appendix A.1. Escapement surveys of adult salmon for systems with sockeye in the Northern District of Upper Cook Inlet.

#	Location Code/ Stream Name/ USGS Map No.	Year	Date	Chinook	Sockeye	Coho	Chum	Pink	Comments	Data Source
	247-60-10110-2120	1983	7/18	2	50					CIAA
	Thurman Creek									
	Kenai C-1									
	Seward C-8									
	247-60-10110-3019	1983	7/18	4	2,000					CIAA
	Mystery Creek	1984	7/2	74	784				Index Sites	USFWS
	Kenai C-1	1984	7/17	155	516				Index Sites	USFWS
		1985	7/9	154	985				Index Sites	USFWS
		1985	7/17	84	628				Index Sites	USFWS
		1985	7/24	73	150				Index Sites	USFWS
		1985	7/31	69	133				Index Sites	USFWS
		1985	8/8	34	193				Index Sites	USFWS
27	247-90-10020	Hist							Max. count 2043 coho	
	Swanson River								(1969)	
	Kenai C-2	1954	7/9-8/3		0				Wier count	USFWS, base line survey
	Kenai C-3	1988	5/21-9/26	5	1,542	23,514	0	72	Wier count	USFWS, base line survey
	Kenai D-3	1989	7/12-8/27	0	0	20,841	0	0	Wier count (wier pulled due to flood conditions)	USFWS
28	247-90-10030	Hist							Max. count 23,000 sock.	
	Bishop Creek								(1958)	
	Kenai D-3	1954			9,267				Weir Count, USFWS	
	Kenai C-3	1974	9/19		24					
		1976	8/20		154					
		1977	7/22		7,000					
		1981	Aug.		2,000					CIAA
		1983	7/06						Sockeye in significant st mouth	
		1983	7/12		200				Counts from Daniels Cr	CIAA
		1983	7/19		4,500					CIAA
		1984	8/17		5,500				N. Road to Daniels Cr.	CIAA
		1984	9/07		1,000					CIAA
		1985	8/09		200					CIAA
		1986	7/25		2,063				Helicop..includes Bishop & Daniels Cr.	CIAA
		1987	7/30		Present					CIAA
	247-90-10030									
	-0010	1981	9/03		170				Appx. 33% carcasses	CIAA
	Bishop Lake	1984	8/17		5,000				Aerial,shoal area of lk.	CIAA
	(Not named on map)	1984	9/07		673				Helicop., includes 411 carcasses	CIAA
	Kenai C-3	1985	8/09		5,000				Aerial, est. only	CIAA
		1985	9/06		1,031				Helicop.,shoal area only, inc. 5% carcasses	CIAA
		1986	8/28		51				Helicop., includes 3 carcasses, vis. poor due to algae bloom	CIAA
	247-90-10030-0010	1981	9/03		2,000					CIAA
	Daniels Lake &	1984	8/17		200				Aerial,shoal area of lk.	CIAA
	Creek	1984	9/07		2,000				Helicop., Cr. confluence, all carcasses	CIAA
	Kenai C-4	1984	9/07		7,800				Helicop., lk. survey, inc. 600 carcasses	CIAA
		1985	9/06		6,988				Helicop., lk. survey, inc. 410 carcasses	
		1986	8/28		4,536				Helicop., includes 4 car	
	247-90-10030-0030	1981	9/03	0	0	0	0	0		CIAA
	Persons Lake & Creek									
	Kenai C-4									
	247-90-10030-2029 -(0010)									
	Timberlost Lake & Creek	1981	9/03		2					CIAA
	Kenai C-4									

All entries are aerial or ground stream survey data unless otherwise designated.

Appendix A.2. Documented sockeye producing streams from the Anadromus Stream Catalog in the Northern District of Upper Cook Inlet.

