## FISHERY DATA SERIES NO. 90

EFFORT, CATCH, AND HARVEST STATISTICS FOR THE SPORT FISHERIES ON THE AGULUKPAK AND AGULOWAK RIVERS, WOOD RIVER LAKE SYSTEM, ALASKA, 1986-1988 ${ }^{1}$

By

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## ABSTRACT

Creel surveys were conducted during the summers of 1986,1987 , and 1988 on the Agulukpak and Agulowak Rivers to estimate sport fishing effort, catch (fish kept plus fish released), and harvest (fish kept only). Rainbow trout Oncorhynchus mykiss, Arctic char Salvelinus alpinus, and Arctic grayling Thymallus arcticus are the primary species targeted in both fisheries with the Agulukpak River being managed as a catch and release fishery. Data collected during these surveys indicated that effort was slightly greater on the Agulowak River (3-year average $=4,570$ angler-hours) than on the Agulukpak River (3-year average $=3,260$ angler-hours). Catches of rainbow trout on the Agulukpak River ranged from 1,322 to 3,692 fish per year. Catches and harvests of rainbow trout from the Agulowak River over the same period averaged 2,345 and 161 fish, respectively. Age and size data were collected from 417 rainbow trout from the Agulukpak and 233 rainbow trout from the Agulowak River during the 3 -year study using hook and line gear. Mean length of age 3 and 4 rainbow trout sampled from the Agulawak River were larger than those sampled from the Agulukpak River. Age frequency distributions for the Agulukpak River were normally distributed while the Agulowak River sample was skewed to younger age groups.

KEY WORDS: Agulukpak River, Agulowak River, Wood River Lakes, Bristol Bay, rainbow trout, Oncorhynchus mykiss, Arctic char, Salvelinus alpinus, Arctic grayling, Thymallus arcticus, creel survey, effort, harvest, catch, age, size.

## INTRODUCTION

The Wood River lake system, located within the Wood-Tikchik State Park, consists of a series of five lakes connected by short swift rivers (Figure 1). The waters of this system support recreational fisheries for rainbow trout Oncorhynchus mykiss, Arctic char Salvelinus alpinus, and Arctic grayling Thymallus arcticus. The sport fisheries targeting rainbow trout occur primarily in the Agulukpak and Agulowak Rivers.

Information concerning the sport fisheries in the Agulukpak and Agulowak Rivers has been limited to creel survey data collected on the Agulukpak River during 1976 and 1977 and the Agulowak River during 1975, 1976, and 1977 (Minard 1986). Results of these informal investigations suggested that sport fishing effort and catches and harvests of rainbow trout on both rivers were increasing.

In response to these increases, the Alaska Department of Fish and Game (ADF\&G), Division of Sport Fish, together with the Alaska Department of Natural Resources (ADNR), Division of Parks, initiated formal creel surveys on both the Agulowak and Agulukpak Rivers during 1986. These surveys were designed to estimate sport fishing effort, catch (fish landed), and harvest (fish retained), and to collect age and size composition data for rainbow trout stocks within the Agulukpak and Agulowak Rivers. The ADF\&G was responsible for sample design, data analysis, and reporting of the creel survey and biological data and provided financial support to ADNR to help defray operational expenses associated with the creel survey. Volunteer staff working for the ADNR acted as field technicians and were responsible for the collection of creel survey and biological data.

During the 3 -year study period (1986-1988), the Agulukpak and Agulowak Rivers were open to sport fishing all year and anglers were allowed to harvest up to five grayling, ten Arctic char, and five salmon per day. The upper 2 miles of Agulukpak River is managed as a catch and release fishery for rainbow trout and is therefore closed to the harvest of rainbow trout. In the Agulowak and the lower Agulukpak Rivers, anglers were allowed two rainbow trout per day during the period from 8 June through 31 October, of which only one could be greater than 20 inches in length. During the balance of the year, anglers were allowed a daily bag limit of five rainbow trout per day of which only one could be greater than 20 inches in length (ADF\&G 1986, 1987, 1988).

METHODS

## Creel Survey

Creel surveys were conducted on the Agulukpak and Agulowak Rivers during the years 1986, 1987, and 1988.


Figure 1. Location of the Agulukpak and Agulowak Rivers, Wood River Lake system, Alaska.

## Agulukpak River:

The study area on the Agulukpak River extended from Lake Nerka upstream to Lake Beverley (Figure 1). A direct expansion creel survey formed the basis of the sampling design. The fishing day was considered to be 24 hours long, from 0600 hours through 2100 hours. Within each day, the fishing day further stratified into five 3 -hour periods: A (0600-0859), B (900-1159), C (12001459), D (1500-1759), and E (1800-2059).

Most anglers enter and exit the fishery at the head of the Agulukpak River where it drains Lake Beverley. Technicians, stationed at this access site, attempted to interview every angler exiting the fishery and had completed fishing for the day. For each angler contacted, the creel survey technician recorded the number of hours fished, the number of fish in the angler's possession by species, the number of fish released by species, whether the angler was guided or not guided, the residency of the angler, and the type of gear used (spin, fly, or bait). All interviews were of individual anglers and not party or group interviews. Occasionally, anglers who had completed fishing exited the fishery without being interviewed. In those instances, the number of anglers not interviewed was tallied.

The estimation of angler effort by a direct expansion creel survey can be considered as a problem in estimating a rate. Effort was estimated in units of angler-hours. The rate estimated is the mean effort in angler-hours per hour of sampling. The product of this rate and the total number of possible fishing hours (length of the angler-day) is the estimate of angler effort which was expressed as:

$$
\begin{equation*}
\hat{E}=\sum_{j=1}^{p} H_{j}\left(\bar{e}_{j} / \bar{h}_{j}\right) \tag{1}
\end{equation*}
$$

where;
$\wedge$
$\mathrm{E}=$ the estimate of effort in angler-hours,
$H_{j}=$ the number of hours possible fishing time, in period $j$,
$e_{j}=$ the mean number of angler-hours leaving a census site during period $j$, and
$h_{j}=$ the mean number of hours censused during period $j$ on all days sampled.

The survey on the Agulukpak River is the simplest case of a direct expansion survey since sampling occurred continuously over the entire length of the angling day which was considered to be 24 hours long.

The variance of effort was estimated as:

$$
\begin{equation*}
\hat{V}(E)=\sum_{j=1}^{p} H_{j}^{2} V\left(\bar{e}_{j} / \bar{h}_{j}\right) \tag{2}
\end{equation*}
$$

The variance of the rate, $\bar{e}_{j} / \bar{h}_{j}$, was approximated by the variance for the quotient of two random variables (Jessen 1978):

$$
\begin{equation*}
V\left(\bar{e}_{j} / \bar{h}_{j}\right) \approx\left(\bar{e}_{j} / \bar{h}_{j}\right)^{2}\left(1 / d_{j}\right)\left(s / e_{j}^{2}+s_{h}^{2} / \bar{h}_{j}^{2}-2 r s_{c} s_{h} / \bar{e}_{j} \bar{h}_{j}\right)\left(1-h_{j} / H_{j}\right) \tag{3}
\end{equation*}
$$

where:

$$
\begin{aligned}
r & =\text { correlation between } e \text { and } h, \\
d_{j}= & \text { the number of days censused, } \\
s_{e}^{2}= & \text { the sample variance for the mean number of angler-hours leaving a } \\
& \text { census site, and } \\
s_{h}^{2}= & \text { the sample variance for the mean number of hours censused on a } \\
& \text { sample day. }
\end{aligned}
$$

In most of the fisheries surveyed, the time spent surveying on period $j$ ( $h_{j}$ ) was relatively constant on each sampling occasion. In some instances, i.e. on days when no interviews were conducted, $h_{j}$ varied considerably during the fishery and the $h_{j}$ were considered random variables. This variation is represented by the variance of the sample unit length in Equation 13 ( $s_{h}{ }^{2}$ ). The coefficient of variation was used to determine if the $h_{j}$ were treated as random variables. If the coefficient of variation exceeded $20 \%$, the $h_{j}$ were treated as random variables, otherwise the $h_{j}$ were treated as constant.

For $h_{j}$ constant, $s_{h}{ }^{2}$ equals zero and the variance of the estimate of the variance of the estimated angler effort simplifies to:

$$
\begin{equation*}
V(\hat{E})=\sum_{v=1}^{p} d_{j}\left(H_{j} / h_{j}\right)^{2} s_{e}^{2}\left(1-h_{j} / H_{j}\right) \tag{4}
\end{equation*}
$$

When it was not possible to interview all anglers leaving the access site, the effort by the anglers who were not interviewed was estimated. In contrast to the previous situation, where the effort leaving the fishery during period $j\left(e_{j}\right)$ was considered to be

$$
\begin{equation*}
\hat{e}_{j}=M_{j} \bar{f}_{j} \tag{5}
\end{equation*}
$$

and the associated variance as:

$$
\begin{equation*}
\hat{s}_{e j}^{2}=M_{j}^{2}\left(s_{f j}^{2} / m_{j}\right)\left(1-m_{j} / M_{j}\right) \tag{6}
\end{equation*}
$$

Effort for period $j$ was estimated by:

$$
\begin{equation*}
\hat{E}_{j}=H_{j}\left(\hat{e}_{j} / h_{j}\right) \tag{7}
\end{equation*}
$$

The variance of $\hat{E}_{j}$ was estimated using equations 12 and 13 with the exception that the variance of the mean number of angler-hours of effort by completed-trip anglers censused during each sampling event now has two components, the within-day variance due to missed anglers and the between-day variance. Letting $\hat{\mathbf{s}}_{2}$ estimate the variance of $\hat{e}_{j}$ :

$$
\begin{equation*}
\left.\hat{s}_{e}=s_{B e}^{2}+h_{j} /\left[d_{j}\left(H_{j}-h_{j}\right)\right] \underset{i=1}{D \wedge_{2}} \hat{s}_{i j}\right) \tag{8}
\end{equation*}
$$

with the between-day variance $\left(s_{\mathrm{Be}}{ }^{2}\right)$ estimated as:

$$
\begin{equation*}
s_{B e}^{2}=\left[\sum_{i=1}^{D}\left(e_{i j}-\bar{e}_{j}\right)^{2}\right] /\left(d_{j}-1\right) \tag{9}
\end{equation*}
$$

the variance of $\hat{E}_{j}$ was estimated by substituting $\hat{s}_{\mathbf{e}}$ for $\mathbf{s}_{\mathbf{e}}$ in equation 13 (Sukhatme et al. 1984).

By replacing $\mathbf{s}_{e}^{2}$ with $\hat{\wedge}_{2}$, the variance of the angler effort estimate simplifies to equation 14 when the $h_{j}$ are constant.

The catch and harvest of a species, and their variances, were estimated with the same procedures used to estimate effort by simply substituting the corresponding quantities for catch or harvest in place of effort.

Assumptions necessary for the direct expansion creel survey design are:

1. no significant fishing effort occurs during the hours not included in the fishing day;
2. all anglers participating in a particular fishery exit the fishery through the surveyed access site; and,
3. all anglers who are not interviewed are counted and all noninterviewed anglers are completed-trip anglers.

Agulowak River:
The study area on the Agulowak River was from its head at Lake Nerka to the mouth at Aleknagik Lake (Figure 1). A roving creel survey (Neuhold and Lu 1957) using a stratified, random sampling design was employed to count anglers and conduct angler interviews. Counts of anglers were used to
estimate effort in units of angler-hours and interviews of anglers provided estimates of catch rates (fish per angler-hour) by species. The product of the estimated effort and the species specific catch and harvest rates was the estimate of catch and harvest for a given species.

Effort levels, thought to reflect seasonal availability of rainbow trout, formed the basis for stratification of the study periods. The study period in 1986 (19 June through 23 August) was stratified into three temporal components: Component 1 ( 16 June to 12 July ); Component 2 ( 13 July to 11 August) ; and, Component 3 (12 August to 23 August). For the purpose of the creel survey, the fishing day in 1986 was defined as 15 hours in duration (0600-2100 hrs) with each day being divided into five time strata: Period A (0600-0859 hrs) ; Period B ( $0900-1159 \mathrm{hrs}$ ); Period C ( $1200-1459 \mathrm{hrs}$ ); Period D (1500-1759 hrs) ; and, Period E (1800-2100 hrs).

Based on information collected during the 1986 surveys, the creel survey was restratified during 1987. In 1987 , the study period ( 6 June through 7 September) was stratified into three different temporal components: Component 1 ( 6 June to 23 June); Component 2 ( 24 June to 1 August); and, Component 3 (2 August to 7 September). From 6 June through 15 August, the fishing day was defined as 16 hours in duration (0800-2400) with each day being divided into four time strata: Period A (0800-1159 hrs); Period B (1200-1559 hrs); Period C (1600-1959 hrs) ; and, Period D (2000-2400 hrs). From 16 August on, the fishing day was shortened to 12 hours in duration and divided into three time periods with Periods A, B, and $C$ remaining the same as above and Period D being eliminated.

Based on information collected during the 1986 and 1987 surveys, the creel survey was again restratified during 1988. In 1988 , two temporal components were defined as Component 1 ( 6 June to 31 July ), and Component 2 (1 August to 6 September). The stratification of the angling day was the same as was described for the 1987 survey.

The sampling level in 1986 was 11 angler count and interview trips per week. Time strata to be sampled were randomly chosen subject to the constraint that a maximum of two sample units could be designated in any one day. This random selection process was done independently for each period. In 1987 and 1988, the sampling level was increased to ten angler count/interview sessions and five angler counts per week with all time strata being sampled with equal intensity.

A survey trip started at the upstream or downstream boundary of the survey area. A coin was tossed to determine if a count or interview session was to be conducted first. For a count, the technician drove a skiff through the fishery area at a near constant speed and counted all anglers actively fishing. The count was completed within 40 to 60 minutes of the start and was considered an instantaneous count (Neuhold and Lu 1957).

All interviews were of individual anglers and were not party interviews. The technician attempted to keep the number of anglers interviewed proportional to the angler effort expended during the sampled time (Neuhold and Lu 1957, DiConstanzo 1956). Anglers were randomly selected throughout the fishing
area. For each angler contacted, the technician recorded the number of hours fished, the number of fish in the angler's possession by species, the number of fish released by the angler by species, whether the angler was guided or not guided, the residency of the angler, and the gear used (spin, fly, or bait). Most angler interviews were uncompleted-trip interviews. Completedtrip information was collected on an opportunistic basis as often as possible, and entered on the angler interview form as previously described.

Effort was estimated for each temporal component of the fishery using a stratified random sampling approach by period. Within each temporal component, effort ( $E_{c}$ ) was estimated as follows:

$$
\begin{equation*}
\hat{E}_{c}=\sum_{i=1}^{p} H_{i} \bar{x}_{i} \tag{10}
\end{equation*}
$$

where:
$H_{i}=$ the total number of hours of possible fishing time in period i, and
$\bar{x}_{i}=$ the mean angler count for period $i$ over all periods.
The variance of $\hat{E}_{c}$ was estimated as follows:

$$
\begin{equation*}
\mathrm{V}\left(\hat{\mathrm{E}}_{\mathrm{c}}\right)=\sum_{\mathrm{i}=1}^{\mathrm{p}} \mathrm{H}_{\mathrm{i}}^{2}\left(\mathrm{~s}^{2} / \mathrm{m}_{\mathrm{i}}\right) \tag{11}
\end{equation*}
$$

where:

$$
\begin{equation*}
s^{2}=\left[\sum_{t=1}^{w} \sum_{i=1}^{p}\left(y_{i k}-\bar{Y}_{i}\right)^{2}\right] /\left(m_{i}-1\right) \tag{12}
\end{equation*}
$$

and:
$y_{i k}=a$ count of anglers made during day $k$ and period $i$,
$\bar{Y}_{i}=$ the mean count of anglers for period $i$, and
$m_{i}=$ the number of counts of anglers conducted during period $i$.
The total number of angler-hours of effort for the season was estimated by summing the estimates of effort for each of the temporal components. Because these are independent estimates, the variance for the total number of anglerhours of effort is the sum of the individual variances for each temporal component estimate.

Mean catch per unit effort (catch per angler-hour) was estimated for each temporal component as:

$$
\begin{equation*}
\overline{\mathrm{CPUE}}_{c}=\sum_{\mathrm{h}=1}^{\mathrm{m}_{j}} c_{c h} / \sum_{\mathrm{h}=1}^{\mathrm{m}_{j}} \mathrm{e}_{\mathrm{ch}} \tag{13}
\end{equation*}
$$

where:
$\mathrm{m}_{\mathrm{j}}=$ the number of anglers interviewed during component c ,
$c_{c h}=$ the catch by ang1er $h$ interviewed during component $c$, and
$e_{c h}=$ the effort (number of hours) expended by angler $h$ at the time of the interview.

Omitting the finite population correction factor, the variance of mean CPUE $_{j}$ was approximated as (Jessen 1978):

$$
\begin{equation*}
V\left(\overline{\operatorname{CPUE}}_{j}\right)=\left(\overline{\mathrm{C}}_{\mathrm{c}} / \overline{\mathrm{E}}_{\mathrm{c}}\right)^{2}\left[s_{c}^{2} / \overline{\mathrm{C}}_{c}^{2}+s_{e}^{2} / \bar{E}_{c}^{2}-\left(2 \mathrm{r}_{c} s_{c} s_{e} / \overline{\mathrm{C}}_{c} \overline{\mathrm{E}}_{\mathrm{c}}\right)\right] \tag{14}
\end{equation*}
$$

where:
$\overline{\mathrm{C}}_{c}=$ the mean catch of a particular species by anglers in component $c$,
$\overline{\mathrm{E}}_{\mathrm{c}}=$ the mean effort by anglers in component c ,
$s_{c}{ }^{2}=$ the two-stage variance estimate for of $\bar{C}_{c}$,
$s_{e}{ }^{2}=$ the two-stage variance estimate for $\bar{E}_{c}$, and
$r_{j}=$ the correlation coefficient for $c_{c h}$ and $e_{k}$.
The catch of species $k$ during component $c$ was estimated by:

$$
\begin{equation*}
\hat{\mathrm{C}}_{\mathrm{kc}}=\hat{\mathrm{E}}_{\mathrm{c}}\left(\overline{\mathrm{CPUE}}_{\mathrm{c}}\right) \tag{15}
\end{equation*}
$$

The variance of the estimated catch of species $k$ was estimated using the product of two independent random variables as described in Goodman (1960).

Harvest rates and total harvest of species $k$ was estimated for each temporal component by substituting appropriate harvests for catches in equations 13 , 14 , and 15.

Total catch and harvest of a species $k$ for the season was estimated by summing the estimates of catch and harvest for each of the temporal components. Because these are independent estimates, the variances of the total catch and harvest estimates are the sums of the individual variances for each temporal component.

The assumptions necessary for these analyses are:

1. incomplete-trip angler CPUE provide an unbiased estimate of completed-trip angler CPUE;
2. interviewed anglers were representative of the total angler population and anglers were interviewed in proportion to their abundance on the day of the interview;
3. no significant fishing effort occurred outside the selected fishing day during each year at the survey;
4. catch and effort by individual anglers are normally distributed random variables; and,
5. catch rate and duration of fishing trip are independent (DiConstanzo 1956).

Age, Sex, Weight, and Length Sampling
Rainbow trout were captured using hook and line and measured for fork length to the nearest millimeter, weighed to the nearest 10 grams, and sexed when possible. Scales were collected on the left side of the fish approximately two rows above the lateral line and on the diagonal row downward from the posterior insertion of the dorsal fin as described in Clutter and Whitesel (1956). Scales were mounted on adhesive-coated cards and impressions were made in cellulose acetate. Age determinations were made by examination of scales using a microfiche reader. Each fish was tagged at the base of the dorsal fin on the left side with a numbered Floy anchor tag. All biological data were recorded on Division of Sport Fish biological mark-sense forms.

The age composition of the rainbow trout sport catch sample was calculated from all legible scales collected during each year. Letting $p_{h}$ equal the estimated proportion of age group $h$ in the sample, the variance of $p_{h}$ was estimated using the normal approximation to the binomial (Schaeffer et al. 1979):

$$
\begin{equation*}
V\left(\hat{\mathrm{p}}_{\mathrm{h}}\right)=\hat{\mathrm{p}}_{\mathrm{h}}\left(1-\hat{\mathrm{p}}_{\mathrm{h}}\right) /\left(\mathrm{n}_{\mathrm{T}}-1\right) \tag{16}
\end{equation*}
$$

where $\mathrm{n}_{\mathrm{T}}$ is the total number of legible scales collected from rainbow trout during the fishery. Mean length by age group and its variance were estimated using standard normal procedures.

The age composition proportions of the sampled trout from each river was tested for differences using a contingency table analysis (MINITAB 1988). A student's t-test was used to test for differences between mean lengths-at-age of the sampled trout from each river (MINITAB 1988).

## RESULTS

## Creel Statistics

Sport fishing effort during the survey periods on the Agulukpak River was estimated to be 1,826 angler-hours in $1986,4,265$ angler-hours in 1987 , and 3,685 angler-hours in 1988 (Table 1). Sport fishing effort on the Agulowak

Table 1. Estimated effort (angler-hours), by temporal component, for the sport fishery in the Agulukpak River, 1986-1988.

| Year | Component <br> (Dates) |  | ```Number of Interviews``` | $\mathrm{D}^{1}$ | $d^{2}$ | Estimated Effort |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Ang-Hrs |  |  | SE ${ }^{3}$ | $\mathrm{RP}^{4}$ |
| 1986 | A11 | $1(6 / 29-8 / 22)$ |  | 331 | 53 | 33 | 1,826 | 208.8 | 22.4\% |
| 1987 | 1 | (6/17-7/11) | ) 111 | 25 | 19 | 665 | 57.5 | 16.9\% |
|  |  | (7/12-8/22) | 408 | 44 | 44 | 2,303 | 0.0 | 0.0\% |
|  |  | (8/23-9/16) | ) 198 | 19 | 19 | 1,297 | 0.0 | 0.0\% |
|  |  | Season | 717 | 88 | 82 | 4,265 | 58 | 2.68 |
| 1988 | 1 | (6/14-7/08) | 96 | 25 | 25 | 475 | 17.94 | 7.48 |
|  |  | (7/09-8/02) | ) 214 | 25 | 25 | 1,183 | 27.29 | 4.5\% |
|  |  | (8/3-8/27) | 215 | 25 | 25 | 997 | 2.82 | $0.6 \%$ |
|  |  | (8/28-9/16) | ) 197 | 20 | 20 | 1,030 | 32.06 | $6.1 \%$ |
|  |  | eason | 722 | 95 | 95 | 3,685 | 45.86 | 2.48 |

1 Number of days possible.
2 Number of days surveyed.
3 Standard error.
4 Relative precision ( $\alpha=0.05$ ).

River was estimated to be 3,732 angler-hours in 1986, 6,397 angler-hours in 1987, and 3,582 angler-hours in 1988 (Table 2).