Stream Number	Anadromous Waters Catalog Number	Stream Name	Documented Migration	Spawning	Rearing	USGS QUAD
1	247-10-10080	McArthur River	M	S	R	Kenai D-5
	247-10-10080-2010	Chakachatna River	M		R	Kenai D-5
	247-10-10080-2010-0010	Chakachamna Lake	M	S	R	Tyonek A-7
	247-10-10080-2010-0020	Kenibuna Lake	M		R	Tyonek A-8
	247-10-10080-2010-3040	Straight Creek	M		R	Tyonek A-5
	247-10-10080-2010-3040-4010		M	S	R	Tyonek A-5
	247-10-10080-2010-3058	Nagishlamina R.	M	S		Tyonek A-7
	247-10-10080-2010-3068	Igitna River	M	S		Tyonek A-8
	247-10-10080-2020	Noakta Slough	M	S	R	Kenai D-5
	247-10-10080-2020-3029		M	S		Tyonek A-5
	247-10-10080-2020-3029-4020		M	S	R	Tyonek A-6
	247-10-10080-2020-3033		M	S		Tyonek A-5
	247-10-10080-2020-3033-4015		M	S		Tyonek A-5
	247-10-10080-2020-3033-4018		M	S		Tyonek A-5
	247-10-10080-2020-3033-4022		M	S		Tyonek A-5
	247-10-10080-2020-3033-4026		M	S		Tyonek A-5
	247-10-10080-2020-3035		M	S		Tyonek A-5
	247-10-10080-2038		M	S		Tyonek A-6
	247-10-10080-2042		M	S		Tyonek A-6
	247-10-10080-2042-3010		M	S		Tyonek A-6
	247-10-10080-2051		M	S		Tyonek A-6
	247-10-10080-2051-3029		M	S		Tyonek A-6
	247-10-10080-2051-3029-0010		M	S		Tyonek A-6
	247-10-10080-2051-3029-4036		M	S		Tyonek A-6
2	247-10-10070	Middle River	M			Kenai D-5
3	247-20-10010	Chuitna River	M			Tyonek A-4
	247-20-10010-2020	Lone Creek	M			Tyonek A-4
	247-20-10010-2020-3020		M	S		Tyonek A-4
	247-20-10010-2020-3020-4012		M			Tyonek A-4
4	247-20-10002	Threemile Creek	M			Tyonek A-3
	247-20-10002-0010		M	S		Tyonek A-3
	247-20-10002-2019		M	S		Tyonek A-4
5	247-30-10090	Beluga River	M		R	Tyonek A-3
	247-30-10090-0020	Lower Beluga Lake	M			Tyonek B-4
	247-30-10090-0030	Beluga Lake	M	S	R	Tyonek B-4
	247-30-10090-2010	Pretty Creek	M		R	Tyonek B-3
	247-30-10090-2010-3015-4015		M			Tyonek B-3
	247-30-10090-2120	Drill Creek	M	S		Tyonek B-4
	247-30-10090-2130		M	S	R	Tyonek B-4
	247-30-10090-2150	Coal Creek	M		R	Tyonek B-5
	247-30-10090-2150-3110		M	S		Tyonek B-5
	247-30-10090-2150-3110-0010	Coal Creek Lake	M	S	R	Tyonek B-5

Appendix A.2. Documented sockeye producing streams from the Anadromus Stream Catalog in the Northern District of Upper Cook Inlet.