Catches and harvests per hour, by species and temporal component, are listed for the Agulukpak River in Tables 3, 4, and 5. Catch rates for rainbow trout greater than 0.5 fish per angler hour occurred in all 3 years and exceeded one fish per hour in 1987 and 1988. These data also suggest that Arctic char and Arctic grayling play an important role in the sport fishery of the Agulukpak River. Harvest rates for all species were low.

Catches and harvests per hour, by species and temporal component, are listed for the Agulowak River, by year, in Tables 6, 7, and 8. These data indicate that rainbow trout, Arctic char, and Arctic grayling are caught frequently in this fishery. Rainbow trout catch per hour exceeded one fish in 1988 while catch rates for Arctic char exceeded one fish per hour during each of the 3 years of the study. Harvest rates appear moderate for all species.

The rainbow trout catch in the Agulukpak River totaled 1,322 during the 1986 season, with none harvested (Table 9). A total of 659 Arctic char were caught of which 59 (9\%) were harvested. Additionally, 1,291 Arctic grayling were caught of which 15 (18) were harvested. The 1987 rainbow trout catch rose to 3,692 fish, of which 2 were harvested (Table 10). Peak catches in 1987 occurred in temporal components two and three. Arctic char catch and harvest peaked in temporal component two, and totaled 1,892 and 152 (8\%), respectively. Arctic grayling also peaked in temporal component 2. A total of 2,649 Arctic grayling were caught, of which 26 (18) were harvested.

The catch and harvest of rainbow trout in 1988 from the Agulukpak River was 2,884 and 0 fish, respectively (Table 11). Catches of Arctic char and grayling totaled 2,312 , and 2,051 fish respectively. Harvests for all species were negligible.

In 1986, the rainbow trout catch in the Agulowak River totaled 1,783, of which 84 (5\%) were harvested (Table 12). Peak rainbow trout catch and harvest occurred during temporal component two. Arctic char peak catch and harvest occurred during temporal component one, and seasonal totals were 5,151 and 1,217 (128), respectively. In 1987, the rainbow trout catch and harvest increased to 2,584 and 328 (13\%), respectively (Table 13). Catch peaked in temporal component three, and harvest peaked in temporal component two. Arctic char seasonal catch and harvest was 3,716 and 660 (18\%), respectively, and both peaked in temporal component two. Of 616 Arctic grayling caught, only 15 (2\%) were harvested. However, the percent of sockeye $O$. nerka and coho $O$. kisutch salmon harvested was $52 \%$ and $100 \%$ from catches of 60 and 15 , respectively.

Catches and harvests for the 1988 season are listed by species for the Agulowak River in Table 14 . Of the 2,666 rainbow trout landed, 72 , or $2.7 \%$ were harvested. Char catches totaled 4,176 fish of which 551 (13.28) were harvested. Arctic grayling catch and harvest was estimated to be 1,308 and 22 (1.7\%) fish, respectively.

Table 2. Estimated effort (angler-hours), by temporal component, for the sport fishery in the Agulowak River, 1986-1988.

| Year | Component (Dates) |  | $\begin{gathered} \text { Number } \\ \text { of } \\ \text { Interviews } \end{gathered}$ | $\mathrm{D}^{1}$ | $\mathrm{d}^{2}$ | Estimated Effort |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Ang-Hrs |  |  | SE ${ }^{3}$ | RP4 |
| 1986 | 1 | (6/16-7/12) |  | ) 55 | 24 | 9 | 1,373 | 340.5 | 48.6\% |
|  | 2 | (7/13-8/11) | ) 140 | 30 | 16 | 1,816 | 319.9 | 34.5\% |
|  | 3 | (8/12-8/23) | ) 56 | 12 | 8 | 543 | 257.3 | 92.9\% |
|  |  | Season | 251 | 66 | 33 | 3,732 | 533.3 | 28.0\% |
| 1987 | 1 | (6/06-6/23) | ) 33 | 18 | 7 | 591 | 116.1 | 38.5\% |
|  | 2 | (6/24-8/01) | ) 136 | 39 | 19 | 3,572 | 336.0 | 18.48 |
|  | 3 | (8/02-9/07) | ) 96 | 37 | 16 | 2,234 | 353.2 | $31.0 \%$ |
|  |  | Season | 265 | 94 | 42 | 6,397 | 501.1 | 15.48 |
| 1988 | 1 | (6/06-7/31) | ) 188 | 56 | 22 | 2,488 | 207.1 | 23.3\% |
|  | 2 | (8/01-9/06) | ) 160 | 37 | 24 | 1,094 | 295.6 | $37.1 \%$ |
|  |  | Season | 348 | 93 | 46 | 3,582 | 360.9 | 19.7\% |

1 Number of days possible.
2 Number of days surveyed.
3 Standard error.
4 Relative precision ( $\alpha=0.05$ ).

Table 3. Estimated catch and harvest rates (fish per angler-hour), by species, for sport fishery (6/29-8/22) in the Agulukpak River, 1986.

|  | Catch |  |  | Harvest |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  | Fish/Hr | $\mathrm{SE}^{1}$ |  | Fish/Hr | $\mathrm{SE}^{1}$ |
|  |  |  |  |  |  |
| Rainbow Trout | 0.7243 | 0.0039 |  | 0.0000 | 0.0000 |
| Arctic Char | 0.3609 | 0.0058 |  | 0.0321 | 0.0006 |
| Arctic Grayling | 0.7074 | 0.0043 |  | 0.0080 | 0.0003 |
| Sockeye Salmon | 0.0786 | 0.0010 |  | 0.0056 | 0.0001 |
| Coho Salmon | 0.0024 | 0.0001 |  | 0.0000 | 0.0000 |

1 Standard error.

Table 4. Estimated catch and harvest rates (fish per anglerhour), by species and temporal component, for the sport fishery in the Agulukpak River, 1987.

|  |  | Catch |  |  | Harvest |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Temporal <br> Component | Fish/Hr | $\mathrm{SE}^{2}$ |  | Fish/Hr | $\mathrm{SE}^{2}$ |
|  |  |  |  |  |  |  |
| Rainbow | 1 | 0.2512 | 0.0347 | 0.0020 | 0.0012 |  |
| Trout | 2 | 0.6931 | 0.0410 | 0.0004 | 0.0004 |  |
|  | 3 | 1.4869 | 0.0809 | 0.0000 | 0.0000 |  |
|  |  |  |  |  |  |  |
| Arctic | 1 | 0.8405 | 0.1250 | 0.0949 | 0.0171 |  |
| Char | 2 | 0.4773 | 0.0472 | 0.0356 | 0.0050 |  |
|  | 3 | 0.1804 | 0.0203 | 0.0054 | 0.0032 |  |
|  |  |  |  |  |  |  |
| Arctic | 1 | 0.6724 | 0.0107 | 0.0198 | 0.0086 |  |
| Grayling | 2 | 0.6905 | 0.0520 | 0.0017 | 0.0011 |  |
|  | 3 | 0.4717 | 0.0554 | 0.0069 | 0.0035 |  |
|  |  |  |  |  |  |  |
| Sockeye | 1 | 0.0040 | 0.0033 | 0.0040 | 0.0033 |  |
| Salmon | 2 | 0.0973 | 0.0139 | 0.0104 | 0.0027 |  |
|  | 3 | 0.1927 | 0.0330 | 0.0000 | 0.0000 |  |
|  |  |  |  |  |  |  |
| Northern | 1 | 0.1009 | 0.0457 | 0.0020 | 0.0010 |  |
| Pike | 2 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |  |
|  | 3 | 0.0039 | 0.0024 | 0.0000 | 0.0000 |  |
|  |  |  |  |  |  |  |

1 Component 1: 6/17-7/11; Component 2: 7/12-8/28; and, Component 3: 8/29-9/16.
2 Standard error.

Table 5. Estimated catch and harvest rates (fish per anglerhour), by species and temporal component, for the sport fishery in the Agulukpak River, 1988.

|  |  | Catch |  |  | Harvest |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Tempora1 <br> Component | Fish/Hr | $\mathrm{SE}^{2}$ |  | Fish/Hr | $\mathrm{SE}^{2}$ |
|  |  |  |  |  |  |  |
| Rainbow | 1 | 0.2941 | 0.0363 | 0.0000 | 0.0000 |  |
| Trout | 2 | 0.7888 | 0.0550 | 0.0000 | 0.0000 |  |
|  | 3 | 1.2998 | 0.0903 | 0.0000 | 0.0000 |  |
|  | 4 | 0.5563 | 0.0593 | 0.0000 | 0.0000 |  |
|  |  |  |  |  |  |  |
| Arctic | 1 | 0.6453 | 0.0769 | 0.0439 | 0.0147 |  |
| Char | 2 | 0.0325 | 0.0078 | 0.0057 | 0.0028 |  |
|  | 3 | 0.0724 | 0.0240 | 0.0021 | 0.0009 |  |
|  | 4 | 1.8926 | 0.1352 | 0.0164 | 0.0076 |  |
|  |  |  | 0.6409 | 0.1455 | 0.0154 | 0.0060 |
| Arctic | 1 | 0.7180 | 0.0577 | 0.0029 | 0.0030 |  |
| Grayling | 2 | 0.5501 | 0.0480 | 0.0052 | 0.0098 |  |
|  | 3 | 0.3556 | 0.1053 | 0.0000 | 0.0000 |  |
|  | 4 |  |  |  |  |  |
| Sockeye | 1 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |  |
| Salmon | 2 | 0.1264 | 0.0272 | 0.0220 | 0.0055 |  |
|  | 3 | 0.1975 | 0.0449 | 0.0062 | 0.0077 |  |
|  | 4 | 0.4614 | 0.0689 | 0.0000 | 0.0000 |  |

1 Component 1: 6/14-7/8; Component 2: 7/9-8/2;
Component 3: 8/3-8/27; Component 4: 8/28-9/16.
2 Standard error.

Table 6. Estimated catch and harvest rates (fish per anglerhour), by species and temporal component, for the sport fishery in the Agulowak River, 1986.

|  | Temporal Component ${ }^{1}$ | Catch |  | Harvest |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Fish/Hr | $\mathrm{SE}^{2}$ | Fish/Hr | $S E^{2}$ |
| Rainbow | 1 | 0.1647 | 0.0096 | 0.0000 | 0.0000 |
| Trout | 2 | 0.7657 | 0.0201 | 0.0463 | 0.0017 |
|  | 3 | 0.3076 | 0.0161 | 0.0000 | 0.0000 |
| Arctic | 1 | 2.7862 | 0.1238 | 0.5902 | 0.0201 |
| Char | 2 | 0.6321 | 0.0130 | 0.1953 | 0.0060 |
|  | 3 | 0.3268 | 0.0145 | 0.0961 | 0.0054 |
| Arctic | 1 | 0.0549 | 0.0045 | 0.0000 | 0.0000 |
| Grayling | 2 | 0.3649 | 0.0132 | 0.0154 | 0.0023 |
|  | 3 | 0.0577 | 0.0073 | 0.0000 | 0.0000 |
| Sockeye | 1 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Salmon | 2 | 0.0154 | 0.0016 | 0.0103 | 0.0013 |
|  | 3 | 0.4806 | 0.0236 | 0.1922 | 0.0188 |

1
Component 1: 6/19-7/12; Component 2: 7/13-8/11; and, Component 3: 8/12-8/23.
2 Standard error.

Table 7. Estimated catch and harvest rates (fish per anglerhour), by species and temporal component, for the sport fishery in the Agulowak River, 1987.

|  | Temporal Component ${ }^{1}$ | Catch |  | Harvest |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Fish/Hr | SE ${ }^{2}$ | Fish/Hr | SE ${ }^{2}$ |
| Rainbow | 1 | 0.1260 | 0.1291 | 0.0315 | 0.0215 |
| Trout | 2 | 0.2399 | 0.0738 | 0.0600 | 0.0238 |
|  | 3 | 0.7379 | 0.2146 | 0.0427 | 0.0313 |
| Arctic | 1 | 1.2132 | 0.2926 | 0.2994 | 0.1047 |
| Char | 2 | 0.7026 | 0.1544 | 0.1200 | 0.0352 |
|  | 3 | 0.2195 | 0.0549 | 0.0244 | 0.0118 |
| Arctic | 1 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Grayling | 2 | 0.1114 | 0.0607 | 0.0043 | 0.0026 |
|  | 3 | 0.0976 | 0.0398 | 0.0000 | 0.0000 |
| Sockeye | 1 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Salmon | 2 | 0.0129 | 0.0157 | 0.0086 | 0.0155 |
|  | 3 | 0.0061 | 0.0185 | 0.0000 | 0.0000 |
| Coho | 1 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Salmon | 2 | 0.0043 | 0.0026 | 0.0043 | 0.0026 |
|  | 3 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

1 Component 1: 6/6-6/23; Component 2: 6/24-8/1; and, Component 3: 8/2-9/7.
2 Standard error.

Table 8. Estimated catch and harvest rates (fish per anglerhour), by species and temporal component, for the sport fishery in the Agulowak River, 1988.

|  | Temporal Component ${ }^{1}$ | Catch |  | Harvest |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Fish/Hr | $\mathrm{SE}^{2}$ | Fish/Hr | $\mathrm{SE}^{2}$ |
| Rainbow | 1 | 0.5655 | 0.2087 | 0.0241 | 0.0118 |
| Trout | 2 | 1.1507 | 0.1654 | 0.0114 | 0.0074 |
| Arctic | 1 | 1.4981 | 0.3497 | 0.2166 | 0.0575 |
| Char | 2 | 0.4102 | 0.2419 | 0.0114 | 0.0129 |
| Arctic | 1 | 0.2677 | 0.1235 | 0.0090 | 0.0054 |
| Grayling | 2 | 0.5867 | 0.1026 | 0.0000 | 0.0000 |
| Sockeye | 1 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Salmon | 2 | 0.0598 | 0.0239 | 0.0114 | 0.0057 |

${ }_{2}$ Component 1: $6 / 6$ to $7 / 31$; Component $2: 8 / 1$ to $9 / 6$.
2 Standard error.

Table 9. Estimated catch and harvest, by species, for the sport fishery (6/29-8/22) in the Agulukpak River, 1986.

| Species | Catch |  |  | Harvest |  |  | Percent Harvested |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number | $\mathrm{SE}^{1}$ | RP ${ }^{2}$ | Number | $\mathrm{SE}^{1}$ | $\mathrm{RP}^{2}$ |  |
| Rainbow Trout | 1,322 | 151 | 22.4\% | 0 | 0 |  | 0.0\% |
| Arctic Char | 659 | 76 | $22.6 \%$ | 59 | 7 | 22.5\% | 9.0\% |
| Arctic Grayling | 1,291 | 148 | 22.5\% | 15 | 2 | 22.6\% | 1.2\% |
| Sockeye Salmon | 143 | 16 | $22.6 \%$ | 10 | 1 | 19.6\% | 0.0\% |
| Coho Salmon | 4 | 0 | $0.0 \%$ | 0 | 0 |  | $0.0 \%$ |
| 1 Standard error <br> 2 Relative preci | ision ( | $=0$ |  |  |  |  |  |

Table 10. Estimated catch and harvest, by species and temporal component, for the sport fishery in the Agulukpak River, 1987.

| Species | Temporal Component | Catch |  |  | Harvest |  | Percent Harvested |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Number | SE ${ }^{1}$ | RP ${ }^{2}$ | Number | $\mathrm{SE}^{1} \mathrm{RP}^{2}$ |  |
| Rainbow Trout | 1 | 167 | 25 | 29.2\% | 1 | 0 0.0\% | 0.6\% |
|  | 2 | 1,596 | 0 | $0.0 \%$ | 1 | 0 0.0\% | $0.1 \%$ |
|  | 3 | 1,929 | 0 | 0.0\% | 0 | 0 | 0.0\% |
|  | Total | 3,692 | 25 | 1.3\% | 2 | 0 0.0\% | 0.18 |
| Arctic <br> Char | 1 | 559 | 116 | 40.8\% | 63 | $926.6 \%$ | 11.3\% |
|  | 2 | 1,099 | 0 | 0.0\% | 82 | 0 0.0\% | 7.58 |
|  | 3 | 234 | 0 | $0.0 \%$ | 7 | 0 0.0\% | 3.0\% |
|  | Total | 1,892 | 116 | 12.18 | 152 | $911.0 \%$ | 8.0\% |
| Arctic Grayling | 1 | 447 | 66 | $28.8 \%$ | 13 | $342.5 \%$ | 2.98 |
|  | 2 | 1,590 | 0 | 0.0\% | 4 | 0 0.0\% | 0.3\% |
|  | 3 | 612 | 0 | $0.0 \%$ | 9 | 0 0.0\% | 1.5\% |
|  | Total | 2,649 | 66 | 4.9\% | 26 | $321.3 \%$ | 1.0\% |
| Sockeye Salmon | 1 | 3 | 1 | $65.3 \%$ | 3 | $165.3 \%$ | 0.0\% |
|  | 2 | 224 | 0 | 0.0\% | 24 | 0 0.0\% | 10.7\% |
|  | 3 | 250 | 8 | $6.0 \%$ | 0 | 0 | 0.0\% |
|  | Total | 477 | 1 | 0.48 | 27 | $17.3 \%$ | 5.7\% |
| Northern Pike | 1 | 67 | 16 | 46.4\% | 1 | 0 0.0\% | 1. $5 \%$ |
|  | 2 | 0 | 0 |  | 0 | 0 |  |
|  | 3 | 5 | 0 | 0.0\% | 0 | 0 | 0.0\% |
|  | Total | 72 | 16 | 43.2\% | 1 | 0 0.0\% | 1.4\% |

1
Component 1: 6/17-7/11; Component 2: 7/12-8/28; and, Component 3: 8/29-9/16.
2
Standard error.
${ }^{3}$ Relative precision ( $\alpha=0.05$ ).

Table 11. Estimated catch and harvest, by species and temporal component, for the sport fishery in the Agulukpak River, 1988.


1
Component 1: 6/14-7/8; Component 2: 7/9-8/2;
Component 3: 8/3-8/27; Component 4: 8/28-9/16.
2 Standard error.
${ }^{3}$ Relative precision ( $\alpha=0.05$ ).

Table 12. Estimated catch and harvest, by species and temporal component, for the sport fishery in the Agulowak River, 1986.

| Species | Temporal Component |  | Catch |  |  | Harvest |  |  | Percent Harvested |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Number | SE ${ }^{1}$ | RP ${ }^{2}$ | Number | SE | RP ${ }^{2}$ |  |
| Rainbow <br> Trout |  | 1 | 226 | 58 | 49.9\% | 0 | 0 |  | 0.0\% |
|  |  | 2 | 1,390 | 248 | 34.9\% | 84 | 15 | 35.3\% | 6.0\% |
|  |  | 3 | 167 | 80 | 93.3\% | 0 | 0 |  | 0.0\% |
|  | Total |  | 1,783 | 266 | 29.3\% | 84 | 15 | 35.3\% | 4.7\% |
| Arctic Char |  | 1 | 3,826 | 963 | 49.3\% | 810 | 203 | 49.18 | $21.2 \%$ |
|  |  | 2 | 1,148 | 204 | 34.7\% | 355 | 63 | 35.0\% | 30.9\% |
|  |  | 3 | 177 | 84 | 93.4\% | 52 | 25 | 93.6\% | 29.4\% |
|  | Total |  | 5,151 | 988 | 37.68 | 1,217 | 214 | 34.4\% | $23.6 \%$ |
| Arctic Grayling |  | 1 | 75 | 20 | 51.3\% | 0 | 0 |  | $0.0 \%$ |
|  |  | 2 | 663 | 119 | 35.2\% | 28 | 6 | 44.8\% | 4.2\% |
|  |  | 3 | 31 | 15 | 96.3\% | 0 | 0 |  | 0.0\% |
|  | Total |  | 769 | 122 | 31.0\% | 28 | 6 | 44.8\% | $3.6 \%$ |
| Sockeye Salmon |  | 1 | 0 | 0 |  | 0 | 0 |  | 0.0\% |
|  |  | 2 | 28 | 6 | 40.2\% | 19 | 4 | 42.5\% | 67.98 |
|  |  | 3 | 261 | 124 | 93.28 | 104 | 50 | 94.7\% | 39.8\% |
|  | Total |  | 289 | 124 | 84.3\% | 123 | 50 | 80.3\% | 42.68 |

1 Component 1: 6/19-7/12; Component 2: 7/13-8/11; and, Component 3: 8/12-8/23.
2 Standard error.
${ }^{3}$ Relative precision ( $\alpha=0.05$ ).

Table 13. Estimated catch and harvest, by species and temporal component, for the sport fishery in the Agulowak River, 1987.

${ }^{1}$ Component 1: 6/6-6/23; Component 2: 6/24-8/1; and,
Component 3: 8/2-9/7.
2 Standard error.
${ }^{3}$ Relative precision ( $\alpha=0.05$ ).

Table 14. Estimated catch and harvest, by species and temporal component, for the sport fishery in the Agulowak River, 1988.

| Species |  | Temporal Component | Catch |  |  | Harvest |  |  | Percent Harvested |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Number | $\mathrm{SE}^{1}$ | RP ${ }^{2}$ | Number | SE ${ }^{1}$ | RP ${ }^{2}$ |  |
| Rainbow Trout |  | 1 | 1,407 | 542 | 75.5\% | 60 | 30 | $97.6 \%$ | 4.3\% |
|  |  | 2 | 1,259 | 297 | $46.3 \%$ | 12 | 8 | 135.6\% | 1.0\% |
|  | Total |  | 2,666 | 618 | 45.48 | 72 | 31 | $84.4 \%$ | $2.7 \%$ |
| Arctic <br> Char |  | 1 | 3,727 | 971 | 51.18 | 539 | 156 | $56.6 \%$ | 14.58 |
|  |  | 2 | 449 | 273 | 119.3\% | 12 | 14 | 229.8\% | 2.78 |
|  | Total |  | 4,176 | 1,009 | $47.3 \%$ | 551 | 156 | 55.6\% | 13.2\% |
| Arctic Grayling |  | 1 | 666 | 315 | 92.7\% | 22 | 13 | 20.2\% | 3.3\% |
|  |  | 2 | 642 | 164 | 50.1\% | 0 | 0 |  | $0.0 \%$ |
|  | Total |  | 1,308 | 355 | $53.2 \%$ | 22 | 13 | 20.2\% | $1.7 \%$ |
| Sockeye <br> Salmon |  | 1 | 0 | 0 |  | 0 | 0 |  | 0.0\% |
|  |  | 2 | 65 | 28 | 85.6\% | 12 | 7 | 07.1\% | 18.5\% |
|  | Total |  | 65 | 28 | 85.6\% | 12 | 7 | 07.1\% | 18.5\% |

$\frac{1}{2}$ Component 1: 6/6-7/31 and Component 2: 8/1-9/6.
2 Standard error.
3 Relative precision ( $\alpha=0.05$ ).

Creel survey results for the Agulukpak and Agulowak Rivers for the three years (1986, 1987, and 1988) are summarized in Table 15.

The demographics differ dramatically between the sport fisheries of the Agulukpak and Agulowak Rivers as shown in Figure 2. Most of the anglers interviewed fishing the Agulukpak River were guided (85.7\%) while on the Agulowak River most were nonguided (63.7\%) anglers. Residency also differed dramatically, with over $90 \%$ of the anglers fishing the Agulukpak River being nonresidents, and resident and nonresident anglers fishing Agulowak River being about evenly split. Gear preference differed between the two fisheries as well. Nearly $83 \%$ of the anglers interviewed used flies on the Agulukpak River. Flies were used by approximately one-third of the interviewed fishermen on the Agulowak River. Spin gear was the preference of most of the fishermen on the Agulowak River, but accounted for only $16 \%$ on the Agulukpak River. Bait was the least frequently used gear type being the preference of less than $1 \%$ of the anglers sampled on either river.

## Age, Sex, Weight, and Length Statistics

A total of 417 rainbow trout were sampled from the Agulukpak River during 1986, 1987, and 1988. Of these, 154 were aged and 330 were marked with numbered Floy anchor tags (Table 16). A total of 233 rainbow trout were captured using hook and line from the Agulowak River during 1988, of which 40 were tagged and 77 were aged (Table 16). Insufficient samples were collected in 1986 and 1987 to warrant detailed analysis.

The mean length of rainbow trout caught in the Agulukpak River was 418 mm $(\mathrm{n}=173, \mathrm{SE}=5.81)$ in $1986,421 \mathrm{~mm}(\mathrm{n}=184 \mathrm{~mm}, \mathrm{SE}=6.23)$ in 1987 , and 396 mm ( $\mathrm{n}=60$, $\mathrm{SE}=11.94$ ) in 1988 (Table 17). Age 5 fish were most abundant in all 3 years, accounting for $34 \%$ to $57 \%$ of fish aged. Age 4 and 6 fish were near equally represented, accounting for $11 \%$ to $20 \%$ of the fish aged. Size frequency distributions for the 3 years are presented in Figure 3.

Four and 5 year old fish were the most common age group in the samples collected from the Agulowak River in 1988 (Table 18). Mean length was estimated to be $361 \mathrm{~mm}(\mathrm{n}=233, \mathrm{SE}=3.81)$ and mean weight was 511 g ( $\mathrm{n}=48$, $\mathrm{SE}=26.44$ ). Size frequency distribution for samples collected in 1988 from the Agulowak River is presented in Figure 4.

The age compositions and mean length-at-age of the sampled trout from each river was similar. There was no significant differences ( $\alpha=0.05$ ) in the numbers of fish by age group in any of the years between the rivers with the exception of the age 4 fish during $1988\left(G^{2}=12.55, \mathrm{df}=4, \mathrm{p}=0.014\right.$ ). There was also no significant difference ( $\alpha=0.05$ ) in the mean length-at-age of the sampled trout from the two rivers (Figure 5) with the exception of the age 3 $(\Delta=82 \mathrm{~mm}, \mathrm{t}=12.46, \mathrm{df}=18)$ and age $4(\Delta=97 \mathrm{~mm}, \mathrm{t}=2.93, \mathrm{df}=300)$.

## DISCUSSION

The sport fishery in the Agulowak River is considerably more consumptive than that of the Agulukpak River. Although a relatively small proportion of the

Table 15. Catch and harvest of rainbow trout, Arctic char, Arctic grayling, and sockeye salmon from the sport fisheries in the Agulukpak and Agulowak Rivers, 1986-1988.

| Location <br> Date | Effort | Rainbow Trout |  | Arctic Char |  | Arctic | Grayling | Sockeye | Salmon |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |
|  | (Ang-Hrs) | Catch | Harvest | Catch | Harvest | Catch | Harvest | Catch | Harvest |

Agulukpak River

| $19866 / 29-8 / 22$ | 1,825 | 1,322 | 0 | 659 | 59 | 1,291 | 15 | 143 | 10 |
| ---: | :--- | :--- | :--- | :--- | ---: | ---: | ---: | ---: | ---: |
| $19876 / 17-9 / 16$ | 4,265 | 3,692 | 2 | 1,892 | 152 | 2,649 | 26 | 477 | 27 |
| $19886 / 14-9 / 16$ | 3,685 | 2,884 | 0 | 2,312 | 49 | 2,051 | 19 | 843 | 39 |

Agulowak River

| $19866 / 19-8 / 23$ | 3,732 | 1,784 | 84 | 5,151 | 1,217 | 769 | 28 | 289 | 123 |
| :--- | :--- | :--- | :--- | ---: | :--- | ---: | ---: | ---: | ---: | ---: |
| $19876 / 6-9 / 7$ | 6,397 | 2,584 | 328 | 3,717 | 660 | 616 | 15 | 60 | 31 |
| $19886 / 6-9 / 6$ | 3,582 | 2,666 | 72 | 4,176 | 551 | 1,308 | 22 | 65 | 12 |



Figure 2. Demographic information collected from anglers participating in the sport fisheries in the Agulukpak and Agulowak Rivers, 1986-1988.

Table 16. Summary of biological sampling of rainbow trout from the Agulukpak and Agulowak Rivers, 1986-1988.

|  |  | Number |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Location | Year | Sampled | Tagged | Aged |
|  |  |  |  |  |
| Agulukpak | 1986 | 173 | 94 | 7 |
|  | 1987 | 184 | 178 | 111 |
|  | 1988 | 60 | 58 | 36 |
|  | Total | 417 | 330 | 154 |
|  | 1988 | 233 | 40 | 77 |
|  |  |  |  |  |

Table 17. Mean lengths (millimeters) and weights (grams) of rainbow trout, by age group, sampled using hook and line gear from the Agulukpak River, 1986-1988.

Age Group

| Age Group |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| UNKNOWN | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | TOTAL |

1986

| Percent |  | 14.3 | 28.6 | 57.1 | 100.0 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Mean Length | 422 | 206 | 327 | 330 | 418 |
| SE ${ }^{1}$ | 5.72 |  | 47.50 | 24.49 | 5.81 |
| Sample Size | 166 | 1 | 2 | 4 | 173 |
| Mean Weight | 836 |  | 200 | 475 | 808 |
| SE | 44.18 |  |  | 85.39 | 43.24 |
| Sample Size | 71 |  | 1 | 4 | 76 |

1987

| Percent |  | 1.8 | 7.2 | 11.7 | 21.6 | 34.2 | 20.7 | 2.7 | 100.0 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Mean Length | 453 | 183 | 237 | 343 | 404 | 430 | 444 | 462 | 421 |
| $\mathrm{SE}{ }^{1}$ | 9.74 | 3.00 | 11.95 | 20.29 | 12.46 | 5.96 | 8.18 | 6.23 | 6.23 |
| Sample Size | 73 | 2 | 8 | 13 | 24 | 38 | 23 | 3 | 184 |
| Mean Weight | 1126 |  |  | 602 | 655 | 923 | 1018 | 1190 | 991 |
| SE ${ }^{1}$ | 35.07 |  |  | 88.85 | 94.41 | 33.99 | 83.81 | 65.06 | 29.73 |
| Sample Size | 35 |  |  | 5 | 7 | 19 | 11 | 3 | 80 |

1988

| Percent |  | 16.7 | 11.1 | 41.7 | 19.4 | 8.3 | 2.8 | 100.0 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Mean Length | 435 | 208 | 303 | 412 | 417 | 442 | 410 | 396 |
| SE ${ }^{2}$ | 14.79 | 18.89 | 13.38 | 16.41 | 16.38 | 33.46 |  | 11.94 |
| Sample Size | 24 | 6 | 4 | 15 | 7 | 3 | 1 | 60 |
| Mean Weight | 708 | 181 | 292 | 653 | 707 | 800 | 630 | 617 |
| SE ${ }^{1}$ | 46.97 | 20.80 | 36.54 | 59.18 | 67.22 | 177.25 |  | 34.85 |
| Sample Size | 24 | 6 | 4 | 15 | 7 | 3 | 1 | 60 |

[^0]

Figure 3. Length frequency distributions for rainbow trout sampled from the sport fishery in the Agulukpak River, 1986-1988.

Table 18. Mean lengths (millimeters) and weights (grams) of rainbow trout, by age group, sampled using hook and line gear from the Agulowak River, 1988.

|  | Age Group |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | UNKNOWN | 3 | 4 | 5 | 6 | 7 | TOTAL |
| Percent |  | 18.2 | 36.4 | 35.0 | 7.8 | 2.6 | 100.0 |
| Mean Length | 365 | 290 | 350 | 372 | 392 | 431 | 361 |
| SE ${ }^{1}$ | 4.84 | 13.19 | 8.57 | 6.07 | 17.95 | 1.50 | 3.81 |
| Sample Size | 156 | 14 | 28 | 27 | 6 | 2 | 233 |
| Mean Weight | 511 |  |  |  |  |  | 511 |
| $\mathrm{SE} E^{1}$ | 26.44 |  |  |  |  |  | 26.44 |
| Sample Size | 48 | 0 | 0 | 0 | 0 | 0 | 48 |

## 1

Standard error.


Figure 4. Length frequency distribution of rainbow trout sampled from the sport fishery in the Agulowak River, 1988.


Figure 5. Mean length and $95 \%$ confidence intervals for rainbow trout, by age group, sampled from the Agulukpak and Agulowak Rivers.
fishes caught in either river were retained, anglers fishing the Agulowak River had a greater tendency to keep fish for eating than did anglers fishing the Agulukpak River.

Rainbow trout first recruit into the fishery (are large enough to be captured using sport fishing gear) in considerable numbers at age 3 (Figure 6), when they average approximately 300 mm in length. In the Agulukpak River, rainbow trout are fully recruited to the fishery at age 5 . However, age 4 and age 5 fish contributed equally to the samples of the catchable population from the Agulowak River suggesting either a weak 1983 brood year (age 5 fish) or, more likely, given the consumptive nature of the Agulowak fishery, is indicative of overharvest of the larger older age fish in the Agulowak River.


Figure 6. Percent, by age group, of rainbow trout sampled from the Agulukpak and Agulowak Rivers, 1988.

## LITERATURE CITED

ADF\&G. 1986. 1986 Alaska sport fishing regulations summary. Alaska Department of Fish and Game, Juneau, Alaska. 32 pp.
$\qquad$ . 1987. 1987 Alaska sport fishing regulations summary. Alaska Department of Fish and Game, Juneau, Alaska. 32 pp.
__ 1988. 1988 Alaska sport fishing regulations summary. Alaska Department of Fish and Game, Juneau, Alaska. 56 pp.

Clutter, R. I. and L. E. Whitesel. 1956. Collection and interpretation of sockeye salmon scales. Bull. Int. Pac. Salmon Fish. Comm., No. 9. 159 pp.

DiConstanzo, C. J. 1956. Creel census techniques and harvest of fishes in Clear Lake, Iowa. Ph.D. dissertation, Iowa State College, Ames, Iowa. 130 pp.

Goodman, L. A. 1960. On the exact variance of products. J. Am. Stat. Ass. 55:708-713.

Jessen, R. J. 1978. Statistical survey techniques. John Wiley and Sons, New York, New York. 520 pp.

Neuhold, J. M. and K. H. Lu. 1957. Creel census method. Utah State Department Fish Game Publ. 8, Salt Lake City, Utah. 36 pp.

Schaeffer, R. L., W. Mendenhall, and L. Ott. 1979. Elementary survey sampling. Duxbury Press, North Scituate, Mass. 278 pp.

APPENDIX

Appendix Table 1. Angler counts for the sport fishery in the Agulukpak River, 1986.


1/ Wd = Weekday; We = Weekend or holiday.
2/ Period A (0600-0859); B (0900-1159); C (1200-1459); D (1500-1759);
E (1800-2100).

Appendix Table 2. Anglex counts for the sport fishery in the Agulowak River, 1986.

| Period 21 |  |  |  |  |  |  |  | Period 21 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Date Wd/We 1 |  | A | B | c | D | E | Date | $1 /$ | A | B | c | D | E |
| 06/19 | Wd | 0 |  |  |  |  | 07/24 | Wd |  |  |  |  |  |
| 06/20 | We |  |  |  |  |  | 07125 | We |  |  | 1 | 0 |  |
| 06/21 | We | 0 | 0 |  |  |  | 07/26 | We |  | 0 | 3 | 18 |  |
| 06/22 | Wd |  |  |  | 0 |  | $07 / 27$ | Wd |  | 2 | 16 |  |  |
| 06/23 | Wd |  | 2 | 5 |  |  | 07/28 | Wd |  | 3 | 3 | 1 |  |
| 06/24 | Wd |  | 2 |  | 16 |  | 07/29 | Wd |  |  |  |  |  |
| 06/25 | Wd |  |  |  |  |  | 07/30 | Wd |  |  | 8 |  | 3 |
| 06/26 | Wd |  |  |  |  |  | 07/31 |  | 0 | 3 |  |  |  |
| 06/27 | We |  |  |  |  |  | 08/01 | We |  |  |  |  |  |
| 06/28 | We |  |  | 5 | 8 |  | 08/02 | We |  |  |  |  | 3 |
| 06/29 | Wd |  | 0 |  |  |  | 08/03 | Wd |  | 0 | 3 |  |  |
| 06/30 | Wd |  |  |  |  |  | 08/04 | Wd |  | 2 |  | 5 |  |
| 07/01 | Wd |  |  |  |  |  | 08/05 | Wd |  | 7 | 6 |  |  |
| 07/02 | Wd |  |  |  |  |  | 08/06 | Wd |  |  |  |  |  |
| 07/03 | Wd |  | 1 | 0 |  |  | 08/07 | Wd |  |  |  |  |  |
| 07104 | We |  | 4 | 4 |  |  | 08/08 | We |  |  | 2 | 3 |  |
| 07105 | We |  | 4 |  | 6 |  | 08/09 | We |  | 0 | 2 |  |  |
| 07106 | Wd |  | 2 |  | 2 |  | 08/10 | Wd |  | 5 |  | 9 5 |  |
| 07107 | Wd | 1 | 0 |  |  |  | 08/11 | Wd |  | 1 |  | 5 |  |
| 07108 | Wd |  |  | 4 |  |  | 08/12 | Wd |  |  |  |  |  |
| 07109 | Wd |  |  |  |  |  | 08/13 | Wd | 0 |  |  | 0 |  |
| 07/10 | Wd |  | 2 | 6 |  |  | 08/14 | Wd |  |  |  |  |  |
| 07/11 | We |  | 0 |  | 9 |  | 08/15 | We |  |  |  |  |  |
| 07/12 | We | 0 | 0 |  |  |  | 08/16 | We | 3 | 0 |  |  |  |
| 07/13 | Wd |  |  |  | 15 |  | 08/17 | Wd | 0 |  | 0 |  |  |
| 07/14 | Wd |  |  |  |  |  | 08/18 | Wd | 9 |  |  | 1 |  |
| 07/15 | Wd |  |  |  |  |  | 08/19 | Wd |  |  |  |  |  |
| 07/16 | Wd |  |  | 0 | 0 |  | 08/20 | Wd | 3 |  |  | 0 |  |
| 07/17 | Wd |  | 0 | 6 |  |  | 08/21 | Wd | 0 | 3 |  |  |  |
| 07/18 | We |  |  |  |  |  | 08/22 | We | 6 | 6 |  |  |  |
| 07/19 | We | 1 |  |  |  | 9 | 08/23 | We | 0 |  | 13 |  |  |
| 07/20 | Wd |  | 20 | 14 |  |  |  |  |  |  |  |  |  |
| 07/21 | Wd |  |  |  |  |  |  |  |  |  |  |  |  |
| 07/22 | Wd |  |  | 0 | 0 |  |  |  |  |  |  |  |  |
| 07/23 | Wd |  |  |  |  |  |  |  |  |  |  |  |  |

1/ Wd = Weekday; We = Weekend or holiday
2/ From 6/19 - 7/12: Period A (0600-0859); B (0900-1159); C (1200-1459); D (1500-2059).
From 7/13-8/11: Period A (0600-0859); B (0900-1159); C (1200-1459); D (1500-1759); E (1800-2100).
From 8/13-8/23: Period A (0600-1159); B (1200-1459); C (1500-1759); D (1800-2100).

Appendix Table 3. Angler counts for the sport fishery in the Agulowak River, 1987.

| Period 21 |  |  |  |  |  |  |  | Period 21 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Date | Wd/We $1 /$ | A | B | c | D | Date | Wd/We $1 /$ | A | B | C | D |
| 06/06 | We |  |  |  | 6 | 07/25 | We |  |  | 8 | 10 |
| 06/07 | We | 3 | 5 |  |  | 07/26 | We | 6 | 16 |  |  |
| 06/08 | Wd |  |  |  |  | 07/27 | Wd |  |  |  |  |
| 06109 | Wd | 2 |  | 2 |  | 07/28 | Wd | 6 |  |  | 5 |
| 06/10 | Wd |  | 0 |  | 3 | 07/29 | Wd |  |  |  |  |
| 06/11 | Wd | 1 |  | 1 |  | 07/30 | Wd |  |  |  |  |
| 06/12 | Wd |  | 0 |  | 6 | 07/31 | Wd |  | 6 | 3 |  |
| 06/13 | We | 1 | 3 |  |  | 08/01 | W. |  | 9 |  | 11 |
| 06/14 | We |  | 1 |  | 3 | 08/02 | We | 0 | 4 |  |  |
| 06/15 | Wd |  |  | 0 | 0 | 08/03 | Wd |  |  |  |  |
| 06/16 | Wd |  |  |  |  | 08/04 | Wd | 2 |  | 2 |  |
| 06/17 | Wd |  | 3 |  | 1 | 08/05 | Wd |  | 0 |  |  |
| 06/18 | Wd | 2 |  | 0 |  | 08/06 | Wd | 7 |  | 4 |  |
| 06/19 | Wd |  | 2 | 7 |  | 08/07 | Wd |  | 2 |  | 0 |
| 06/20 | We | 0 |  | 0 |  | 08/08 | We | 7 | 4 |  |  |
| 06/21 | We |  |  | 4 | 0 | 08/09 | We |  |  |  |  |
| 06/22 | Wd |  |  |  |  | 08/10 | Wd |  |  |  |  |
| 06/23 | Wd |  |  |  |  | 08/11 | Wd |  |  |  |  |
| 06/24 | Wd |  | 5 | 5 |  | 08/12 | Wd |  |  | 2 | 1 |
| 06/25 | Wd |  |  | 6 | 13 | 08/13 | Wd | 5 |  | 0 |  |
| 06/26 | Wd |  |  |  |  | 08/14 | Wd |  | 11 |  | 3 |
| 06/27 | We |  |  | 5 | 15 | 08/15 | We |  | 5 |  |  |
| 06/28 | We |  |  | 0 | 4 | 08/16 | We | 3 | 4 |  |  |
| 06/29 | Wd |  |  |  |  | 08/17 | Wd | 0 | 6 |  |  |
| 06/30 | Wd |  |  |  |  | 08/18 | Wd |  |  |  |  |
| 07/01 | Wd |  |  |  |  | 08/19 | Wd | 8 |  | 8 |  |
| 07/02 | Wd |  |  |  |  | 08/20 | Wd |  | 13 |  |  |
| 07/03 | Wd |  | 4 | 4 |  | 08/21 | Wd | 8 |  |  |  |
| 07104 |  |  |  |  |  |  |  |  |  | 18 |  |
| 07105 | We |  | 6 | 8 |  | 08/23 | We | 6 |  |  |  |
| 07106 | Wd |  |  |  |  | 08/24 | Wd | 3 |  | 0 |  |
| 07107 | Wd | 5 |  | 1 |  | 08/25 | Wd |  |  | 0 |  |
| 07/08 | Wd |  | 6 |  | 10 | 08/26 | Wd |  |  |  |  |
| 07/09 | Wd | 3 |  |  |  | $08 / 27$ | Wd |  | 1 |  |  |
| 07/10 | Wd |  | 8 |  |  | 08/28 | Wd | 6 |  |  |  |
| 07/11 | We | 6 | 8 |  |  | 08/29 | We |  | 20 | 3 |  |
| 07/12 | We | 10 |  | 11 |  | 08/30 | We | 5 |  | 4 |  |
| 07/13 | Wd |  |  | 0 | 6 | 08/31 | Wd |  |  | 0 |  |
| 07/14 | Wd |  |  |  |  | 09/01 | Wd |  |  |  |  |
| 07/15 | Wd |  | 12 |  | 5 | 09102 | Wd |  |  |  |  |
| 07/16 | Wd | 1 |  | 5 |  | 09103 | Wd |  | 7 | 0 |  |
| 07/17 | Wd |  | 5 | 5 |  | 09/04 | Wd |  |  |  |  |
| $\begin{aligned} & 07118 \\ & 07 / 19 \end{aligned}$ | We We | 5 |  | 0 6 | 2 | $09 / 05$ $09 / 06$ | We We |  |  | 1 |  |
| 07/20 | Wd |  |  |  |  | 09/07 | Wd | 4 |  |  |  |
| 07/21 | Wd |  |  |  |  |  |  |  |  |  |  |
| 07/22 | Wd |  | 0 | 0 |  |  |  |  |  |  |  |
| 07/23 | Wd |  |  | 9 | 2 |  |  |  |  |  |  |
| 07/24 | Wd |  |  |  |  |  |  |  |  |  |  |

1/ Wd = Weekday; We Weekend or holiday.
2/ Period A (0800-1159); Period B (1200-1559); Period C (1600-1959); Period D (2000-2400).

Appendix Table 4. Angler counts for the sport fishery in the Agulowak River, 1988.