Stream Number	Anadromous Waters Catalog Number	Stream Name	Documented Migration	Spawning	Rearing	USGS QUAD
	247-30-10090-2150-3121	W. Fork Coal Cr.	M	S		Tyonek B-5
	247-30-10090-2150-3121-4010		M	S	R	Tyonek B-5
	247-30-10090-2150-3121-4017		M	S	R	Tyonek B-5
	247-30-10090-2180		M	S	R	Tyonek B-5
6	247-41-10200	Susitna River	M		R	Tyonek B-2
	247-41-10200-2015	Alexander Creek	M	S		Tyonek B-2
	247-41-10200-2015-0010	Alexander Lake	M	S	R	Tyonek C-3
	247-41-10200-2015-3010	Deep Creek	M		R	Tyonek D-3
	247-41-10200-2015-3017	Granite Creek	M		R	Tyonek B-2
	247-41-10200-2015-3020	Fox Creek	M		R	Tyonek D-3
	247-41-10200-2015-3035	Lower Sucker Cr.	M	S	R	Tyonek C-2
	247-41-10200-2015-3035-4225-0010		M	S	R	Tyonek C-3
	247-41-10200-2015-3117	Bear Creek	M			Tyonek C-3
	247-41-10200-2020	Fish Creek	M			Tyonek B-2
	247-41-10200-2020-0010	Flat Horn Lake	M			Tyonek B-2
	247-41-10200-2020-0015	Red Shirt Lake	M	S		Tyonek C-1
	247-41-10200-2020-3008-0010	Beaver Lake	M			Tyonek B-2
	247-41-10200-2020-3031		M			Tyonek B-2
	247-41-10200-2020-3031-4016		M			Tyonek B-2
	247-41-10200-2020-3041		M			Tyonek B-2
	247-41-10200-2020-3041-0020		M		R	Tyonek C-1
	247-41-10200-2020-3110		M			Tyonek C-1
	247-41-10200-2020-3110-0010	Cow Lake	M	S		Tyonek C-1
	247-41-10200-2020-3130		M	S		Tyonek C-1
	247-41-10200-2020-3130-0020	Lynx Lake	M	S		Tyonek C-1
	247-41-10200-2053	Yentna River	M		R	Tyonek C-2
	247-41-10200-2053-3020	Kroto Slough	M		R	Tyonek C-2
	247-41-10200-2053-3020-0010	Whitsol Lake	M			Tyonek C-2
	247-41-10200-2053-3020-4015	Fish Creek	M			Tyonek C-2
	247-41-10200-2053-3170	Lake Creek	M	S	R	Tyonek D-3
	247-41-10200-2053-3170-0010	Chelatna Lake	M	S	R	Talkeetna B-3
	247-41-10200-2053-3170-4057	Camp Creek	M	S	R	Talkeetna B-3
	247-41-10200-2053-3170-4067	Sunflower Creek	M	S	R	Talkeetna B-3
	247-41-10200-2053-3170-4088	Coffee Creek	M	S	R	Talkeetna C-3
	247-41-10200-2053-3170-4093		M	S	R	Talkeetna C-4
	247-41-10200-2053-3170-4095	Cripple Creek	M	S	R	Talkeetna C-4
	247-41-10200-2053-3180	Fish Lake Creek	M	S	R	Tyonek D-3
	247-41-10200-2053-3180-0010	Fish Lakes	M	S	R	Tyonek D-3
	247-41-10200-2053-3180-0020	Fish Lakes	M	S	R	Tyonek D-3
	247-41-10200-2053-3180-0030	Fish Lakes	M	S	R	Tyonek D-3
	247-41-10200-2053-3180-0040	Fish Lakes	M	S	R	Tyonek D-3
	247-41-10200-2053-3180-0050	Fish Lakes	M	S	R	Tyonek D-3
	247-41-10200-2053-3205	Skwentna River	M			Tyonek D-4
	247-41-10200-2053-3205-4050	Shell Creek	M	S		Tyonek D-4
	247-41-10200-2053-3205-4050-0010	Shell Lake	M	S	R	Tyonek D-5

Appendix A.2. Documented sockeye producing streams from the Anadromus Stream Catalog in the Northern District of Upper Cook Inlet.