( Wd - Weekdayi We - Weekend or holiday.
21 Period A (0900-1059); Period E (1100-1259): Parlod C (1200-1459);

Appendix Table 5. Sumary of dally angler effort (angler-hours) and catch ratas (cpue, fish per angler-hour) for ralnbow trout, Arctic char, Arctic arayling, and sockeje

|  | Wdihe | Sample | Effort |  | Rainbow Trout |  |  | Arctic Char |  |  | Arctic Grayling |  |  | Sockeye Salmon |  |  | Coho Salmon |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Date | 11 | Slze | Mean | Std Err | Mean | Std Err | CPUE | Mean | Std Err | CPUE | Hean | Std Err | CPUE | Man | Std Err | cpue | Hean | Std Err | cPuE |
| 7101 | Wd | 3 | 7.500 | 0.000 | 4.670 | 1.764 | 0.622 | 18.670 | 1.856 | 2.489 | 4.670 | 2.906 | 0.622 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 7103 | He | 7 | 2.400 | 0.010 | 0.000 | 0.000 | 0.000 | 8.000 | 4.914 | 3.290 | 0.570 | 0.571 | 0.235 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 7104 | He | 11 | 1.700 | 0.510 | 0.000 | 0.000 | 0.000 | 1.180 | 0.352 | 0.684 | 0.270 | 0.195 | 0.158 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 7106 | Wd | 12 | 2.300 | 0.610 | 0.170 | 0.112 | 0.073 | 2.000 | 0.590 | 0.873 | 0.920 | 0.452 | 0.400 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 7108 | Hd | 4 | 2.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.250 | 0.250 | 0.125 | 0.500 | 0.500 | 0.250 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 7110 | Wd | ${ }^{6}$ | 2.500 | 0.340 | 0.170 | 0.167 | 0.067 | 1.500 | 0.764 | 0.600 | 0.000 | 0.000 | 0.000 | 0.170 | 0.167 | 0.067 | 0.000 | 0.000 | 0.000 |
| 7111 | He | 10 | 2.700 | 0.680 | 0.700 | 0.423 | 0.259 | 1.000 | 0.422 | 0.370 | 1.400 | 0.702 | 0.519 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| $7 / 13$ | Hd | 2 | 5.500 | 0.000 | 9. 500 | 0.500 | 1.727 | 1.500 | 1.500 | 0.273 | 7.000 | 4.000 | 1.273 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 7116 | Wd | 9 | 1.400 | 0.310 | 1. 330 | 0.577 | 0.960 | 0.560 | 0.176 | 0.400 | 1.360 | 0.709 | 1.120 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 7117 | Hd | 14 | 2.100 | 0.360 | 0.500 | 0.203 | 0.237 | 0.290 | 0.163 | 0.136 | 0.640 | 0. 308 | 0.305 | 0.070 | 0.071 | 0.034 | 0.000 | 0.000 | 0.000 |
| 7120 $7 / 22$ | Hd <br> Hd | 8 | 1.900 3.600 | 0.080 | 0.630 1.830 | 0.698 0.601 | O. 0.315 | 0.130 | 0.125 | 0.065 | 0.130 | 0.125 | 0.065 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 7/25 | We | 12 | 3.600 $\mathbf{5 . 8 0 0}$ | 0.740 0.650 | 1.830 1.420 | 0.601 0.417 | 0.315 0.243 | 0.170 0.330 | 0.167 0.188 | 0.047 0.057 | 0.000 7.250 | 0.000 2.346 | 0.000 1.243 | 1.500 0.000 | 1.084 | 0.422 0.000 | 0.000 | 0.000 | 0.000 |
| 7127 | Wd | 8 | 1.400 | 0.260 | 0.130 | 0.125 | 0.091 | 0.130 | 0.125 | 0.091 | 0.000 | 2.346 0.000 | 1.243 0.000 | 0.130 | 0.125 | 0.091 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 |
| 7128 | wd | 16 | 4.700 | 0.650 | 4.880 | 1.796 | 1.037 | 0.000 | 0.000 | 0.000 | 7.750 | 1.870 | 1.648 | 0.060 | 0.063 | 0.013 | 0.000 | 0.000 | 0.000 |
| 7129 | Wd | 8 | 6.100 | 0.320 | 6. 380 | 0.844 | 1.037 | 0.000 | 0.000 | 0.000 | 4.000 | 1.000 | 0.651 | 0.250 | 0.164 | 0.041 | 0.000 | 0.000 | 0.000 |
| $1 / 30$ | Wd | 9 | 4. 400 | 0.580 | 4.220 | 1. 362 | 0.958 | 0.330 | 0.236 | 0.076 | 4.890 | 2.098 | 1.109 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 7131 | Wd | 17 | 3.900 | 0.660 | 4.590 | 1. 709 | 1.182 | 0.590 | 0.243 | 0.152 | 4.240 | 1.684 | 1.091 | 0.350 | 0.191 | 0.091 | 0.000 | 0.000 | 0.000 |
| 8/02 | We | 19 | 5.600 | 0.360 | 3. 890 | 1. 291 | 0.697 | 0.370 | 0.191 | 0.066 | 7.000 | 1.929 | 1.253 | 0.110 | 0.072 | 0.019 | 0.000 | 0.000 | 0.000 |
| 8/03 | Wd | 11 | 1. 900 | 0.280 | 1.090 | 0.285 | 0.571 | 0.000 | 0.000 | 0.000 | 2.270 | 1.071 | 1.190 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 8104 | Wd | 4 | 3. 200 | 0.000 | 4.750 | 1.031 | 0.919 | 0.500 | 0.500 | 0.097 | 7.250 | 3.198 | 1.402 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 8108 | We | 19 | 3.600 4.200 | 0.610 | 3.050 | 0.807 | 0.851 | 0.740 | 0.263 | 0.205 | 4.370 | 1.447 | 1.218 | 0.000 | 0.000 | 0.000 | 0.160 | 0.115 | 0.044 |
| $8 / 09$ | We | 6 | 1.400 | 0.140 | 0. 330 | 0.333 | 0.230 | 1.120 | O.410 | 0.269 0.576 | 3.290 0.000 | 1.017 0.000 | 0.792 0.000 | 0.240 | 0.161 | 0.057 | 0.000 | 0.000 | 0.000 |
| 8/10 | Wd | 10 | 5.400 | 0.450 | 4.400 | 1.536 | 0.815 | 2.000 | 0.856 | 0.370 | 1.200 | 0.611 | 0.222 | 0.800 | 0.467 | 0.922 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 |
| 8/11 | Wd | 10 | 5.800 | 0.250 | 1.000 | 0.394 | 0.174 | 0.500 | 0.307 | 0.087 | 2.900 | 1.386 | 0.504 | 1.8000 | 0.632 | 0.148 | 0.000 | 0.000 0.000 | 0.000 0.000 |
| $8 / 13$ | wd | 6 | 8.300 | 0.070 | 5.830 | 3.544 | 0.705 | 1.170 | 0.601 | 0.141 | 2.670 | 1.202 | 0.322 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| $8 / 14$ | Hd | 12 | 3.400 | 0.850 | 7.920 | 1.769 | 2.356 | 6.170 | 1.930 | 1.835 | 1.920 | 0.783 | 0.370 | 0.500 | 0.417 | 0.149 | 0.000 | 0.000 | 0.000 |
| $8 / 17$ | Hd | 21 | 4.300 4500 | 0.560 | 3.430 3.500 | 0.555 | 0.791 | 2.380 | 0.537 | 0.349 | 0.900 | 0.337 | 0.209 | 0.190 | 0.112 | 0.044 | 0.000 | 0.000 | 0.000 |
| $8 / 18$ $8 / 20$ | Wd | 8 | 4.500 | 1.040 | 3.500 | 1.225 | 0.718 | 0.750 | 0.250 | 0.167 | 0.750 | 0.412 | 0.167 | 0.750 | 0.412 | 0.167 | 0.000 | 0.000 | 0.000 |
| $8 / 20$ $8 / 21$ | Wd | 8 | 4.000 | 2.120 | 4.380 | 1.880 | 1.083 | 3.500 | 1.336 | 0.866 | 0.130 | 0.125 | 0.031 | 0.880 | 0.398 | 0.217 | 0.000 | 0.000 | 0.000 |
| $8 / 22$ | We |  | 2.500 | 1.170 0.000 | 1.750 | 0.802 0.479 | 0.337 0.300 | 1.250 0.250 | 0.840 0.250 | 0.448 0.100 | 0.630 0.000 | 0.324 0.000 | 0.224 0.000 | 1.500 0.250 | 0.719 0.250 | 0.537 0.100 | 0.000 0.000 | 0.000 0.000 | 0.000 |

1) Wd - Weekday; We - Weekend or holldey
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Appendix Table 6. Sumary of dally angler offort (angler-hourg) and harvaat ratea (upuE, flah per anglar-hour) for ralnbow trout, Arctic char, Arctic trayling, and sockeye
and coho saleon from angiler intervievs in the Asulukpak aiver aport fishery. 1986
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|  |  |  | Effort |  | Ralnbow Trout |  |  | Axctic Chax |  |  | Arctic Graylins |  |  | Sockeye salmon |  |  | Coho Salcon |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Date | $\begin{aligned} & \mathrm{Wd} / \mathrm{We} \\ & \text { I/ } \end{aligned}$ | Sample Size | Mean | Std Ext | Mean | Std Err | hpus | Mean | std Ext | hpue | Kean | std Ext | apus | Mean | Ed $\mathbf{E x}$ | HPUE | Mean | 8td Erx | ypue |
| $7 / 01$ | Wd | 3 | 7.500 | 0.000 | 0.000 | 0.000 | 0.000 | 1.330 | 0.667 | 0.178 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 7103 | We | 7 | 2.400 | 0.010 | 0.000 | 0.000 | 0.000 | 0.660 | 0.404 | 0.353 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 7104 | We | 11 | 1.700 | 0.510 | 0.000 | 0.000 | 0.000 | 0.180 | 0.122 | 0.105 | 0.090 | 0.091 | 0.053 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 7106 | Wd | 12 | 2.300 | 0.610 | 0.000 | 0.000 | 0.000 | 0.580 | 0.193 | 0.255 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 3108 | Wd | 4 | 2.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 7110 | Wd | 6 | 2.500 | 0.340 | 0.000 | 0.000 | 0.000 | 0.170 | 0.167 | 0.067 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| $1 / 11$ | We | 10 | 2.700 | 0.680 | 0.000 | 0.000 | 0.000 | 0.400 | 0.221 | $0.14{ }^{4}$ | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 7/13 | Wd | 2 | 5.500 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.500 | 0.500 | 0.091 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 7/16 | $\underline{ }$ | - | 1.400 | 0.310 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 7117 | ud | 14 | 2.100 | 0.360 | 0.000 | 0.000 | 0.000 | 0.070 | 0.071 | 0.034 | 0.140 | 0.097 | 0.068 | 0.070 | 0.071 | 0.034 | 0.000 | 0.000 | 0.000 |
| $1 / 20$ | ${ }^{4}$ | 8 | 1.900 | 0.080 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 7/22 | Md | 12 | 3.600 | 0.740 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 7125 | He | 12 | 5.800 | 0.650 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 7127 | Wd | 8 | 1.400 | 0.260 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 | 0.130 0.060 | 0.125 0.063 | 0.091 | 0.000 | 0.000 0.000 | 0.000 0.000 |
| $7 / 29$ $1 / 30$ | ${ }_{\text {Wd }}$ | 9 | 4.600 | 0.380 | 0.000 | 0.000 | 0.000 | 0.110 | 0.111 | 0.025 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1/31 | Wd | 17 | 3.900 | 0.660 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.240 | 0.161 | 0.061 | 0.000 | 0.000 | 0.000 |
| 8102 | We | 19 | 5.600 | 0.360 | 0.000 | 0.000 | 0.000 | 0.110 | 0.105 | 0.019 | 0.160 | 0.158 | 0.028 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 8103 | Hd | 11 | 1.900 | 0.280 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.270 | 0.273 | 0.143 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 8104 | Hd | 4 | 3.200 | 0.000 | 0.000 | 0.000 | 0.000 | 0.300 | 0.500 | 0.097 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 8105 | Wd | 19 | 3.600 | 0.610 | 0.000 | 0.000 | 0.000 | 0.210 | 0.123 | 0.059 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 8108 | He | 17 | 4.200 | 0.530 | 0.000 | 0.000 | 0.000 | 0.160 | 0.128 | 0.042 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 8109 | He | 6 | 1.400 | 0.140 | 0.000 | 0.000 | 0.000 | 0.170 | 0.167 | 0.115 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| $8 / 10$ | Hd | 10 | 3. 400 | 0.450 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| $8 / 11$ | Wd | 10 | 5. 000 | 0.250 | 0.000 | 0.000 | 0.000 | 0.100 | 0.100 | 0.017 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 8113 | ${ }_{4 d}$ | 12 | e. 300 3.400 | 0.070 0.850 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 |
| 8114 | Hd | 12 | 3.400 | 0.850 0.560 | 0.000 0.000 | 0.000 0.000 | 0.000 | -0.050 | 0.048 | 0.011 |  |  |  |  | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 0.000 |
| 8117 | Wd | 21 | 4.300 4.500 | 0.560 1.040 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 0.000 |
| \%/120 | ud | - | 4.000 | 1.120 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 8121 | wd | s | 2.800 | 1.170 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 8122 | We | 4 | 2.500 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | . 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

He = Heekend or holldey

Appendix Table 7. Sumary of daily angler offort (angler-hours) and catch rates (Cpug, fieh per angler-hour) for ralinbow crout, Arctic char, Arctic siayling, sockeye saleon,
and Morthern pike from angler interviewa in the Agulukpak River aport fishery, 19e7.

|  |  |  | Effort |  | Ralnbow Trout |  |  | Aretic Char |  |  | Arctic Grayling |  |  | Sockeye Salmon |  |  | Morthern Pike |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Date | Wd/we | $\begin{aligned} & \text { Sasple } \\ & \text { size } \end{aligned}$ | Mean | Std Err | Mean | Std Err | CPUE | Mean | std Err | crut | Moas | Std Erz | cpus | Mean | Std $\mathbf{I t r}$ | cpus | Mean | fud Ert | cpus |
| $6 / 17$ | Wd | 2 | 4. 300 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 5.500 | 3.500 | 1.294 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| $6 / 19$ | Wd | 4 | 3.500 | 0.000 | 0.250 | 0.250 | 0.071 | 1.500 | 0.957 | 0.429 | 0.000 | 0.000 | 0.000 |  |  |  |  |  |  |
| $6 / 21$ | We | 2 | 1.300 | 0.000 | 0.500 | 0.500 | 0.400 | 0.000 | 0.000 | 0.000 | 2.000 | 2.000 | 1.600 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 0.000 |
| $6 / 22$ | Wd | 7 | 5.000 | 0.650 | 0.430 | 0.202 | 0.086 | 5.710 | 2.697 | 1.143 | 4.140 11.330 | 1.779 | 0.629 1.619 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 |
| $6 / 24$ | Wd | 3 | 7.000 | 0.000 | 2.000 | 0.377 | 0.286 | 0.670 | 0.133 | 0.093 | 11.150 2.000 | 1.225 | 0.500 | 0.000 | 0.000 | 0.000 | 0.750 | 0.750 | 0.120 |
| $6 / 25$ | ${ }^{\boldsymbol{M}}$ | 4 | 4.000 | 0.000 | 0.000 | 0.000 | 0.000 | 6.750 2.800 | 3.530 | 0.824 | 2.000 0.000 | 1.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| $6 / 26$ | Hd | 5 | 3.400 5.100 | 0.460 0.070 | 0.400 0.000 | 0.245 0.000 | 0.000 | 0.250 | 0.250 | 0.049 | 3.250 | 1.601 | 0.634 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 71101 | Wd | 7 | 4.100 | 0.550 | 0.140 | 0.143 | 0.036 | 0.140 | 0.143 | 0.034 | 1.430 | 0.751 | 0.345 | 0.140 | 0.143 | 0.034 | 0.000 | 0.000 | 0.000 |
| 7102 | ud | 3 | 3.800 | 0.000 | 2.330 | 1.453 | 0.622 | 7.000 | 2.517 | 1.367 | 1.000 | 0.577 | 0.267 | 0.000 | 0.000 | 0.00 | 0.000 | 0.000 | 0.000 |
| 7103 | We | 10 | 5.800 | 0.640 | 2.200 | 0.696 | 0.363 | 3.100 | 1.847 | 0.539 | . 0000 | 2.256 | 1.391 | 0.000 | 0.000 | 0.000 | . 000 | . 0.000 | 0.122 |
| 7104 | He | 4 | 1.700 | 0.170 | 1.000 | 1.000 | 0.600 | 0.250 | 0.250 | 0.150 | 0. 3190 | 2.000 | 1.000 | 0.000 | 0.000 | 0.000 | 1.330 | 0.569 | 0.000 |
| 7105 | He | 12 | 6.300 | 0.810 | 1.170 | 0.461 | 0.184 | 2.750 | 1.115 | 0.276 | 6.350 2.250 | 2.539 0.906 | 0.581 | 0.000 | 0.000 | 0.000 | 0.500 | 0.359 | 0.129 |
| 7107 | Wd | 12 | 3.900 | 0.360 | 0.250 | 0.131 | 0.065 | 2.330 1.000 | O. 408 | 0.602 0.143 | 2.250 | 2.000 | 0.371 | 0.250 | 0.250 | 0.036 | 0.000 | 0.000 | 0.000 |
| 7108 | Wd | 7 | 7.000 | 0.380 0.720 | 1.500 3.710 | 0.957 0.286 | 0.214 0.839 | 2.710 | 1.700 | 1.290 | 1.430 | 0.841 | 0.323 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 7109 | Md | 13 | 4.400 4.600 | 0.720 0.490 | 2.080 | 0.525 | 0.650 | 14.000 | 4.692 | 3.033 | 0.850 | 0.436 | 0.183 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 7111 | We | 4 | 0.800 | 0.120 | 0.250 | 0.250 | 0.308 | 0.500 | 0.500 | 0.615 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| $7 / 12$ | We | 3 | 4.500 | 1.000 | 0.330 | 0.333 | 0.074 | 4.670 | 2.667 | 1.037 | 0.000 | 0.000 | 0.000 | 2.330 0.050 | 1.856 | 0.519 0.010 | 0.000 | 0.000 | O. 0000 |
| 7113 | Wd | 0 | 4.000 | 0.400 | 1.400 | 0.396 | 0.289 | 7.900 | 2.458 0.250 | 1.629 | 1. 250 | O. 500 | 0.167 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 7114 | Wd | 4 | 3.000 | 0.000 | 10.000 | 2.708 | 0.333 0.211 | $\begin{array}{r}\text { 20.000 } \\ \\ \hline 8.250\end{array}$ | 9. 462 | 5.895 | 0.670 | 0.494 | 0.140 | 0.170 | 0.167 | 0.035 | 0.000 | 0.000 | 0.000 |
| 7115 | Hd | 5 | 4.800 | 0.440 0.360 | 1.000 0.530 | 0.816 0.274 | 0.211 | 28.000 0.600 | 9.362 | 0.310 | 0.200 | 0.200 | 0.106 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 7116 | Wd | 15 | 1.900 2.700 | 0.390 | 0.430 | 0.173 | 0.158 | 0.570 | 0.251 | 0.211 | 0.290 | 0.125 | 0.105 | 0.500 | 0.272 | 0.118 | 0.000 | 0.000 | 0.000 |
| 7118 | We | 5 | 2.900 | 0.900 | 0.600 | 0.600 | 0.207 | 0.600 | 0.800 | 0.276 | 0.200 | 0.200 | 0.069 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 7119 | He | * | 4.600 | 0.560 | 1.000 | 0.732 | 0.216 | 1.380 0.560 | 1.017 | 0.297 | 10.000 6.780 | 4.456 3.519 | 2.162 1.794 | 0.130 0.110 | 0.125 | 0.027 0.029 | 0.000 0.000 | 0.000 0.000 | 0.000 |
| 7120 | ${ }_{\text {Hd }}$ | ? | 3.000 4.400 | 0.940 0.180 | 0.460 3.440 | 0.242 1.355 | 0.1175 | 1.360 1.220 | 0.294 | 0.275 | 4.670 | 3.225 | 1.050 | 0.110 | 0.111 | 0.025 | 0.000 | 0.000 | 0.000 |
| 7121 | Md | 9 | 4.400 4.900 | O.440 | 3.225 | 1.358 0.620 | 0.256 | 4.500 | 0.655 | 0.923 | 1.000 | 0.661 | 0.205 | 0.180 | 0.295 | 0.178 | 0.000 | 0.000 | 0.000 |
| 7/22 | Wd | ${ }^{3}$ | 6.900 6.000 | 0.320 | 1.560 | 0.398 | 0.260 | B. 300 | 2.208 | 1.417 | 1.250 | 2.069 | 1.208 | 0.310 | 0.176 | 0.052 | 0.000 | 0.000 | 0.000 |
| 7124 | Ud | 11 | 5.700 | 0.330 | 3.550 | 1.423 | 0.619 | 0.000 | 0.000 | 0.000 | \$.640 | 3.581 | 1.508 | 0.640 | 0.754 | 0.111 | 0.000 | 0.000 | 0.000 |
| 7125 | W。 | 4 | 5.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.250 | 0.250 | 0.050 | 0.250 | 0.250 | 0.050 | 1.750 | 0.750 | 0. 350 | 0.000 | 0.000 | 0.000 |
| 7126 | He | 8 | 6.000 | 0.000 | 4.750 | 2.284 | 0.792 | 7.500 | 3.059 | 1.250 0.000 | 6.000 6.500 | 2.171 0.500 | 0.697 0.929 | 0.030 | 0.000 0.654 | 0.119 | 0.000 | 0.000 | 0.000 0.000 |
| 7127 | Wd | 6 | 7.000 | 0. 0.900 | 6. 6.220 | 2. 2807 | 1.068 | 1.000 | 0.601 | 0.205 | 6.440 | 3.805 | 1.318 | 0.110 | 0.111 | 0.023 | 0.000 | 0.000 | 0.000 |
| 7128 $7 / 29$ | md | 9 | 4.900 6.500 | 0.900 0.660 | 11.830 | 4.377 | 1.821 | 0.000 | 0.000 | 0.000 | 7.330 | 4.232 | 1.128 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 7129 $7 / 30$ | ${ }_{\text {ud }}$ | 6 | 4.000 | 0.970 | 5.500 | 3.964 | 1.375 | 0.000 | 0.000 | 0.000 | 5.170 | 3.371 | 1.292 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 7131 | Wd | 11 | 6.600 | 0.150 | 5.180 | 1.548 | 0.781 | 0.000 | 0.000 | 0.000 | 5.910 | 1.890 | 0.990 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| $8 / 01$ | We | 6 | 4.500 | 0.670 | 0.330 | 0.333 | 0.074 | 0.500 | 0.342 | 0.111 | 0.000 | 0.000 | 0.000 | 0.000 | . 0.000 | 0.000 | . 000 | . 000 | 0.000 |
| $8 / 02$ | We | 12 | 6.900 | 0.190 | 4.670 |  | 0.675 | 3.250 | 1.548 | 0.478 | 2.670 1.500 | ${ }_{0} .1619$ | 0.320 | 0.000 0.000 | 0.000 |  |  | 0.000 | 0.000 0.000 |
| $8 / 03$ | Wd | 6 | 6.800 | 0.170 | 2.830 | 0.872 | 0.415 | 1.670 | 1.174 | 0.244 | 1.500 2.640 | 1.073 | 0.220 0.460 | 0.090 | 0.091 | 0.016 | 0.000 | 0.000 | 0.000 |
| $8 / 04$ | Ud | 11 | 5.600 | 0.340 | 4.640 | 1.718 | 0.123 | 0.730 | 0.333 | 0.128 |  |  |  |  |  |  |  |  |  |