Stream Number	Anadromous Waters Catalog Number	Stream Name	Documented Migration	Spawning	Rearing	USGS QUAD
	247-41-10200-2053-3205-4050-5041		M			Tyonek D-5
	247-41-10200-2053-3205-4050-5057		M		R	Tyonek D-5
	247-41-10200-2053-3205-4053-5066	Talachulitna Cr.	M	S	R	Tyonek C-4
	247-41-10200-2053-3205-4053-5066-6012		M	S	R	Tyonek C-4
	247-41-10200-2053-3205-4053-5066-6012-	Movie Lake	M	S	R	Tyonek C-4
	247-41-10200-2053-3205-4053-5066-6029		M	S		Tyonek C-5
	247-41-10200-2053-3205-4053-5066-6034		M			Tyonek C-5
	247-41-10200-2053-3205-4053-5066-6045		M	S	R	Tyonek C-5
	247-41-10200-2053-3205-4099		M	S	R	Tyonek D-6
	247-41-10200-2053-3205-4099-0010	Red Salmon Lake	M	S	R	Tyonek D-6
	247-41-10200-2053-3205-4112	Happy River	M			Tyonek D-7
	247-41-10200-2053-3205-4112-5045	Squaw Creek	M	S		Talkeetna A-6
	247-41-10200-2053-3205-4112-5045-0010	Puntilla Lake	M	S	R	Talkeetna A-6
	247-41-10200-2053-3213	Hewitt Creek	M	S	R	Tyonek D-4
	247-41-10200-2053-3213-0010	Whiskey Lake	M	S	R	Tyonek D-4
	247-41-10200-2053-3213-4050		M	S	R	Tyonek D-4
	247-41-10200-2053-3213-4050-0010	Hewitt Lake	M		R	Tyonek D-4
	247-41-10200-2053-3220	Donkey Cr. Slough	M			Talkeetna A-3
	247-41-10200-2053-3220-4030-5030		M			Talkeetna A-3
	247-41-10200-2053-3220-4030-5030-0010	Donkey Cr. Lake	M	S	R	Talkeetna A-3
	247-41-10200-2053-3238	Clearwater Creek	M		R	Talkeetna A-4
	247-41-10200-2053-3249	W. Fork Yentna R.	M		R	Talkeetna B-4
	247-41-10200-2053-3249-4101		M	S		Talkeetna B-5
	247-41-10200-2053-3250	E. Fort Yentna R.	M	S		Talkeetna B-4
	247-41-10200-2081	Deshka R. (K Cr.)	M		R	Tyonek C-1
	247-41-10200-2081-0010	Kroto Lake	M		R	Talkeetna B-2
	247-41-10200-2081-3065	Chijuk Creek	M	S		Tyonek D-2
	247-41-10200-2081-3100	Moose Creek	M	S	R	Tyonek D-2
	247-41-10200-2081-3100-4155		M		R	Talkeetna A-1
	247-41-10200-2081-3100-4155-5016		M		R	Talkeetna A-1
	247-41-10200-2081-3224		M	S	R	Talkeetna B-2
	247-41-10200-2095		M	S	R	Tyonek D-1
	247-41-10200-2120	Willow Creek	M			Tyonek D-1
	247-41-10200-2320-3010	Birch Creek	M			Talkeetna A-1
	247-41-10200-2370	Talkeetna River	M			Talkeetna B-1
	247-41-10200-2370-3041-4010	Fish Creek	M		R	Talkeetna B-1
	247-41-10200-2370-3041-4010-0010	Mama Bear lake	M			Tal. Mts B-6
	247-41-10200-2370-3041-4010-0015	Papa Bear Lake	M	S	R	Tal. Mts B-6
	247-41-10200-2370-3080	Larson Creek	M			Tal. Mts B-6
	247-41-10200-2370-3080-0010	Larson Lake	M	S	R	Tal. Mts B-6
	247-41-10200-2370-3080-0015		M	S		Tal. Mts B-6
	247-41-10200-2370-3301	Prairie Creek	M			Tal. Mts C-5
	247-41-10200-2370-3301-0010	Murder Lake	M			Tal. Mts C-4
	247-41-10200-2370-3301-0020	Stephan Lake	M	S	R	Tal. Mts C-4
	247-41-10200-2370-3301-4034		M			Tal. Mts C-4
	247-41-10200-2381	Chulitna River	M			Talkeetna B-1

Appendix A.2. Documented sockeye producing streams from the Anadromus Stream Catalog in the Northern District of Upper Cook Inlet.