Appendix Table 7. Sumary of dally angler effort (angler-houra) and catch rates (Cpue, fish per angler-hour) for rainbov trout, Arctic char, Arctic erayling, sockeye salmon,

|  |  |  | Effort |  | Ralnbov Trout |  |  | Areric Char |  |  | Arctic Grajling |  |  | Sockeye salmon |  |  | Morthern Pike |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Data | 1/We | $\begin{aligned} & \text { Sample } \\ & \text { Sise } \end{aligned}$ | Maen | Std Err | Mean | Std Err | CPUE | Hean | Std Err | CPUE | Mean | Std Err | CPUE | Mean | Std Ex | CPUE | Mean | std Ers | CPUE |
| $8 / 05$ | Wd | 5 | 3.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 3.800 | 0.735 | 1.267 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 8106 | Wd | 9 | 7.300 | 0.410 | 1.670 | 0.408 | 0.227 | 0.220 | 0.222 | 0.030 | 9.000 | 2.186 | 1.227 | 0.560 | 0.377 | 0.076 | 0.000 | 0.000 | 0.000 |
| 8107 | wd | , | 7.000 | 0.000 | 11.500 | 0.500 | 1.643 | 0.000 | 0.000 | 0.000 | 12.000 | 6.819 | 1.114 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 8108 | We | 2 | 7.000 | 0.000 | 12.500 | 2.500 | 1.786 | 0.000 | 0.000 | 0.000 | 1.000 | 1.000 | 0.143 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| $8 / 09$ | We | 14 | 6.700 | 0.300 | 4.290 | 0.848 | 0.638 | 0.140 | 0.143 | 0.021 | 5.290 | 1.360 | 0.787 | 0.570 | 0.291 | 0.085 | 0.000 | 0.000 | 0.000 |
| 8110 | Wd | 6 | 7.000 | 0.630 | 4.000 | 1.291 | 0.571 | 0.330 | 0.333 | 0.048 | 7.500 | 2.837 | 1.071 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| $8 / 11$ | Wd | 7 | 7.600 | 0.570 | 1.290 | 0.565 | 0.173 | 2.290 | 0.808 | 0.308 | 1.710 | 1.107 | 0.231 | 0.430 | 0.429 | 0.058 | 0.000 | 0.000 | 0.000 |
| $8 / 12$ | Nd | 12 | 7.100 | 0.310 | 4.580 | 1.076 | 0.647 | 1.500 | 0.435 | 0.212 | 4.330 | 1.378 | 0.612 | 0.420 | 0.260 | 0.059 | 0.000 | 0.000 | 0.000 |
| $8 / 13$ | Hd | 7 | 5.000 | 0.850 | 4.860 | 1.580 | 0.971 | 2.290 | 0.918 | 0.457 | 5.430 | 1.631 | 1.086 | 1.000 | 0.845 | 0.200 | 0.000 | 0.000 | 0.000 |
| 8/14 | Wd | 19 | 6. 400 | 0.300 | 7.260 | 1.757 | 1.131 | 2.210 | 0.920 | 0.344 | 6.580 | 2.081 | 1.025 | 0.680 | 0.276 | 0.107 | 0.000 | 0.000 | 0.000 |
| $8 / 15$ | He | 9 | 6.100 | 0.260 | 6.220 | 3.282 | 1.018 | 2.220 | 1.498 | 0.364 | 3.890 | 1.060 | 0.636 | 1.560 | 0.377 | 0.255 | 0.000 | 0.000 | 0.000 |
| $8 / 16$ | We | 8 | 7.500 | 0.190 | 7.500 | 1.000 | 1.000 | 4.000 | 1.018 | 0.533 | 2.750 | 0.590 | 0.367 | 2.000 | 0.500 | 0.267 | 0.000 | 0.000 | 0.000 |
| $8 / 17$ | wd | 9 | 7.000 | 0.000 | 6.560 | 0.915 | 0.937 | 4.560 | 1.564 | 0.651 | 2.560 | 1.069 | 0.365 | 0.440 | 0.294 | 0.063 | 0.000 | 0.000 | 0.000 |
| 8118 | Wd | 14 | 6.200 | 0.260 | 2.290 | 0.910 | 0.368 | 3.360 | 0.843 | 0.540 | 3.360 | 0.692 | 0.540 | 0.500 | 0.228 | 0.080 | 0.000 | 0.000 | 0.000 |
| 8/19 | Wd | 7 | 4.900 | 0.550 | 3.860 | 0.595 | 0.794 | 0.860 | 0.261 | 0.176 | 2.570 | 1.110 | 0.529 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 9/20 | Wd | 10 | 1.100 | 0.310 | 6.200 | 1.436 | 0.873 | 4.900 | 0.823 | 0.690 | 3.900 | 1.472 | 0.549 | 0.400 | 0.267 | 0.056 | 0.000 | 0.000 | 0.000 |
| $8 / 21$ | Wd | 13 | 7.300 | 0.150 | 6.230 | 1.014 | 0.849 | 1.460 | 0.447 | 0.199 | 4.000 | 1.006 | 0.545 | 1.380 | 0.394 | 0.189 | 0.000 | 0.000 | 0.000 |
| $8 / 22$ | He | 9 | 6.000 | 0.500 | 2.330 | 0.943 | 0.389 | 3.000 | 0.898 | 0.500 | 0.110 | 0.111 | 0.019 | 3.440 | 0.930 | 0.574 | 0.000 | 0.000 | 0.000 |
| $8 / 23$ | He | 9 | 5.100 | 0.770 | 4.330 | 1.908 | 0.848 | 2.890 | 1.306 | 0.565 | 2.110 | 1.306 | 0.413 | 1.220 | 0.662 | 0.239 | 0.000 | 0.000 | 0.000 |
| 8/24 | wd | 7 | 6.400 | 0.980 | 10.000 | 1.496 | 1.573 | 1.430 | 0.685 | 0.225 | 8.570 | 2.983 | 1.348 | 0.290 | 0.184 | 0.045 | 0.000 | 0.000 | 0.000 |
| 8126 | wd | 6 | 6.800 | 0.970 | 5.500 | 2.277 | 0.805 | 0.830 | 0.477 | 0.122 | 1.670 | 0.615 | 0.244 | 1.000 | 0.516 | 0.146 | 0.000 | 0.000 | 0.000 |
| $8 / 27$ | Hd | 5 | 5.000 | 1.220 | 5.400 | 3.341 | 1.080 | 2.200 | 1.356 | 0.440 | 1.200 | 0.970 | 0.240 | 2.400 | 1.749 | 0.480 | 0.000 | 0.000 | 0.000 |
| 8128 | wd | 6 | 6.300 | 0.670 | 4.170 | 1.797 | 0.658 | 3.330 | 1.498 | 0.526 | 0.330 | 0.211 | 0.053 | 1.170 | 1.167 | 0.184 | 0.000 | 0.000 | 0.000 |
| $8 / 29$ | We | 7 | 5.700 | 0.890 | 6.860 | 2.165 | 1.200 | 0.710 | 0.474 | 0.125 | 2.140 | 0.937 | 0.375 | 1.710 | 0.714 | 0.300 | 0.000 | 0.000 | 0.000 |
| $8 / 30$ | We | 3 | 7.000 | 0.000 | 18.670 | 4.096 | 2.667 | 2.670 | 0.333 | 0.381 | 3.330 | 1.856 | 0.476 | 3.670 | 2.333 | 0.524 | 0.000 | 0.000 | 0.000 |
| $8 / 31$ | Wd | 22 | 6.600 | 0.300 | 7.140 | 1.315 | 1.075 | 0.230 | 0.113 | 0.034 | 1.860 | 1.035 | 0.281 | 1.320 | 0.357 | 0.199 | 0.000 | 0.000 | 0.000 |
| 9101 | wd | 12 | 7.200 | 0.210 | 9.080 | 1.379 | 1.267 | 0.170 | 0.112 | 0.023 | 1.580 | 0.679 | 0.221 | 1.170 | 0.458 | 0.163 | 0.000 | 0.000 | 0.000 |
| 9102 | wd | 3 | 5.000 | 0.000 | 10.330 | 2.333 | 2.067 | 0.670 | 0.667 | 0.133 | 1.000 | 0.000 | 0.200 | 6.000 | 2.082 | 1.200 | 0.000 | 0.000 | 0.000 |
| 9103 | Wd | 11 | 7.200 | 0.120 | 11.640 | 2.337 | 1.620 | 2.730 | 0.727 | 0.380 | 3.640 | 1.162 | 0.506 | 2.820 | 1.025 | 0.392 | 0.000 | 0.000 | 0.000 |
| $9 / 04$ | wd | 11 | 6.700 | 1.380 | 7.090 | 1.988 | 1.054 | 2.180 | 0.932 | 0.324 | 3.360 | 1.370 | 0.500 | 0.270 | 0.141 | 0.041 | 0.270 | 0.195 | 0.041 |
| 9105 | We | 12 | 5.200 | 0.630 | 10.330 | 2.054 | 1.984 | 0.580 | 0.260 | 0.112 | 2.170 | 1.278 | 0.416 | 0.420 | 0.260 | 0.080 | 0.000 | 0.000 | 0.000 |
| 9106 | We | 6 | 4.000 | 1.340 | 5.500 | 2.262 | 1.375 | 1.670 | 0.760 | 0.417 | 0.830 | 0.401 | 0.208 | 3.170 | 1.641 | 0.792 | 0.000 | 0.000 | 0.000 |
| 9107 | We | 20 | 6.800 | 0.360 | 9.250 | 2.191 | 1.367 | 1.850 | 0.483 | 0.273 | 4.650 | 1.757 | 0.687 | 0.650 | 0.221 | 0.096 | 0.000 | 0.000 | 0.000 |
| 9108 | Wd | 10 | 7.000 | 0.000 | 13.500 | 1.772 | 1.929 | 2.300 | 0.775 | 0.329 | 4.400 | 1.166 | 0.629 | 1.400 | 0.521 | 0. 200 | 0.000 | 0.000 | 0.000 |
| $9 / 09$ | wd | + | 7.000 | 0.000 | 7.250 | 2.150 | 1.036 | 2.000 | 1.080 | 0.286 | 0.000 | 0.000 | 0.000 | 1.750 | 0.479 | 0.250 | 0.000 | 0.000 | 0.000 |
| 9110 | Wd | 9 | 6.100 | 0.420 | 13.330 | 2.789 | 2.182 | 1.890 | 0.611 | 0.309 | 1.110 | 0.873 | 0.182 | 0.560 | 0.336 | 0.091 | 0.220 | 0.222 | 0.036 |
| $9 / 11$ | Wd | 20 | 6.400 | 0.370 | 11.100 | 1.934 | 1.741 | 1.100 | 0.307 | 0.173 | 4.450 | 2.411 | 0.698 | 1.200 | 0.536 | 0.188 | 0.000 | 0.000 | 0.000 |
| $9 / 12$ | He | 15 | 7.500 | 0.130 | 6.470 | 1.059 | 0.858 | 1.530 | 0.568 | 0.204 | 2.130 | 0.631 | 0.283 | 0.530 | 0.307 | 0.071 | 0.000 | 0.000 | 0.000 |
| 9/13 | He | 8 | 7.000 | 0.000 | 17.500 | 2.338 | 2.500 | 0.250 | 0.250 | 0.036 | 3.880 | 1.076 | 0.554 | 0.750 | 0.366 | 0.107 | 0.000 | 0.000 | 0.000 |
| $9 / 14$ | Hd | 10 | 6.400 | 0.600 | 4.400 | 0.748 | 0.688 | 0.300 | 0.300 | 0.047 | 1.000 | 0.471 | 0.156 | 1.800 | 0.646 | 0.281 | 0.000 | 0.000 | 0.000 |
| $9 / 15$ | ${ }^{4}$ | 4 | 5.500 | 0.870 | 6.750 | 3.198 | 1.227 | 1.500 | 0.866 | 0.273 | 7.500 | 4.787 | 1.364 | 0.750 | 0.750 | 0.136 | 0.000 | 0.000 | 0.000 |
| 9116 | ${ }^{6}$ | 12 | 7.200 | 0.110 | 14.250 | 3.953 | 1.988 | 0.170 | 0.112 | 0.023 | 6.420 | 1.401 | 0.395 | 1.000 | 0.492 | 0.140 | 0.000 | 0.000 | 0.000 |

 Summary Northern pike froe angler intervlews in the Asulukpak River aport fishery, 1987.

|  |  |  | Effort |  | Ralnbow Trout |  |  | Arctic Char |  |  | Arctic Grayling |  |  | Sockeye Salmon |  |  | Morthern Pike |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Date | $\begin{gathered} \mathrm{Wd} / \mathrm{We} \\ 1 / \end{gathered}$ | $\begin{gathered} \text { Smpple } \\ \text { S12e } \end{gathered}$ | Mean | Std Err | Man | Std Erx | EPUE | Maan | Std Er | HPUE | Mean | Std Err | HPUB | Mean | drr | HPUE | Mean | Std Erx | HPUE |
| $6 / 17$ | Hd | 2 | 4.300 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| $6 / 19$ | Wd | 4 | 3.500 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |  |  |  |  |  |  |
| 6/21 | We | 2 | 1. 300 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 6/22 | ud | 7 | 5.000 | 0.650 | 0.000 | 0.000 | 0.000 | 0.860 | 0.340 | 0.171 0.095 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 | O.000 | 0.000 0.000 | 0.000 | 0.000 | 0.000 |
| $6 / 24$ | Wd | 3 | 7.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.670 | O. 333 | 0.095 0.313 | 0.750 | 0.479 | 0.188 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| $6 / 25$ | wd | 5 | 4.000 | 0.000 0.460 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 | 1.250 1.000 | 0.479 0.632 | 0. 0.294 | 0.7000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| $6 / 26$ | Wd | 5 | 3.400 5.100 | 0.460 0.070 | 0.000 0.000 | 0.000 0.000 | 0.000 | 1.000 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0. 000 | 0.000 |
| 6128 | We | 4 | 5.100 5.300 | 0.070 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 | 0.250 | 0.250 | 0.045 | 0.250 | 0.250 | 0.045 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| $6 / 30$ $7 / 101$ | Wd | 4 | 3. 300 4.100 | O. 350 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.430 | 0.429 | 0.103 | 0.140 | 0.143 | 0.034 | 0.000 | 0.000 | 0.000 |
| 7102 | wd | 3 | 3.800 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| $1 / 03$ | We | 10 | 5.800 | 0.640 | 0.100 | 0.100 | 0.017 | 0.800 | 0.800 | 0.139 | 0.000 | 0.000 | 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 | 0.000 0.000 |
| 1104 | He | 4 | 1.700 | 0.870 | 0.000 | 0.000 | 0.000 | O. 0.330 | 0.225 | 0.053 | 0.170 | 0.167 | 0.026 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 7105 | He | 12 | 6.300 | 0.810 | 0.000 | 0.000 | 0.000 | 0.330 0.580 | 0.225 0.260 | 0.053 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.080 | 0.083 | 0.022 |
| 7107 | Hd | 12 | 3.900 | 0. 360 | 0.000 | 0.000 | 0.000 | 0.580 0.000 | 0.260 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.250 | 0.250 | 0.036 | 0.000 | 0.000 | 0.000 |
| 7108 | Wd | , | 7.000 | 0.580 | 0.000 | 0. 0000 |  | 0.000 | 0.000 0.286 | 0.065 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 7109 | Wd | 7 | 4. 400 | 0.720 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 | 0.290 0.620 | 0.286 0.266 | 0.133 | 0.080 | 0.077 | 0.017 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1/10 | Wd | 13 | 4.600 | 0.490 | 0.000 | 0.000 | 0.000 | 0.620 | 0.266 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| $7 / 11$ | We | 3 | 0.800 4.500 | 0.120 1.000 | 0.000 0.000 | 0.000 0.000 | 0.000 | 0.330 | 0.333 | 0.074 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| $7 / 13$ | Wd | 20 | 4.800 | 0.400 | 0.000 | 0.000 | 0.000 | 0.500 | 0.295 | 0.103 | 0.000 | 0.000 | 0.000 | 0.050 | 0.050 | 0.010 | 0.000 | 0.000 | 0.000 |
| $7 / 14$ | wd | 4 | 3.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| $7 / 15$ | wd | 6 | 4.800 | 0.440 | 0.000 | 0.000 | 0.000 | 0.500 | 0.500 | 0.105 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | -. 000 | 0.000 | 0.000 |
| 7/16 | Wd | 15 | 1.900 | 0.380 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | O. 0000 | 0.000 | 0.000 | 0.000 | 0.000 0.000 | 0.000 | 0.000 0.000 |
| 7117 | Wd | 14 | 2.700 | 0.590 | 0.000 | 0.000 | 0.000 | 0.430 | 0.173 | 0.158 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| $7 / 18$ | We | 5 | 2. 900 | 0.900 | 0.000 | 0.000 | 0.000 | 0.000 0.000 | 0.000 | 0.000 | 0.250 | 0.250 | 0.054 | 0.130 | 0.125 | 0.027 | 0.000 | 0.000 | 0.000 |
| $7 / 19$ | We | 8 | 4.600 | 0.360 | 0.000 0.000 | 0.000 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.110 | 0.111 | 0.029 | 0.000 | 0.000 | 0.000 |
| 7120 | d | 9 | 3.800 | 0.940 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 | 0.000 | 0.000 | 0.220 | 0.147 | 0.050 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 7/21 | Wd | 9 | 4.400 | 0.180 | 0.000 0.000 | 0.000 | 0.000 | 0.130 | 0.125 | 0.026 | 0.000 | 0.000 | 0.000 | 0.130 | 0.125 | 0.026 | 0.000 | 0.000 | 0.000 |
| $7 / 22$ | ud | ${ }^{8}$ | 4.900 | 0.480 | 0.000 0.000 | 0.000 | 0.000 | 2.060 | 0.528 | 0.344 | 0.000 | 0.000 | 0.000 | 0.190 | 0.136 | 0.031 | 0.000 | 0.000 | 0.000 |
| 7/23 | wd | 16 | 6.000 | 0.320 0.330 | 0.000 0.000 | 0.000 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.640 | 0.544 | 0.111 | 0.000 | 0.000 | 0.000 |
| 7124 | Wd | 11 | 5.700 | 0.330 | 0.000 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.750 | 0.250 | 0.150 | 0.000 | 0.000 | 0.000 |
| 7125 | He | 4 | 5.000 6.000 | 0.000 0.000 | 0.000 0.000 | 0.000 | 0.000 | 1.500 | 0.824 | 0.250 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| $7 / 27$ | Wd | 6 | 7.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 7128 | Wd | 9 | 4.900 | 0.900 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.110 | 0.111 | 0.023 | 0.000 | 0.000 | 0.000 0.000 |
| 7129 | wd | 6 | 6.500 | 0.660 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 | 0.000 | 0.000 |
| 7/30 | Wd | 6 | 4.000 | 0.970 | 0.000 | 0. 000 | 0.000 | 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 7131 | Wd | 11 | 6. 600 | 0.130 0.670 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| $8 / 02$ $8 / 03$ | Wd | 12 | 6.800 | 0.170 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 8104 | ud | 11 | 5.600 | 0.340 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.00 |

-Cont Inued

Appendix Table 8. Sumary of dally angler offort (angler-hours) and harveat rates (iplof, fish per angler-hour) for
and Northern pike froo angler interviews in the Asulukpak River sport fishery, 1987 (continued).