Stream Number	Anadromous Waters Catalog Number	Stream Name	Documented Migration	Spawning	Rearing	USGS QUAD
	247-41-10200-2381-3161	Tokositna River	M			Talkeetna C-1
	247-41-10200-2381-3161-4016-5010		M			Talkeetna C-1
	247-41-10200-2381-3161-4071		M	S		Talkeetna C-1
	247-41-10200-2381-3161-4071-0010	Swan Lake	M		R	Talkeetna C-1
	247-41-10200-2381-3161-4071-5020		M	S		Talkeetna C-1
	247-41-10200-2381-3161-4071-5031		M	S		Talkeetna C-1
	247-41-10200-2381-3161-4071-5031-0020		M	S	R	Talkeetna B-1
	247-41-10200-2381-3179	Spink Creek	M			Talkeetna C-1
	247-41-10200-2381-3179-0010	Spink Lake	M			Talkeetna D-1
	247-41-10200-2381-3180	Byers Creek	M			Talkeetna C-1
	247-41-10200-2420		M			Talkeetna B-1
	247-41-10200-2450	McKenzie Creek	M	S		Talkeetna C-1
	247-41-10200-2470		M			Tal. Mts C-6
7	247-41-10100	Little Susitna River	M	S	R	Tyonek B-1
	247-41-10100-2231	(Nancy) Lake Cr.	M	S		Anchorage C-8
	247-41-10100-2231-0010	Nancy Lake	M	S		Tyonek C-1
8	247-50-10330	Fish Creek	M			Anchorage B-8
	247-50-10330-0010	Big Lake	M	S		Anchorage C-8
	247-50-10330-0015	Mirror Lake	M			Anchorage C-8
	247-50-10330-2020	Threemile Creek	M			Anchorage B-8
	247-50-10330-2020-0010	Threemile Lake	M			Anchorage B-8
	247-50-10330-2050	Meadow Creek	M	S		Anchorage C-8
	247-50-10330-2050-3030	Lucile Creek	M			Anchorage C-8
	247-50-10330-2050-3050-0010	Blodgett Lake	M	S		Anchorage C-8
	247-50-10330-2050-3050-4040		M	S		Anchorage C-8
9	247-50-10300	Cottonwood Cr.	M			Anchorage B-7
	247-50-10300-0010	Wasilla Lake	M	S		Anchorage C-7
	247-50-10300-0020	Cottonwood Lake	M	S		Anchorage C-7
10	247-50-10270	Wasilla Creek	M			Anchorage C-7
	247-50-10270-2041		M	S		Anchorage C-7
11	247-50-10220	Matanuska River	M	S		Anchorage B-7
	247-50-10220-2037		M	S		Anchorage C-6
	247-50-10220-2080	Wolverine Creek	M			Anchorage C-6
	247-50-10220-2080-3019		M			Anchorage C-6
	247-50-10220-2080-3019-0010	Wolverine Lake	M	S		Anchorage C-6
	247-50-10220-2109-3012		M	S	R	Anchorage C-5
	247-50-10220-2260		M	S		Anchorage D-3
	247-50-10220-2260-0010	Tatondan Lake	M	S		Anchorage D-3
	247-50-10220-2085		M	S		Anchorage C-6
12	247-50-10200	Knik River	M			Anchorage C-6