|  |  |  | Effort |  | Rainbov Trout |  |  | Arctic Char |  |  | Aretic Grayling |  |  | Sockeye Salmon |  |  | Narthern Pike |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Dete | $\begin{gathered} \mathrm{Wd} / \mathrm{We} \\ 1 / \end{gathered}$ | $\begin{gathered} \text { Sanple le } \\ \text { Sixe } \end{gathered}$ | Mean | Std Err | Mean | Std Err | HPUE | Mean | Sed Err | HPUE | Mean | Std Err | hPus | Mean | td Err | HPUE | Mean | Std Err | PPUE |
|  |  |  |  |  |  |  |  |  |  |  | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| $8 / 05$ $8 / 06$ | Wd | 5 | 3.000 7.300 | 0.000 0.410 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 8107 | Wd | 4 | 7.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 8108 | We | 2 | 7.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 8109 | We | 14 | 6.700 | 0.300 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |  | 0.000 |
| $8 / 10$ | wd | 6 | 7.000 | 0.630 | 0. 000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| $8 / 11$ | $\boldsymbol{w d}$ | 7 | 7.400 | 0.570 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 0.000 | 0.000 0.000 |
| $8 / 12$ | wd | 12 | 7.100 | 0.310 | 0.000 | 0.000 | 0.000 | 0.730 | 0.218 | 0.106 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 8/13 | wd | 7 | 5.000 | 0.850 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 |
| $8 / 14$ | Wd | 19 | 6.400 | 0.300 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |  |  |  |  |  |
| $8 / 15$ | We | 9 | 6.100 | 0.260 | 0.110 | 0.111 | 0.018 | 0.220 | 0.222 | 0.036 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 8116 | He | 8 | 7.500 | 0.190 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 0.000 | O. 0000 | 0.000 | 0.000 | 0.000 | 0.000 |
| $8 / 17$ | Wd | 9 | 3.000 | 0. 200 | 0.000 | 0.000 | 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| $8 / 18$ | Wd | 14 | 6.200 | 0.260 0.550 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| $8 / 19$ $8 / 20$ | Wd | ${ }_{10}^{7}$ | 4.900 7.100 | 0.350 | 0.000 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| $8 / 21$ | wd | 13 | 7.300 | 0.150 | 0.000 | 0.000 | 0.000 | 0.380 | 0.241 | 0.052 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 8122 | We | 9 | 6.000 | 0.500 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | . 000 | 0.000 | 0.000 |
| $8 / 23$ | We | 9 | 5.100 | 0.770 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 0.000 |
| 8/24 | Hd | 7 | 6.400 | 0.980 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 0.000 | 0.000 |
| 8/26 | Wd | 6 | 6.800 | 0.970 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| $8 / 27$ | Wd | 5 | 5.000 | 1.220 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| $8 / 28$ | Wd | ${ }^{6}$ | 6.300 | 0.670 | 0.000 | 0.000 | 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| $8 / 29$ | We | 7 | 5.700 | 0.890 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| $8 / 30$ | He | 3 | 7.000 | 0. 000 | 0.000 | 0.000 | 0.000 |  | 0.000 0.000 | 0.000 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| $8 / 31$ | Hd | 22 | 6.600 | 0.300 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |  | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| $9 / 01$ | Hd | 12 | 7.200 | 0.210 | 0.000 | 0.000 | 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 9102 | wd | 3 | 5.000 | 0.000 | 0.000 | 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 9103 | Wd | 11 | 7.200 | 0.120 | 0.000 | 0.000 |  | 0.000 0.270 | 0.000 0.273 | ${ }_{0} .041$ | 0.820 | 0.444 | 0.122 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 9104 | Wd | 11 | 6.700 | 1.380 | 0.000 | 0.000 | 0.000 0.000 | 0.270 0.000 | 0.273 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 9105 | He | 12 | 5.200 | 0.630 | 0.000 | 0.000 | 0.000 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 9106 | We | ${ }^{6}$ | 4.000 | 1.340 0.360 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| $9 / 07$ $9 / 08$ | Hed | 20 10 | 6.800 7.000 | 0.360 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 9109 | wd | 4 | 7.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| $9 / 10$ | Wd | 9 | 6.100 | 0.420 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | ${ }^{0.000}$ | 0.000 | 0.000 | 0.000 |
| $9 / 11$ | Wd | 20 | 6.400 | 0.370 | 0.000 | 0.000 | 0.000 | 0.100 | 0.100 | 0.016 0.000 | 0.000 0.000 | O.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 9112 | He | 15 | 7.500 | 0.130 | 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| $9 / 13$ | ${ }^{\text {He }}$ | $1{ }^{8}$ | 7.000 6.400 | 0.000 0.600 | 0.000 0.000 | 0.000 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 9/15 | Wd | 4 | 5.500 | 0.870 | 0.000 | 0.000 | 0.000 | 0.250 | 0.250 | 0.045 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| $9 / 16$ | Hd | 12 | 7.200 | 0.110 | 0.000 | 0.000 | 0.000 | 0.080 | 0.083 | 0.012 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

Appendix Table 9. Sumary of dally angler effort (angler-hours) and catch rates (CPUE, flah per angler-hour) for rainbow trout, Arctic char, Arctic grayling, sockeye asimon, and Northern pike from angler Intervievs in the Agulukpak River sport fishery, 1988

|  |  |  | Effort |  | Rainbow Trout |  |  | Arctic Char |  |  | Arctic Graylins |  |  | Sockeye Salmon |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Date | $1 /$ | Slze | Mean | Std Err | Mean | Std Err | CPUE | Mean | Std Err | CPUE | Mean | Std Err | CPUE | Mean | Std Err | CPUE |
| 614 | Wd | 4 | 7.000 | 0.000 | 0.750 | 0.250 | 0.107 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 619 | We | 9 | 6.700 | 0.130 | 0.560 | 0.242 | 0.083 | 0.000 | 0.000 | 0.000 | 0.330 | 0.167 | 0.050 | 0.000 | 0.000 0.000 | 0.000 |
| 620 | Hd | 7 | 6.200 | 0.370 | 1.290 | 0.360 | 0.207 | 0.000 | 0.000 | 0.000 | 1.000 | 0.577 | 0.161 | 0.000 | 0.000 | 0.000 |
| 621 | Wd | 7 | 4.600 | 0.200 | 1.000 | 0.309 | 0.219 | 0.000 | 0.000 | 0.000 | 0.290 | 0.184 | 0.063 | 0.000 | 0.000 | 0.000 |
| 622 | Wd | 4 | 5.200 | 0.000 | 1.500 | 0.289 | 0.290 | 0.000 | 0.000 | 0.000 | 2.000 | 1.414 | 0.387 | 0.000 | 0.000 | 0.000 |
| 623 | Wd | 5 | 5.000 | 0.000 | 1. 400 | 1.166 | 0.280 | 0.000 | 0.000 | 0.000 | 8.000 | 3.391 | 1.600 | 0.000 | 0.000 | 0.000 |
| 624 | Hd | 10 | 4.800 | 0.480 | 2.000 | 0.537 | 0.417 | 0.000 | 0.000 | 0.000 | 1.300 | 0.473 | 0.271 | 0.000 | 0.000 | 0.000 |
| 626 | He | 4 | 4.000 | 0.000 | 2.250 | 0.479 | 0.563 | 0.000 | 0.000 | 0.000 | 3.000 | 1.080 | 0.750 | 0.000 | 0.000 | 0.000 |
| 627 | Wd | 9 | 5.200 | 0.260 | 1.440 | 0.412 | 0.277 | 0.000 | 0.000 | 0.000 | 5.330 | 1.404 | 1.021 | 0.000 | 0.000 | 0.000 |
| 628 | Hd | 4 | 2.500 | 0.000 | 1.250 | 0.750 | 0.500 | 0.000 | 0.000 | 0.000 | 0.500 | 0.500 | 0.200 | 0.000 | 0.000 | 0.000 |
| 629 | Hd | 9 | 1.400 | 0.140 | 0.330 | 0.167 | 0.240 | 0.000 | 0.000 | 0.000 | 0.560 | 0.294 | 0.400 | 0.000 | 0.000 | 0.000 |
| 630 | Wd | 5 | 4.200 | 0.800 | 2.200 | 0.374 | 0.524 | 0.000 | 0.000 | 0.000 | 2.000 | 2.000 | 0.476 | 0.000 | 0.000 | 0.000 |
| 703 | We | 8 | 4.500 | 0.630 | 2.750 | 0.750 | 0.611 | 0.000 | 0.000 | 0.000 | 7.750 | 2.644 | 1.722 | 0.000 | 0.000 | 0.000 |
| 704 | He | 5 | 4.000 | 0.000 | 1.000 | 0.447 | 0.250 | 0.000 | 0.000 | 0.000 | 2.000 | 0.837 | 0.500 | 0.000 | 0.000 | 0.000 |
| 705 | Wd | 4 | 4.500 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 15.250 | 2.839 | 3.389 | 0.000 | 0.000 | 0.000 |
| 706 | Wd | 4 | 5.000 | 0.000 | 2. 500 | 1.190 | 0.500 | 0.000 | 0.000 | 0.000 | 4.750 | 0.479 | 0.950 | 0.000 | 0.000 | 0.000 |
| 710 | He | 11 | 4.700 | 0.660 | 5.820 | 1.151 | 1.227 | 0.000 | 0.000 | 0.000 | 3.450 | 0.824 | 0.728 | 0.000 | 0.000 | 0.000 |
| 711 | Wd | 8 | 5.600 | 0.680 | 3.630 | 0.754 | 0.648 | 0.000 | 0.000 | 0.000 | 5.880 | 1.246 | 1.050 | 0.000 | 0.000 | 0.000 |
| 712 | Wd | 9 | 5.700 | 0.600 | 3.560 | 0.729 | 0.627 | 0.000 | 0.000 | 0.000 | 2.780 | 0.619 | 0.490 | 0.000 | 0.000 | 0.000 |
| 713 | Wd | 15 | 4. 300 | 0.340 | 2.530 | 0.616 | 0.582 | 0.000 | 0.000 | 0.000 | 2.870 | 0.742 | 0.659 | 0.000 | 0.000 | 0.000 |
| 714 | Wd | 9 | 5. 200 | 0.280 | 5.000 | 0.943 | 0.957 | 0.000 | 0.000 | 0.000 | 4.110 | 1.099 | 0.787 | 0.000 | 0.000 | 0.000 |
| 715 | Hd | 4 | 6.000 | 0.000 | 15.750 | 2.810 | 2.625 | 0.000 | 0.000 | 0.000 | 7.000 | 1.080 | 1.167 | 0.000 | 0.000 | 0.000 |
| 716 | He | 2 | 4.000 | 0.000 | 5.500 | 0.500 | 1.375 | 0.000 | 0.000 | 0.000 | 0.500 | 0.500 | 0.125 | 0.000 | 0.000 | 0.000 |
| 717 | He | 8 | 6.900 | 0.140 | 5.500 | 1.464 | 0.801 | 0.000 | 0.000 | 0.000 | 6.630 | 3.207 | 0.965 | 0.250 | 0.250 | 0.036 |
| 718 | Hd | 11 | 4.700 | 0.560 | 4.450 | 1.310 | 0.938 | 0.000 | 0.000 | 0.000 | 4.090 | 0.719 | 0.861 | 0.270 | 0.273 | 0.057 |
| 719 | Wd | 16 | 4.200 | 0.580 | 2.750 | 0.452 | 0.658 | 0.000 | 0.000 | 0.000 | 1.940 | 0.413 | 0.464 | 0.250 | 0.144 | 0.060 |
| 720 | Wd | 9 | 6.000 | 0.110 | 4.110 | 0.539 | 0.691 | 0.000 | 0.000 | 0.000 | 5.780 | 1.024 | 0.971 | 0.000 | 0.000 | 0.000 |
| 721 | Wd | 6 | 6.500 | 0.120 | 5.330 | 1.085 | 0.824 | 0.000 | 0.000 | 0.000 | 7.330 | 1.585 | 1.133 | 0.000 | 0.000 | 0.000 |
| 722 | ud | 9 | 5.200 | 0.030 | 5.330 | 1.633 | 1.031 | 0.000 | 0.000 | 0.000 | 2.670 | 0.707 | 0.515 | 0.000 | 0.000 | 0.000 |
| 723 | He | 2 | 3.600 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 5.500 | 0.500 | 1.536 | 0.000 | 0.000 | 0.000 |
| 725 | Wd | 14 | 4.100 | 0.790 | 4.140 | 1.460 | 1.001 | 0.000 | 0.000 | 0.000 | 6.930 | 2.410 | 1.675 | 0.430 | 0.228 | 0.104 |
| 726 | Wd | 18 | 4.100 | 0.770 | 2.610 | 1.064 | 0.644 | 0.000 | 0.000 | 0.000 | 2.560 | 1.169 | 0.630 | 0.330 | 0.198 | 0.082 |
| 727 | Wd | 10 | 4.500 | 0.860 | 3.900 | 1.149 | 0.875 | 0.000 | 0.000 | 0.000 | 6.900 | 3.071 | 1.548 | 1.400 | 1.400 | 0.314 |
| 728 | Hd | 9 | 5.600 | 1.060 | 5.110 | 1.925 | 0.911 | 0.000 | 0.000 | 0.000 | 3.000 | 1.258 | 0.535 | 1.560 | 0.818 | 0.271 |
| 729 | Wd | 4 | 5.400 | 1.650 | 1.000 | 0.577 | 0.184 | 0.000 | 0.000 | 0.000 | 2.500 | 1.658 | 0.460 | 3.000 | 1.291 | 0.552 |
| 730 | He | 13 | 5.200 | 0.560 | 1.000 | 0.376 | 0.192 | 0.000 | 0.000 | 0.000 | 0.620 | 0.331 | 0.118 | 0.920 | 0.265 | 0.178 |
| 731 | We | 6 | 4.900 | 0.880 | 5.330 | 1.542 | 1.079 | 0.000 | 0.000 | 0.000 | 1.670 | 0.843 | 0.337 | 0.000 | 0.000 | 0.000 |
| 801 | Wd | 18 | 4.700 | 0.550 | 2.330 | 0.560 | 0.495 | 0.220 | 0.129 | 0.047 | 0.330 | 0.198 | 0.071 | 3.280 | 1.970 | 0.696 |
| 802 | Wd | 5 | 1.000 | 0.180 | 2.000 | 1.265 | 1.938 | 0.400 | 0.245 | 0.388 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 803 | Wd | 5 | 4.900 | 0.780 | 3.400 | 0.980 | 0.694 | 0.000 | 0.000 | 0.000 | 7.800 | 3.323 | 1.592 | 3.800 | 2.107 | 0.776 |
| 805 | Hd | 20 | 2.600 | 0.270 | 2.600 | 0.832 | 0.990 | 0.000 | 0.000 | 0.000 | 0.800 | 0.381 | 0.305 | 0.700 | 0.282 | 0.267 |
| 807 | We | 10 | 6.300 | 0.680 | 5.500 | 1.662 | 0.870 | 0.000 | 0.000 | 0.000 | 6.100 | 1.441 | 0.964 | 1.300 | 0.597 | 0.206 |
| 808 | ${ }^{W}$ | 3 | 3.300 | 1.330 | 5.000 | 3.000 | 1.500 | 0.000 | 0.000 | 0.000 | 0.670 | 0.667 | 0.200 | 0.000 | 0.000 | 0.000 |
| 809 | ${ }^{\text {Hd }}$ | 20 | 4.700 | 0.590 | 10.550 | 2.402 | 2.245 | 0.000 | 0.000 | 0.000 | 3.900 | 0.894 | 0.830 | 0.100 | 0.100 | 0.021 |
| 810 | Hd | 19 | 4.900 | 0.450 | 5.160 | 1.366 | 1.058 | 0.000 | 0.000 | 0.000 | 1.680 | 0.588 | 0.345 | 0.470 | 0.221 | 0.097 |
| 811 | ${ }_{4 d}$ | ${ }_{6}^{6}$ | 6.300 | 1.010 | 3.000 | 0.516 | 0.480 | 0.000 | 0.000 | 0.000 | 1.170 | 0.980 | 0.187 | 0.670 | 0.333 | 0.107 |
| 812 | Wd | 19 | 4.900 | 0.530 | 8.470 | 1.802 | 1.728 | 0.000 | 0.000 | 0.000 | 2.680 | 0.895 | 0.547 | 0.110 | 0.072 | 0.021 |
| 813 | He | 20 | 5.300 | 0.310 | 11.200 | 2.829 | 2.113 | 0.000 | 0.000 | 0.000 | 4.450 | 0.896 | 0.840 | 0.450 | 0.256 | 0.085 |
| 814 | We | 9 | 3.900 | 0.980 | 4.000 | 2.186 | 1.029 | 0.000 | 0.000 | 0.000 | 1.780 | 0.547 | 0.457 | 0.110 | 0.111 | 0.029 |

Appendix Table 9. Sumary of dally angler effort (angler-hours) and catch rates (CPUE, fish per angler-hour) for rainbow trout, Arctic char, Arctic grayling, sockey salmon, and Northern pike from angler interviews in the Agulukpak River sport fishery, 1988 (continued)

|  |  |  | Effort |  | Ralnbow Trout |  |  | Arctic Char |  |  | Arctic Grayling |  |  | Sockeye Salmon |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Date | 11 | SLze | Mean | Std Err | Mean | Std Err | CPUE | Mean | Std Err | CPUE | Mean | Std Err | CPUE | Mean | Std Ert | cpus |
| 815 | Hd | 12 | 6.500 | 0.180 | 8.000 | 1.838 | 1.239 | 0.000 | 0.000 | 0.000 | 2.580 | 0.570 | 0.400 | 0.420 | 0.229 | 0.065 |
| 816 | Wd | 12 | 4.000 | 0.620 | 5.000 | 1.610 | 1.235 | 0.000 | 0.000 | 0.000 | 2.500 | 1.209 | 0.618 | 0.000 | 0.000 | 0.000 |
| 817 | Wd | 3 | 6.200 | 0.000 | 1.000 | 0.577 | 0.162 | 0.000 | 0.000 | 0.000 | 2.000 | 0.577 | 0.324 | 0.670 | 0.667 | 0.104 |
| 818 | Wd | 4 | 6.000 | 0.000 | 5.750 | 3.326 | 0.958 | 0.000 | 0.000 | 0.000 | 3.250 | 1.493 | 0.542 | 0.750 | 0.750 | 0.125 |
| 819 | Wd | 5 | 3.300 | 0.700 | 8.400 | 4.082 | 2.545 | 0.000 | 0.000 | 0.000 | 1.600 | 0.927 | 0.485 | 0.000 | 0.000 | 0.000 |
| 820 | He | 3 | 6.000 | 0.000 | 10.670 | 2.963 | 1.778 | 0.000 | 0.000 | 0.000 | 0.330 | 0.333 | 0.056 | 2.670 | 2.667 | 0.444 |
| 821 | He | 2 | 7.600 | 0.380 | 7.000 | 3.000 | 0.918 | 0.000 | 0.000 | 0.000 | 6.500 | 0.500 | 0.852 | 1.000 | 1.000 | 0.131 |
| 823 | Wd | 14 | 4.400 | 0.880 | 4.140 | 1.305 | 0.932 | 0.000 | 0.000 | 0.000 | 1.790 | 0.395 | 0.402 | 2.860 | 0.983 | 0.643 |
| 824 | Wd | 3 | 3.600 | 0.950 | 1.670 | 1.667 | 0.462 | 0.000 | 0.000 | 0.000 | 0.330 | 0.333 | 0.092 | 2.670 | 2.186 | 0.739 |
| 825 | Wd | 10 | 3.900 | 0.800 | 1.700 | 0.955 | 0.432 | 0.000 | 0.000 | 0.000 | 1.000 | 0.667 | 0.254 | 2.400 | 0.819 | 0.610 |
| 827 | We | 14 | 1.700 | 0.380 | 0.360 | 0.225 | 0.215 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1.500 | 0.863 | 0.903 |
| 828 | We | 5 | 5.400 | 0.910 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 9.400 | 2.379 | 1.741 |
| 829 | Wd | 15 | 3.600 | 0.260 | 0.330 | 0.159 | 0.093 | 0.000 | 0.000 | 0.000 | 0.470 | 0.274 | 0.131 | 1.530 | 0.524 | 0.430 |
| 831 | Wd | 11 | 5.200 | 0.590 | 2.820 | 1.306 | 0.542 | 0.000 | 0.000 | 0.000 | 0.450 | 0.366 | 0.087 | 2.270 | 1.054 | 0.437 |
| 901 | wd | 14 | 4.400 | 0.730 | 1.640 | 0.580 | 0.370 | 0.000 | 0.000 | 0.000 | 0.290 | 0.221 | 0.064 | 2.570 | 1.440 | 0.580 |
| 902 | Wd | 9 | 4.600 | 0.920 | 1.000 | 0.289 | 0.218 | 0.000 | 0.000 | 0.000 | 1.670 | 0.782 | 0.364 | 5.110 | 1.720 | 1.115 |
| 903 | He | 4 | 1.300 | 0.140 | 0.500 | 0.289 | 0.400 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 3.000 | 1.225 | 2.400 |
| 904 | We | 15 | 4.700 | 0.700 | 1.400 | 0.496 | 0.296 | 0.000 | 0.000 | 0.000 | 4.070 | 2.661 | 0.861 | 3.270 | 2.053 | 0.692 |
| 905 | We | 15 | 2.900 | 0.400 | 0.530 | 0.165 | 0.183 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.870 | 0.456 | 0.298 |
| 906 | Wd | 11 | 5.200 | 0.760 | 1.910 | 0.595 | 0.370 | 0.000 | 0.000 | 0.000 | 6.270 | 3.611 | 1.216 | 3.730 | 2.374 | 0.722 |
| 907 | Wd | 4 | 5.000 | 0.000 | 2.250 | 1.109 | 0.450 | 0.000 | 0.000 | 0.000 | 20.500 | 4.291 | 4.100 | 1.250 | 0.629 | 0.250 |
| 908 | Wd | 12 | 4.600 | 0.890 | 2.080 | 0.883 | 0.450 | 0.000 | 0.000 | 0.000 | 0.750 | 0.411 | 0.162 | 1.250 | 0.494 | 0.270 |
| 910 | He | 8 | 2.700 | 0.380 | 0.500 | 0.378 | 0.182 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.130 | 0.125 | 0.046 |
| 911 | He | 11 | 5.800 | 0.570 | 3.090 | 1.156 | 0.536 | 0.000 | 0.000 | 0.000 | 1.270 | 0.384 | 0.221 | 1.360 | 0.789 | 0.237 |
| 912 | Wd | 11 | 7.000 | 0.180 | 5.820 | 0.630 | 0.833 | 0.000 | 0.000 | 0.000 | 3.000 | 1.152 | 0.429 | 0.270 | 0.273 | 0.039 |
| 913 | Wd | 14 | 6.000 | 0.560 | 11.930 | 3.026 | 1.978 | 0.000 | 0.000 | 0.000 | 1.290 | 0.928 | 0.213 | 3.000 | 1.313 | 0.498 |
| 915 | Wd | 25 | 5.100 | 0.140 | 2.040 | 0.418 | 0.400 | 0.000 | 0.000 | 0.000 | 0.200 | 0.100 | 0.039 | 1.880 | 0.681 | 0.368 |
| 916 | Wd | 12 | 3.900 | 0.350 | 2.750 | 0.719 | 0.707 | 0.000 | 0.000 | 0.000 | 0.330 | 0.142 | 0.086 | 0.000 | 0.000 | 0.000 |

1/ Wd - Weekday; We = Weekend or holiday

Appendix Table 10. Sumary of dally angler effort (angler-hours) and harvest rates (BPUE, fish per angler hour) for rainbow trout, Arctic char,
Arctic grayling, sockeye salmon, and Northern pike from angler intervievs in the Asulukpak River aport fishery,

|  |  |  | Effort |  | Rainbow Trout |  |  | Arctic Char |  |  | Arctic Graylins |  |  | Sockeye Salmon |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Date | $\begin{aligned} & \mathrm{Hd} / \mathrm{We} \\ & \text { 1/ } \end{aligned}$ | $\begin{gathered} \text { Sample } \\ \text { Size } \end{gathered}$ | Hean | Std Err | Man | Std Err | HPUE | Mean | Std Erx | BPUE | Mean | Std Err | HPUE | Mann | ed Err | HPUE |
| 614 | Hd | 4 | 7.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 619 | We | 9 | 6.700 | 0.130 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 620 | Wd | 7 | 6.200 | 0.370 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 621 | Wd | 7 | 4.600 | 0.200 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 622 | Wd | 4 | 5.200 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.250 | 0.250 | 0.048 | 0.000 | 0.000 | 0.000 |
| 623 | Wd | 5 | 5.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 624 | Wd | 10 | 4.800 | 0.480 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.100 0.000 | 0.100 0.000 | 0.021 0.000 | 0.000 0.000 | 0.000 | 0.000 |
| 626 | He | 4 | 4.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 0.000 | 0.000 0.560 | 0.1000 0.242 | 0.006 | 0.000 | 0.000 | 0.000 |
| 627 | Wd | 9 | 5.200 | 0.260 | 0.000 | 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 | 0.560 0.000 | 0.242 0.000 | 0.106 0.000 | 0.000 | 0.000 | 0.000 |
| 628 | Wd | 4 | 2.500 | 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 629 | Wd | 9 | 1.400 | 0.140 | 0.000 0.000 | 0.000 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 630 | Wd | 5 | 4.200 4.500 | 0.800 0.630 | 0.000 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 703 704 | We | 8 5 | 4.500 4.000 | 0.630 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 705 | Wd | 4 | 4.500 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 706 | Wd | 4 | 5.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 710 | He | 11 | 4.700 | 0.660 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 711 | Wd | 8 | 5.600 | 0.680 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 712 | Wd | 9 | 5.700 | 0.600 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 713 | Wd | 15 | 4.300 | 0.340 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 714 | Wd | 9 | 5.200 | 0.280 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 | 0.000 | 0.000 |
| 715 | Hd | 4 | 6.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 716 | We | 2 | 4.000 | 0.000 | 0.000 | 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 717 | We | ${ }^{8}$ | 6.900 4.700 | 0.140 0.560 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 | 0.000 | 0.000 | 0.090 | 0.091 | 0.019 |
| 718 719 | Wd | 116 | 4.700 4.200 | 0.580 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 720 | Wd | 9 | 6.000 | 0.110 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 721 | Wd | 6 | 6.500 | 0.120 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 122 | Wd | 9 | 5.200 | 0.030 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 723 | He | 2 | 3.600 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.0017 |
| 725 | Wd | 14 | 4.100 | 0.790 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.070 | 0.071 | 0.017 0.000 | 0.060 | 0.056 | 0.014 |
| 726 | Wd | 18 | 4.100 | 0.770 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 727 728 | Wd | 10 | 4.500 5.600 | 0.860 1.060 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.330 | 0.236 | 0.059 |
| 728 729 | Wd | 9 | 5.6000 | 1.060 1.650 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1.000 | 0.408 | 0.184 |
| 130 | We | 13 | 5.200 | 0.560 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.380 | 0.140 | 0.074 |
| 731 | We | 6 | 4.900 | 0.880 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.330 | 0.333 | 0.067 | 0.000 | 0.000 | 0.000 |
| 801 | Wd | 18 | 4.700 | 0.550 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.440 | 0.232 | 0.094 |
| 802 | Wd | 5 | 1.000 | 0.180 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 803 | Wd | 5 | 4.900 | 0.780 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1.000 | 0.775 | 0.204 |
| 805 | Wd | 20 | 2.600 | 0.270 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 807 | We | 10 | 6.300 | 0.680 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |  |  |  |
| 808 | Wd | 3 | 3.300 | 1.330 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 |
| 809 | Wd | 20 | 4.700 | 0.590 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 | 0.0000 | 0.000 | 0.000 0.000 |
| 810 | Wd | 19 | 4.900 | 0.450 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 0.000 | 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 811 | Wd | 6 | 6.300 | 1.010 | 0.000 | 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 812 | Wd | 19 | 4.900 | 0.530 | 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 813 | We | 20 | 5.300 | 0.310 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 814 | We | 9 | 3.900 | 0.980 |  |  |  |  |  |  |  |  |  |  |  |  |

-Continued-

Appendix Table 10. Sumary of dally angler effort (angler-hours) and harvest rates (HPUE, fish per angler hour) for ralnbow trout, Arctic char, Sumary of daily angler effort (angler-hours) and harvast rates (apue, fish per angler hour) for rainbow trout, arctic char,
Arctic grayling, sockere salmon, and Northern plike from angler interviews in the Agulukpak River aport fishery, iges (continued).

|  |  |  | Effort |  | Rainbow Trout |  |  | Areric Char |  |  | Areric Grayling |  |  | Sockeye Salmon |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Date | $1 /$ | $\begin{aligned} & \text { Sample } \\ & \text { Size } \end{aligned}$ | Mean | Std Err | Mean | Std Err | HPUE | Maan | Std Err | HPUE | Mean | Std Err | EPUE | Mean | td Eri | hPUE |
| 815 | Wd | 12 | 6.500 | 0.180 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.170 | 0.167 | 0.026 | 0.000 | 0.000 | 0.000 |
| 816 | Wd | 12 | 4.000 | 0.620 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 817 | Wd | 3 | 6.200 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1.000 | 1.000 | 0.162 | 0.000 | 0.000 | 0.000 |
| 818 | Wd | 4 | 6.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 819 | Wd | 5 | 3. 300 | 0.700 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 820 | We | 3 | 6.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 821 | We | 2 | 7.600 | 0.380 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 823 | Wd | 14 | 4.400 | 0.880 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 824 | Wd | 3 | 3.600 | 0.950 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 825 | Wd | 10 | 3.900 | 0.800 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 827 | We | 14 | 1.700 | 0.380 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 828 | We | 5 | 5.400 | 0.910 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 829 | Wd | 15 | 3.600 | 0.260 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 831 | Wd | 11 | 5.200 | 0.590 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 901 | Wd | 14 | 4.400 | 0.730 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 902 | Hd | 9 | 4.600 | 0.920 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 903 | He | 4 | 1.300 | 0.140 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 904 | We | 15 | 4.700 | 0.700 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 905 | We | 15 | 2.900 | 0.400 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 906 | Wd | 11 | 5.200 | 0.760 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 907 | Wd | 4 | 5.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 908 | Wd | 12 | 4.600 | 0.890 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 910 | We | 8 | 2.700 | 0.380 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 911 | We | 11 | 5.800 | 0.570 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 912 | Wd | 11 | 7.000 | 0.180 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 913 | Wd | 14 | 6.000 | 0.560 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 915 | Wd | 25 | 5.100 | 0.140 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 916 | Wd | 12 | 3.900 | 0.350 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

$1 / \mathrm{Wd}$ - Weekday; We = Weekend or holiday.

Appendix Table 11. Sumary of dally angler effort (angler-hours) and catch rates (CPUE, fish per angler-hour) for rainbow trout, Arctic char, Sumary of daily angler effort (angler-hours) and catch rates (CPUE, fish per angler-hour) for rainbow
Arctic grayling, and sockege salmon from angler Interviews in the Agulowak River sport fishery, 1986.

|  |  |  | Effort |  | Rainbow Trout |  |  | Arctic Char |  |  | Arctic Graylins |  |  | Sockeye Salmon |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Date | $11$ | Slze | Mean | Std Eri | Mean | Std Err | CPUE | Mean | Std Err | CPUE | Mean | Std Etr | CPUE | Mean | Std Err | CPUE |
| 6/23 | Wd | 3 | 0.800 | 0.360 | 0.000 | 0.000 | 0.000 | 1.330 | 0.882 | 1.717 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 6124 | Wd | 13 | 1.500 | 0.230 | 0.230 | 0.231 | 0.159 | 11.920 | 5.314 | 8.197 | 0.080 | 0.077 | 0.053 | 0.000 | 0.000 | 0.000 |
| 6/28 | He | 7 | 3.000 | 0.920 | 0.570 | 0.297 | 0.193 | 2.000 | 0.951 | 0.675 | 0.430 | 0.297 | 0.145 | 0.000 | 0.000 | 0.000 |
| 7104 | We | 9 | 1.700 | 0.510 | 0.220 | 0.147 | 0.128 | 0.890 | 0.455 | 0.513 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 7105 | He | 3 | 1.600 | 0.920 | 0.000 | 0.000 | 0.000 | 0.330 | 0.333 | 0.210 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 7106 | Wd | 3 | 0.200 | 0.030 | 1.000 | 0.000 | 4.478 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 7108 | Wd | 4 | 0.800 | 0.000 | 0.000 | 0.000 | 0.000 | 2.250 | 0.250 | 3.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 7110 | Wd | 7 | 0.300 | 0.060 | 0.000 | 0.000 | 0.000 | 0.140 | 0.143 | 0.541 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 7111 | We | 6 | 0.800 | 0.050 | 0.000 | 0.000 | 0.000 | 1.830 | 0.477 | 2.200 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 7113 | Wd | 19 | 0.700 | 0.110 | 0.370 | 0.205 | 0.558 | 0.420 | 0.207 | 0.637 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 7117 | Wd | 4 | 0.800 | 0.170 | 0.250 | 0.250 | 0.315 | 0.500 | 0.500 | 0.631 | 0.000 | 0.000 | 0.000 | 0.250 | 0.250 | 0.315 |
| 7119 | We | 10 | 1.400 | 0.360 | 0.500 | 0.500 | 0.353 | 3.000 | 0.715 | 2.117 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 7120 | Wd | 26 | 1.900 | 0.400 | 0.850 | 0.307 | 0.434 | 0.850 | 0.410 | 0.434 | 0.770 | 0.542 | 0.395 | 0.000 | 0.000 | 0.000 |
| 7126 | We | 17 | 1.000 | 0.160 | 1.290 | 1.175 | 1.346 | 0.710 | 0.239 | 0.734 | 0.290 | 0.294 | 0.306 | 0.000 | 0.000 | 0.000 |
| 7127 | Wd | 8 | 0.700 | 0.140 | 0.000 | 0.000 | 0.000 | 1.630 | 0.680 | 2.293 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 7128 | Wd | 8 | 1.900 | 0.520 | 1.880 | 0.718 | 0.968 | 0.500 | 0.327 | 0.258 | 0.750 | 0.620 | 0.387 | 0.000 | 0.000 | 0.000 |
| 7130 | Wd | 12 | 0.600 | 0.090 | 0.250 | 0.131 | 0.677 | 0.000 | 0.000 | 0.000 | 0.080 | 0.083 | 0.226 | 0.000 | 0.000 | 0.000 |
| 7131 | Wd | 3 | 1.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 2.000 | 2.000 | 2.000 | 0.000 | 0.000 | 0.000 |
| 8/03 | Wd | 6 | 2.200 | 0.250 | 0.330 | 0.333 | 0.154 | 3.500 | 1.628 | 1.615 | 0.500 | 0.342 | 0.231 | 0.000 | 0.000 | 0.000 |
| $8 / 04$ | Wd | 4 | 0.600 | 0.240 | 2.000 | 2.000 | 3.419 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.250 | 0.250 | 0.427 |
| $8 / 05$ | Wd | 5 | 1.500 | 0.590 | 4.600 | 2.561 | 3.003 | 0.000 | 0.000 | 0.000 | 1.400 | 0.872 | 0.914 | 0.000 | 0.000 | 0.000 |
| 8108 | He | 6 | 2.100 | 0.440 | 4.000 | 2.221 | 1.920 | 0.000 | 0.000 | 0.000 | 3.170 | 1.424 | 1.520 | 0.000 | 0.000 | 0.000 |
| 8109 | He | 2 | 1.500 | 0.000 | 3.000 | 2.000 | 2.000 | 0.500 | 0.500 | 0.333 | 2.000 | 1.000 | 1.333 | 0.000 | 0.000 | 0.000 |
| $8 / 10$ | Hd | 6 | 3.600 | 0.580 | 1.830 | 0.601 | 0.512 | 0.670 | 0.667 | 0.186 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 8/11 | Wd | 4 | 2.300 | 0.730 | 0.000 | 0.000 | 0.000 | 1.500 | 0.866 | 0.661 | 0.000 | 0.000 | 0.000 | 0.250 | 0.250 | 0.110 |
| 8/14 | Wd | 9 | 1.300 | 0.190 | 1.000 | 0.553 | 0.800 | 0.220 | 0.222 | 0.178 | 0.110 | 0.111 | 0.089 | 0.000 | 0.000 | 0.000 |
| 8/16 | We | 5 | 1.700 | 0.120 | 0.800 | 0.374 | 0.471 | 0.600 | 0.600 | 0.353 | 0.400 | 0.400 | 0.235 | 0.200 | 0.200 | 0.118 |
| $8 / 17$ | Hd | 4 | 0.600 | 0.000 | 0.250 | 0.250 | 0.431 | 0.250 | 0.250 | 0.431 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| $8 / 18$ | Wd | 10 | 0.500 | 0.020 | 0.000 | 0.000 | 0.000 | 0.300 | 0.213 | 0.644 | 0.000 | 0.000 | 0.000 | 1.000 | 1.000 | 2.146 |
| 8120 | Wd | 3 | 0.500 | 0.000 | 0.000 | 0.000 | 0.000 | 0.330 | 0.333 | 0.667 | 0.000 | 0.000 | 0.000 | 0.330 | 0.333 | 0.667 |
| $8 / 21$ | Hd | 6 | 2.100 | 0.170 | 0.000 | 0.000 | 0.000 | 0.670 | 0.333 | 0.314 | 0.000 | 0.000 | 0.000 | 0.670 | 0.667 | 0.314 |
| $8 / 22$ | We | 9 | 0. 900 | 0.320 | 0.220 | 0.222 | 0.244 | 0.110 | 0.111 | 0.122 | 0.000 | 0.000 | 0.000 | 0.780 | 0.278 | 0.855 |
| $8 / 23$ | We | 10 | 0.300 | 0.050 | 0.000 | 0.000 | 0.000 | 0.300 | 0.153 | 1.053 | 0.000 | 0.000 | 0.000 | 0.200 | 0.200 | 0.702 |

$1 /$ Hd = Weekday; We = Weekend or holiday

Appendix Table 12. Sumary of dally angler effort (ansler-hours) and harvest rates (HPUE, fish per angler-hour) for rainbow trout, Arctic char, Arctic grayling, and sockeye salmon from angler interviewa in the Agulowak River aport fishery, 1986

|  |  |  | Effort |  | Ralnbow Trout |  |  | Arctic Char |  |  | Arctic Grayling |  |  | Sockeye Salmon |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Date | $\begin{aligned} & \text { Wd/We } \\ & \text { 1/ } \end{aligned}$ | $\begin{aligned} & \text { Sample } \\ & \text { SIze } \end{aligned}$ | Mean | Std Err | Mean | Std Err | HPUE | Mean | Std Err | EPUE | Man | Std Err | HPUE | Haan | Std Err | HPUE |
| $6 / 23$ | Wd | 3 | 0.800 | 0.360 | 0.000 | 0.000 | 0.000 | 1.000 | 0.577 | 1.288 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| $6 / 24$ | Wd | 13 | 1.500 | 0.230 | 0.000 | 0.000 | 0.000 | 1.540 | 0.595 | 1.058 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 6128 | We | 7 | 3.000 | 0.920 | 0.000 | 0.000 | 0.000 | 0.570 | 0.297 | 0.193 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 7104 | We | 9 | 1.700 | 0.510 | 0.000 | 0.000 | 0.000 | 0.890 | 0.455 | 0.513 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 7105 | He | 3 | 1.600 | 0.920 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 7106 | Wd | 3 | 0.200 | 0.030 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 7108 | Wd | 4 | 0.800 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 7/10 | Wd | 7 | 0.300 | 0.060 | 0.000 | 0.000 | 0.000 | 0.140 | 0.143 | 0.541 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 7111 | We | 6 | 0.800 | 0.050 | 0.000 | 0.000 | 0.000 | 1.170 | 0.477 | 1.400 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 7113 | Wd | 19 | 0.700 | 0.110 | 0.160 | 0.086 | 0.239 | 0.110 | 0.105 | 0.159 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 7117 | Wd | 4 | 0.800 | 0.170 | 0.000 | 0.000 | 0.000 | 0.500 | 0.500 0.650 | 0.631 1.411 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 | 0.250 0.000 | 0.250 0.000 | 0.315 0.000 |
| 7120 | Wd | 26 | 1.900 | 0.400 0.160 | 0.040 0.000 | 0.038 0.000 | 0.020 0.000 | 0.080 0.290 | 0.053 0.166 | 0.039 | 0.000 0.000 | 0.000 0.000 | 0.000 | 0.000 | 0.000 | 0.000 0.000 |
| 7126 | We | 17 | 1.000 0.700 | 0.160 0.140 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 | 0.290 0.130 | 0.166 0.125 | 0.306 0.176 | 0.000 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 7127 | Wd | 8 | 0.700 1.900 | 0.140 0.520 | 0.000 0.500 | 0.000 0.327 | 0.000 0.258 | 0.130 0.130 | 0.125 | 0.065 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 7128 7130 | Wd | 8 12 | 1.900 0.400 | 0.520 0.090 | 0.500 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 7131 | Wd | 3 | 1.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 8103 | Wd | 6 | 2.200 | 0.250 | 0.000 | 0.000 | 0.000 | 0.330 | 0.211 | 0.154 | 0.330 | 0.333 | 0.154 | 0.000 | 0.000 | 0.000 |
| 8104 | Wd | 4 | 0.600 | 0.240 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.250 | 0.250 | 0.427 |
| 8105 | Wd | 5 | 1.500 | 0.590 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 8/08 | We | 6 | 2.100 | 0.440 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| $8 / 09$ | We | 2 | 1.500 | 0.000 | 0.000 | 0.000 | 0.000 | 0.500 | 0.500 | 0.333 | 0.500 | 0.500 | 0.333 | 0.000 | 0.000 | 0.000 |
| 8/10 | Wd | 6 | 3.600 | 0.580 | 0.170 | 0.167 | 0.047 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 |
| 8/11 | Wd | 4 | 2.300 | 0.730 | 0.000 | 0.000 | 0.000 | 0.500 | 0.289 | 0.220 | 0.000 | 0.000 0.000 | 0.0000 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 |
| 8/14 | Wd | 9 | 1.300 | 0.190 | 0.000 | 0.000 | 0.000 | 0.220 | 0.222 |  |  | 0.000 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| $8 / 16$ | We | 5 | 1.700 | 0.120 | 0.000 | 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 8118 8120 | Wd | 10 | 0.500 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 8/21 | Wd | 6 | 2.100 | 0.170 | 0.000 | 0.000 | 0.000 | 0.170 | 0.167 | 0.078 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| $8 / 22$ | We | 9 | 0.900 | 0.320 | 0.000 | 0.000 | 0.000 | 0.110 | 0.111 | 0.122 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| $8 / 23$ | We | 10 | 0.300 | 0.050 | 0.000 | 0.000 | 0.000 | 0.100 | 0.100 | 0.351 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |