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Stream Number	Anadromous Waters Catalog Number	Stream Name	Documented Migration	Spawning	Rearing	USGS QUAD
	247-50-10200-2071	Bodenberg Creek	M			Anchorage C-6
	247-50-10200-2071-3025		M	S		Anchorage C-6
	247-50-10200-2081	Jim Creek	M			Anchorage C-6
	247-50-10200-2081-3025-4010		M	S		Anchorage C-6
	247-50-10200-2081-3025-4010-0010	Jim Lake	M			Anchorage C-6
	247-50-10200-2126		M	S		Anchorage B-5
13	247-50-10175	Eklutna River	M		R	Anchorage B-7
14	247-50-10110	Eagle River	M		R	Anchorage B-8
15	247-50-10090	Sixmile Creek	M	S	R	Anchorage B-8
	247-50-10090-0010	Sixmile Lake	M	S	R	Anchorage B-8
16	247-50-10060*	Ship Creek	M			Anchorage A-8
17	247-60-10340	Campbell Creek	M			Anchorage A-8
	247-60-10340-0010	Campbell Lake	M		R	Anchorage A-8
	247-60-10340-2021	North Fork Campbell Creek	M	S		Anchorage A-8
18	247-60-10280	Bird Creek	M			Seward D-6
19	247-60-10250	Glacier Creek	M			Seward D-6
20	247-60-10230	Twentymile River	M	S	R	Seward D-6
	247-60-10230-2033	Twentymile River	M			Seward D-6
	247-60-10230-0010		M	S	R	Seward D-6
	247-60-10230-2028	Glacier River	M			Seward D-6
	247-60-10230-2028-0010	Carmen Lake	M			Seward D-6
	247-60-10230-3018	South Fork	M	S	R	Seward D-6
	247-60-10230-2022		M	S	R	Seward D-6
21	247-60-10220	Portage Creek	M	S	R	Seward D-6
	247-60-10220-2021	Railroad Slough	M			Seward D-6
	247-60-10220-2027		M	S	R	Seward D-6
	247-60-10220-2027-3014	Williwaw Creek	M	S	R	Seward D-6
	247-60-10220-0010	Portage Lake	M	S	R	Seward D-5
	247-60-10220-0010-2035	Placer Creek	M	S	R	Seward D-5
	247-60-10220-0010-3009	Bear Valley	M	S	R	Seward D-5
22	247-60-10210	Explorer Creek	M	S	R	Seward D-6
23	247-60-10200	Placer River	M			Seward D-6
	247-60-10200-2045		M			Seward D-6
	247-60-10200-2045-0010	Luebner Lake	M	S	R	Seward D-6

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Stream Number	Anadromous Waters Catalog Number	Stream Name	Documented Migration	Spawning	Rearing	USGS QUAD
24	247-60-10170	Sixmile Creek	M			Seward D-7
	247-60-10170-2044	Center Creek	M			Seward D-7
25	247-60-10120	Big Indian Creek	M	S	R	Seward D-8
26	247-60-10110	Chickaloon River	M			Kenai D-1
	247-60-10110-0010	Swan Lake	M	S	R	Kenai D-1
	247-60-10110-0010-2141		M	S		Kenai D-1
	247-60-10110-2080	Chickaloon River	M	S		Kenai C-1
	247-60-10110-2080-3019	Mystery Creek	M	S		Kenai C-1
27	247-90-10020	Swanson River	M			Kenai D-3
	247-90-10020-2040		M			Kenai C-3
	247-90-10020-2046		M			Kenai C-3
	247-90-10020-2046-0010	Rainbow Lake	M			Kenai C-3
	247-90-10020-2058	Swan Creek	M			Kenai C-2
	247-90-10020-2058-0020	Big Merganser Lake	M			Kenai C-2
	247-90-10020-2068		M			Kenai D-2
	247-90-10020-2068-0010	Campers Lake	M			Kenai D-2
	247-90-10020-2068-0020	Swanson Lake	M			Kenai D-2
	247-90-10020-0010	Gene Lake	M			Kenai D-2
	247-90-10020-0020	Pepper Lake	M			Kenai D-2
28	247-90-10030	Bishop Creek	M	S		Kenai C-3
	247-90-10030-0010		M			Kenai C-4
	247-90-10030-0010-2041		M			Kenai C-4
	247-90-10030-0010-2041-0010		M	S		Kenai C-4
	247-90-10030-0020		M			Kenai C-4
	247-90-10030-0030		M	S		Kenai C-4
	247-90-10030-2016		M	S		Kenai C-3
	247-90-10030-2016-0010		M	S		Kenai C-3
	247-90-10030-2016-0020		M	S		Kenai C-4
	247-90-10030-2029		M			Kenai C-4
	247-90-10030-2032		M	S		Kenai C-4
	247-90-10030-2032-0010	Daniels Lake	M	S		Kenai C-4

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