|  | $\begin{gathered} \mathrm{Hd} / \mathrm{We} \\ 1 / \end{gathered}$ | $\begin{aligned} & \text { Semplele } \\ & \text { SIIe } \end{aligned}$ | Effort |  | Rainbow Trout |  |  | arctic Char |  |  | Arctic Grayling |  |  | Sockeye Salmon |  |  | Coho Salmon |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Mean | Std Err | Mean | Std Err | CPUE | Mean | Std Err | CPUE | Mean | Std Err | CPUE | Mean | ed Err | CPUE | Mean | Std Err | CPUE |
| Date |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 6106 | We | 1 | 2.000 | 0.620 0.450 | 0.170 0.000 | 0.167 0.000 | 0.082 0.000 | 2.000 2.180 | 0.856 1.205 | 0.987 | 0.000 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 6107 | We | 11 | 2.000 | 0.450 |  | 0.000 0.000 | 0.000 0.000 | 2.180 1.330 | 1.288 0.882 | 0.707 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| $6 / 11$ | Hd | 3 | 1.900 | 1.560 | 0.000 | 0.000 0.289 | 0.000 0.300 | 1.000 | 0.707 | 0.615 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 6/12 | Hd | 4 | 1.600 | 0.520 | 0.500 | O. 289 0.000 | 0.300 0.000 | 0.500 | 0.500 | 0.571 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| $6 / 17$ | Hd | 2 | 0.900 | 0.630 | 0.000 | 1.000 | 4.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| $6 / 19$ | wd | 2 | 0.500 | 0.000 | 2.000 | 1.200 | . 0.071 | 6.400 | 2.749 | 2.286 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| $6 / 21$ | We | 5 | 2.800 | 0.690 | 0.200 2.750 | 1.601 | 0.846 | 5.000 | 2.887 | 1.538 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 6124 | Wd | 4 | 3. 300 | 0.600 | 2.750 | 1.601 |  | 0.630 | 0.625 | 0.125 | 0.380 | 0.263 | 0.075 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 6125 | Wd | 8 | 5.000 | 0.330 | 1.750 0.000 | 0.901 0.000 | 0. 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | . 000 | 0.000 |
| $6 / 27$ | We | 19 | 0. 200 | 0.020 | 0.000 | 0.000 | 0.000 | 1.750 | 1.181 | 1.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 7103 | He | 4 | 1.800 | 0.430 0.000 | 0.000 | 0.000 | 0.000 | 1.000 | 1.000 | 0.667 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 7105 | We | ${ }_{8}$ | 1.500 0.900 | 0.250 | 0.000 | 0.000 | 0.000 | 0.500 | 0.327 | 0.571 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 0.000 | 0.000 | 0.000 | 0.000 0.000 |
| 7107 | Wd | 5 | 0.300 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 0.316 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 7108 | Hd | 8 | 2.400 | 0.410 | 1.250 | 0.491 | 0.526 | 2.000 | 0.463 | 0.842 0.545 | 0.500 | 0.289 | 0.364 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 7109 | Wd | 4 | 1.400 | 0.380 | 0.250 | 0. 250 | 0.182 | 1.000 | 1. 2000 | 0.222 | 1.000 | 1.000 | 0.222 | 0.500 | 0.500 | 0.111 | 0.000 | 0.000 | 0.000 |
| 7110 | H | 2 | 4.500 | 0.000 | 0.500 | 0.500 0.256 | 0.111 | 1.920 | 3.645 | 0.985 | 0.000 | 0.000 | 0.000 | 0.080 | 0.083 | 0.043 | 0.080 | 0.083 | . 043 |
| 7111 | We | 12 | 1.900 | 0.350 | 0.330 | 0.256 | 0.17 | 2.000 | 0.888 | 1.333 | 0.330 | 0.142 | 0.222 | 0.080 | 0.083 | 0.056 | 0.000 | . 000 | 0.000 |
| 7112 | We | 12 | 1.500 | 0.150 | 0.330 | 0.256 | 0.222 | 2.000 1.670 | 0.888 0.882 | 1.111 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1115 | Wd | 3 | 1.500 | 0.000 | 0.000 | 0.000 |  | 1.600 | 0.000 |  | 2.330 | 0.333 | 0.778 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| $1 / 16$ | Wd | 3 | 3.000 | 0.000 | 0.670 | 0. 333 | 0.222 | 3.000 | 0.000 | 3.000 | 2.000 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| $1 / 18$ | We | 2 | 1.000 | 0.000 | 0.000 | 0.000 |  | 1.0070 | 0.450 | 0.923 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1125 | we | 14 | 1.200 | 0.230 | 0.140 | 0.143 | 0.123 0.000 | $\underline{2.170}$ | 0.703 | 1.083 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 7126 | We | 6 | 2.000 | 0.670 | 0.000 | 0.000 | 0.000 | 2.880 | 0. 0.934 | 0.682 | 0.130 | 0.125 | 0.045 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 7128 | Hd | 8 | 2.800 | 0. 460 | 0.630 | 0.263 | 0.227 0.113 | 1.880 0.330 | 0.934 | 0.226 | 0.080 | 0.083 | 0.057 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| $8 / 01$ | We | 12 | 1.500 | 0.290 | 0.170 | 0.112 | 0.113 | - 0.5300 | 0.250 | 0.125 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 8104 | Wd | 2 | 4.000 | 0.000 | 6.000 | 0.000 | ${ }_{0}^{1.300}$ | O. 250 | 0.250 | 0.333 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| $8 / 06$ | Wd | 4 | 0.800 | 0.000 | 0.250 | 0.238 | 1.353 0.628 | 0.070 | 0.071 | 0.105 | 0.070 | 0.071 | 0.105 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 8107 | wd | 14 | - 0.700 | 0.120 | 6. 6000 | 3.215 | 1.059 | 0.000 | 0.000 | 0.000 | 0.330 | 0.333 | 0.059 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| $8 / 12$ | d | 3 | 3.000 |  |  | 0.374 | 0.267 | 1.000 | 0.447 | 0.333 | 0.200 | 0.200 | 0.067 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |  |
| $8 / 13$ | Wd | 5 | 3.000 2.700 | 0. 0.550 | 2.600 | 1.046 | 0.972 | 0.700 | 0.367 | 0.262 | 0.100 | 0.100 | 0.037 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0. 000 |
| $8 / 14$ | u | 10 |  |  |  | 0.342 | 0.240 | 0.500 | 0.224 | 0.240 | 1.000 | 1.000 | 0.480 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |  |
| $8 / 15$ | We | 6 | 2.100 1.800 | 1.250 | 2.500 | 2.500 | 1.429 | 0.500 | 0.500 | 0.286 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| $8 / 17$ | Wd | ${ }_{8}^{2}$ | 1.800 1.200 | 1.250 |  | 0.250 | 0.205 | 0.250 | 0.164 | 0.205 | 0.130 | 0.125 | 0.103 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| $8 / 19$ | ud | 8 | 1.200 1.000 | O. 280 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| $8 / 20$ | Hd | 4 | 1.000 0.800 | 0.000 0.250 |  | 0.000 | 0.000 | 0.670 | 0.494 | 0.889 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| $8 / 21$ | Hd | 6 | 1.800 2.000 | O.290 | 0.130 | 0.125 | 0.062 | 0.500 | 0.378 | 0.249 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| $8 / 22$ | W* | 8 | 2.000 2.000 |  | 6.000 |  | 3.000 | 0.500 | 0.500 | 0.250 | 0.000 | 0.000 | 0.000 | 0.500 | 0.500 | 0.250 | 0.000 | 0.000 | 0.000 |
| 8124 | Wd | 2 | 2.000 1.700 | 0.000 0.340 | 6.000 1.620 | 0.931 | 0.955 | 0.310 | 0.175 | 0.182 | 0.230 | 0.231 | 0.136 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| $8 / 29$ | No | 13 | 1.700 0.900 | 0.540 | 1.200 | 0.583 | 1.386 | 0.200 | 0.200 | 0.231 | 0.200 | 0.200 | 0.231 | 0.000 | 0.000 | 0.000 | 0.000 | -0.000 |  |
| 8/30 | He | 4 | 1.000 | 0.000 | 1.000 | 0.577 | 1.000 | 0.250 | 0.250 | 0.250 | 0.000 | 0.000 | 0.000 | 0.000 |  |  |  |  |  |



|  |  |  | Effort |  | Ralnbow Trout |  |  | Arctic Char |  |  | Arctic Graylins |  |  | Sockeye Salmon |  |  | Coho Salmon |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Date | $\mathrm{Wd} / \mathrm{We}$ | Sample | Hean | Std Erx | Moan | Std Err | HPUE | Mean | Std Err | hpus | Mean | Std Err | hPUE | Man | Std Err | HPUE | Heas | std Er | EP |
| $6 / 06$ | We | 6 | 2.000 | 0.620 | 0.170 | 0.167 | 0.082 | 0.500 | 0.342 | 0.247 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.0 |
| 6107 | We | 11 | 2.000 | 0.450 | 0.000 | 0.000 | 0.000 | 0.360 | 0.244 | 0.179 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.0 |
| $6 / 11$ | wd | 3 | 1.900 | 1.560 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.0 |
| $6 / 12$ | Hd | 4 | 1.600 | 0.320 | 0.250 | 0.250 | 0.154 | 0.500 | 0.500 | 0.308 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.0 |
| $6 / 17$ | Wd | 2 | 0.900 | 0.630 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.0 |
| $6 / 19$ | Wd | 2 | 0.500 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.0 |
| $6 / 21$ | We | 5 | 2.800 | 0.490 | 0.000 | 0.000 | 0.000 | 2.000 | 0.447 | 0.714 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.0 |
| $6 / 24$ | Wd | 4 | 3.300 | 0.600 | 0.000 | 0.000 | 0.000 | 0.750 | 0.479 | 0.231 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.0 |
| $6 / 25$ | wd | 8 | 5.000 | 0.330 | 0.380 | 0.263 | 0.075 | 0.500 | 0.500 | 0.100 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.0 |
| $6 / 27$ | We | 19 | 0.200 | 0.020 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.0 |
| 1103 | We | 4 | 1.800 | 0.630 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.0 |
| 1104 | We | 2 | 1.500 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.0 |
| 7105 | We | 8 | 0.900 | 0.250 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.0 |
| 1107 | Hd | 5 | 0.300 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.0 |
| 7108 | wd | 8 | 2.400 | 0.410 | 2.000 | 0.327 | 0.421 | 1.000 | 0.567 | 0.421 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.0 |
| 1109 | wd | + | 1.400 | 0.380 | 0.000 | 0.000 | 0.000 | 0.250 | 0.250 | 0.182 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.0 |
| 7110 | Wd | 2 | 4.500 | 0.000 | 0.000 | 0.000 | 0.000 | 0.500 | 0.500 | 0.111 | 0.000 | 0.000 | 0.000 | 0.500 | 0.500 | 0.111 | 0.000 | 0.000 | 0.0 |
| $7 / 11$ | We | 12 | 1.900 | 0.350 | 0.000 | 0.000 | 0.000 | 0.330 | 0.142 | 0.171 | 0.000 | 0.000 | 0.000 | 0.080 | 0.083 | 0.043 | 0.080 | 0.083 | 0.0 |
| $1 / 12$ | We | 12 | 1.500 | 0.150 | 0.080 | 0.083 | 0.056 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.0 |
| 7115 | Wd | 3 | 1.300 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.0 |
| 1116 | wd | 3 | 3.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.0 |
| 7118 | W. | 2 | 1.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.0 |
| 7125 | We | 14 | 1.200 | 0.230 | 0.000 | 0.000 | 0.000 | 0.140 | 0.097 | 0.123 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.0 |
| 7126 | We | 6 | 2.000 | 0.670 | 0.000 | 0.000 | 0.000 | 0.170 | 0.167 | 0.083 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |  | 0.0 |
| 7128 | Wd | 8 | 2.800 | 0.440 | 0.130 | 0.125 | 0.045 | 0.380 | 0.263 | 0.136 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.0 |
| 8101 | We | 12 | 1.500 | 0.290 | 0.080 | 0.083 | 0.057 | 0.080 | 0.083 | 0.057 | 0.080 | 0.083 | 0.057 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.0 |
| $8 / 04$ | Wd | 2 | 4.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.0 |
| $8 / 06$ | wd | 4 | 0.800 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.0 |
| $8 / 07$ | wd | 14 | 0.700 | 0.120 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.0 |
| $8 / 12$ | Wd | 3 | \$. 700 | 2.330 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.0 |
| $8 / 13$ | Wd | 5 | 3.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.0 |
| 8114 | wd | 10 | 2.700 | 0.550 | 0.000 | 0.000 | 0.000 | 0.300 | 0.213 | 0.112 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |  | 0.0 |
| $8 / 15$ | We | 6 | 2.100 | 0.860 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.0 |
| 8117 | wd | 2 | 1.800 | 1.250 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.0 |
| $8 / 19$ | Wd | 8 | 1.200 | 0.240 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.0 |
| 8120 | Wd | , | 1.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.0 |
| 8121 | Wd | 6 | 0.800 | 0.250 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.0 |
| 8122 | He | 8 | 2.000 | 0.290 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.0 |
| 8124 | Wd | 2 | 2.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.0 |
| 8129 | We | 13 | 1.700 | 0.340 | 0.150 | 0.154 | 0.091 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.0 |
| 130 | We | 5 | 0.900 | 0.540 | 1.000 | 0.447 | 1.155 | 0.200 | 0.200 | 0.231 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 | 0. 0.000 | 0.0 |
| 9107 | We | 4 | 1.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.0 |

1/ $w$ = Weakday; We - Weekend or holiday

Appendix Table 15. Sumary of daily angler effort (angler-hours) and catch rates (CPUE, fish per angler-hour) for rainbow trout, Arctic char, Arctic grayling, and sockeye salmon from angler interviews in the Agulowak River sport fishery, 1988

|  |  |  | Effort |  | Ralnbow Trout |  |  | Arctic Char |  |  | Arctic Grayling |  |  | Sockeye Salmon |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Date | $1 /$ | Slae | Mean | Std Err | Mean | Std Err | CPUE | Mean | Std Eri | CPUE | Mean | Std Err | CPUE | Mean | Std Eri | CPUE |
| 612 | We | 8 | 1.500 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 613 | Wd | 3 | 1.500 | 0.000 | 0.670 | 0.333 | 0.444 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 614 | Wd | 4 | 1.300 | 0.050 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 621 | Wd | 7 | 2.500 | 0.530 | 0.140 | 0.143 | 0.057 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 624 | Wd | 5 | 2.200 | 0.780 | 0.400 | 0.245 | 0.179 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 625 | We | 8 | 1.800 | 0.050 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.130 | 0.125 | 0.068 | 0.000 | 0.000 | 0.000 |
| 626 | We | , | 1.700 | 1.420 | 1.000 | 0.707 | 0.572 | 0.000 | 0.000 | 0.000 | 0.250 | 0.250 | 0.143 | 0.000 | 0.000 | 0.000 |
| 628 | Wd | 6 | 2.700 | 0.740 | 1.330 | 0.989 | 0.503 | 0.000 | 0.000 | 0.000 | 2.670 | 2.472 | 1.006 | 0.000 | 0.000 | 0.000 |
| 702 | We | 7 | 1.200 | 0.290 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 103 | We | 11 | 0.600 | 0.260 | 0.180 | 0.122 | 0.330 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 704 | He | 7 | 1.600 | 0.350 | 0.140 | 0.143 | 0.089 | 0.000 | 0.000 | 0.000 | 2.570 | 2.571 | 1.600 | 0.000 | 0.000 | 0.000 |
| 707 | Wd | 7 | 3.000 | 0.940 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.140 | 0.143 | 0.047 | 0.000 | 0.000 | 0.000 |
| 708 | Wd | 11 | 2.700 | 0.470 | 2.180 | 0.952 | 0.804 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 709 | We | 23 | 1.800 | 0.320 | 0.390 | 0.265 | 0.221 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 710 | We | 19 | 1.300 | 0.130 | 0.050 | 0.053 | 0.042 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 712 | Hd | 7 | 1.800 | 0.550 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.140 | 0.143 | 0.077 | 0.000 | 0.000 | 0.000 |
| 714 | Wd | 11 | 1.100 | 0.310 | 0.550 | 0.312 | 0.511 | 0.000 | 0.000 | 0.000 | 0.180 | 0.122 | 0.170 | 0.000 | 0.000 | 0.000 |
| 715 | Wd | 3 | 1. 600 | 0.620 | 0.670 | 0.333 | 0.429 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 716 | We | 16 | 1. 200 | 0.310 | 0.380 | 0.202 | 0.323 | 0.000 | 0.000 | 0.000 | 0.130 | 0.125 | 0.108 | 0.000 | 0.000 | 0.000 |
| 718 | Hd | 9 | 4. 200 | 0.740 | 10.330 | 2.186 | 2.464 | 0.000 | 0.000 | 0.000 | 2.670 | 0.667 | 0.636 | 0.000 | 0.000 | 0.000 |
| 730 | He | 6 | 2.200 | 0.110 | 4.500 | 2.754 | 2.077 | 0.000 | 0.000 | 0.000 | 3.830 | 1.493 | 1.769 | 0.000 | 0.000 | 0.000 |
| 731 | He | 6 | 0.800 | 0.120 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 802 | Wd | 4 | 1.300 | 0.430 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 803 | Wd | 4 | 3.100 | 0.060 | 0. 500 | 0.289 | 0.163 | 0.000 | 0.000 | 0.000 | 0.250 | 0.250 | 0.082 | 0.000 | 0.000 | 0.000 |
| 804 805 | Hd | 4 | 6.000 | 0.000 | 8.750 | 3.146 | 1.458 | 0.000 | 0.000 | 0.000 | 5.250 | 1.109 | 0.875 | 0.000 | 0.000 | 0.000 |
| 805 807 | Wd | 9 | 2. 900 | 0.400 | 3.670 | 0.645 | 1.245 | 0.000 | 0.000 | 0.000 | 1. 780 | 0.547 | 0.604 | 0.000 | 0.000 | 0.000 |
| 807 | We | ${ }^{8}$ | 2.200 | 0.800 | 3.880 | 1.856 | 1.753 | 0.000 | 0.000 | 0.000 | 3.250 | 1.934 | 1.471 | 0.500 | 0.500 | 0.226 |
| 808 809 | Hd | 10 | 1.800 | 0.150 | 2.500 | 1.293 | 1.429 | 0.000 | 0.000 | 0.000 | 2.700 | 1.469 | 1.543 | 0.000 | 0.000 | 0.000 |
| 809 | Wd | 11 | 3. 200 | 0.930 | 5.000 | 2.067 | 1.556 | 0.000 | 0.000 | 0.000 | 2.910 | 1.194 | 0.905 | 0.270 | 0.273 | 0.085 |
| 810 | Hd | 2 | 3.000 | 1.000 | 6.000 | 0.000 | 2.000 | 0.000 | 0.000 | 0.000 | 3.000 | 1.000 | 1.000 | 0.000 | 0.000 | 0.000 |
| 812 | Wd | 6 | 4.300 | 0.670 | 13.170 | 2.613 | 3.038 | 0.000 | 0.000 | 0.000 | 3.670 | 0.843 | 0.846 | 0.000 | 0.000 | 0.000 |
| 814 | He | + | 2.800 | 0.250 | 5.500 | 2.217 | 2.000 | 0.000 | 0.000 | 0.000 | 2.250 | 1.315 | 0.818 | 0.000 | 0.000 | 0.000 |
| 815 | Wd | 2 | 2.000 | 0.000 | 2. 500 | 1.500 | 1.250 | 0.000 | 0.000 | 0.000 | 5.500 | 2.500 | 2.750 | 0.000 | 0.000 | 0.000 |
| 819 | Wd | 3 | 0.800 | 0.140 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 820 | He | 4 | 2.500 | 0.000 | 4.000 | 1.225 | 1.600 | 0.000 | 0.000 | 0.000 | 1.750 | 0.479 | 0.700 | 0.000 | 0.000 | 0.000 |
| 821 | We | 14 | 0.900 | 0.110 | 0.640 | 0.248 | 0.701 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.140 | 0.097 | 0.156 |
| 826 | Wd | 15 | 1.600 | 0.160 | 0.130 | 0.091 | 0.083 | 0.000 | 0.000 | 0.000 | 0.200 | 0.107 | 0.125 | 0.070 | 0.067 | 0.042 |
| 827 | We | 4 | 0.600 | 0.040 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 828 | We | 6 | 1.300 | 0.170 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.500 | 0.500 | 0.400 |
| 829 | Wd | 2 | 3.300 | 0.250 | 4.000 | 0.000 | 1.231 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1.000 | 1.000 | 0.308 |
| 901 | Wd | 3 | 1.300 | 0.620 | 0.670 | 0.667 | 0.533 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 902 | Wd | 16 | 2.800 | 0.400 | 2.060 | 0.528 | 0.731 | 0.000 | 0.000 | 0.000 | 1.130 | 0.315 | 0.399 | 0.130 | 0.085 | 0.044 |
| 903 | We | 10 | 2.700 | 0.150 | 2.700 | 1.446 | 1.000 | 0.000 | 0.000 | 0.000 | 0.200 | 0.200 | 0.074 | 0.400 | 0.221 | 0.148 |
| 904 | He | 7 | 1.700 | 0.420 | 0.710 | 0.474 | 0.414 | 0.000 | 0.000 | 0.000 | 0.570 | 0.429 | 0.331 | 0.000 | 0.000 | 0.000 |
| 905 | We | 10 | 0.800 | 0.110 | 0.100 | 0.100 | 0.121 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 906 | Wd | 2 | 2.000 | 0.000 | 1.000 | 1.000 | 0.500 | 0.000 | 0.000 | 0.000 | 0.500 | 0.500 | 0.250 | 0.000 | 0.000 | 0.000 |

1/ wd = Weekday; we = Weekend or holiday

Appendin Table 16. Sumary of dally angler effort (angler-houra) and harveat rates (APUE, fish par angler-hour) for rainbow trout, Arctic char,

|  |  | Effort |  |  | Rainbov Trout |  |  | Arctic Char |  |  | Arctic Grayling |  |  | Sockere Salmon |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Date | Wd/He | $\begin{gathered} \text { Sample } \\ \text { Slze } \end{gathered}$ | Mean | Std Err | Mean | Std Err | HPUE | Han | Std Err | HPUE | Man | Std Err | EPUE | Mean | Std Err | HPUE |
|  |  |  |  |  |  |  |  |  |  |  | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 612 | He | 8 | 1.500 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 | 0.000 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 613 | ${ }^{\mathbf{N d}}$ | 3 | 1.500 | 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 614 | ${ }_{H d}$ | 4 | 1.300 | 0.050 0.530 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 621 | Wd | 7 | 2.500 | 0.530 0.780 | 0.000 0.200 | 0.000 | 0.090 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 624 | Wd | 8 | 2.200 1.800 | 0.780 0.050 | 0.200 | 0.2000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 625 | We | 8 | 1.800 1.700 | 0.050 1.420 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 628 | Wd | 6 | 2.700 | 0.740 | 0.330 | 0.333 | 0.126 | 0.000 | 0.000 | 0.000 | 0.170 | 0.167 | 0.063 | 0.000 | 0.000 | 0.000 0.000 |
| 702 | He | 7 | 1.200 | 0.290 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 703 | We | 11 | 0.600 | 0.260 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 704 | He | 7 | 1.600 | 0.350 | 0.140 | 0.143 | 0.089 | 0.000 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 707 | Wd | 7 | 3.000 | 0.940 | 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 708 | Wd | 11 | 2.700 | 0.470 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 709 | We | 23 | 1.800 | 0.320 0.130 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 710 | We | 19 | 1.300 1.800 | 0.130 0.550 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 712 | ${ }^{\mathbf{H}}$ | 1 | 1.800 1.100 | 0.550 0.310 | 0.0000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 714 | Hd | 11 | 1.100 1.600 | 0.310 0.620 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 716 | We | 16 | 1.200 | 0.310 | 0.250 | 0.171 | 0.215 | 0.000 | 0.000 | 0.000 | 0.130 | 0.125 | 0.108 | 0.000 | 0.000 | 0.000 0.000 |
| 118 | Wd | 9 | 4.200 | 0.740 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 730 | He | 6 | 2.200 | 0.110 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 731 | We | 6 | 0.800 | 0.120 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 802 | Wd | 4 | 1.300 | 0.430 | 0.000 | 0.250 | 0.082 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 803 | Wd | 4 | 3.100 | 0.060 0.000 | 0.250 0.000 | 0.250 0.000 | 0.082 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 804 | Wd | $\stackrel{\square}{6}$ | 6.000 | 0.000 0.400 | 0.000 0.000 | 0.000 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 805 | Wd | 9 | 2.900 2.200 | 0.400 0.800 | 0.000 0.000 | 0.000 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 807 | We | ${ }^{8}$ | 2.200 1.800 | 0.800 0.150 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 808 | Wd | 110 | 1.800 3.200 | 0.150 0.930 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 8810 | Wd | 1 | 3.000 | 1.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 0.000 | 0.000 | 0.000 0.000 |
| 812 | Wd | 6 | 4.300 | 0.670 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 |
| 814 | We | 4 | 2.800 | 0.250 | 0.000 | 0.000 | 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 815 | Wd |  | 2.000 | 0.000 | 0.000 | 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 819 | Wd | 3 | 0.800 | 0.140 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 820 | We | 4 | 2.500 | 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 821 | We | 14 | 0.900 1.600 | 0.110 0.160 | 0.000 0.000 | 0.000 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 826 | Wd | 15 | 1.600 0.600 | 0.160 0.040 | 0.000 0.000 | 0.000 0.000 | 0.000 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 827 | He | 4 | 0.600 1.300 | 0.040 0.170 | 0.000 0.000 | 0.000 0.000 | 0.0000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 828 | We | 6 | 1.300 3.300 | 0.170 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 829 |  | 3 | 1.300 1.300 | 0.620 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 901 | Wd | 16 | 1.300 2.800 | 0.400 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 0.148 |
| 903 | We | 10 | 2.700 | 0.150 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.400 | 0.220 | 0.148 0.000 |
| 904 | He | 7 | 1.700 | 0.420 | 0.290 | 0.286 | 0.166 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 905 | He | 10 | 0.800 | 0.110 | 0.100 | 0.100 | 0.121 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 906 | Hd | 2 | 2.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |  |  |  |  |  |  |  |

$1 /$ Wd = Weekday; We = Weekend or holiday.


[^0]:    1 Standard error.

