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November 19, 2012

Dear Western Alaska fishery stakeholder;

I am pleased to announce publication of results from the Western Alaska Salmon Stock Identification Program (WASSIP), a unique collaboration among stakeholders and scientists to address long-standing questions about harvest patterns of chum and sockeye salmon in Western Alaska fisheries. Spanning more than eight years, WASSIP is the largest salmon genetics study ever attempted, analyzing more than 225,000 samples to determine stock-specific compositions, harvests, and harvest rates of sockeye and chum salmon in subsistence and commercial fisheries from Chignik to Kotzebue.

Complete WASSIP results are contained in nine reports. Foundation for the study is presented in five reports documenting fishery sampling, genetic baselines for each species, and estimated stock-specific escapements for each species. Results of mixed stock fishery analyses are contained within two reports for each species: one documenting estimated stock compositions from genetic analyses; and one providing estimates of stock-specific harvest numbers and harvest rates for chum and sockeye salmon in WASSIP fisheries. The two reports for each species are intimately connected. Stock composition of fishery catches show percentage of harvest represented by various stocks in WASSIP fisheries. These stock percentages were applied to the number of fish harvested in the fisheries to determine stock-specific harvest numbers. Stock-specific harvest numbers for each WASSIP fishery were divided by the total run for each stock to determine the harvest rate. It is essential that stock composition, harvest, and harvest rate results for each species be considered together to gain a complete understanding and full context of study results. All reports can be accessed on the Alaska Department of Fish and Game website (<http://www.adfg.alaska.gov/index.cfm?adfg=wassip.reports>).

While these results cannot address all questions surrounding fishery impacts on chum and sockeye salmon stocks across this vast geography, WASSIP provided opportunity for representatives of major regional fishery interests to collaborate with technical experts on design of scientific studies to inform regulatory decisions. The many genetic and biometric advances achieved in the project, and the astounding magnitude of sampling efforts, will contribute to our basic understanding of Western Alaska chum and sockeye salmon stocks for many years to come.

Sincerely,

Eric C. Volk

Alaska Department of Fish and Game  
WASSIP Advisory Panel Chair

Special Publication No. 12-22

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## Stock Composition of Sockeye Salmon Harvests in Fisheries of the Western Alaska Salmon Stock Identification Program (WASSIP), 2006-2008

by

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and

**William D. Templin**

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November 2012

Alaska Department of Fish and Game

Divisions of Sport Fish and Commercial Fisheries





***SPECIAL PUBLICATION NO. 12-22***

**STOCK COMPOSITION OF SOCKEYE SALMON HARVESTS IN  
FISHERIES OF THE WESTERN ALASKA SALMON STOCK  
IDENTIFICATION PROGRAM (WASSIP), 2006-2008**

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## ABSTRACT

Uncertainty about the magnitude, frequency, location, and timing of stock-specific sockeye and chum salmon harvest in Western Alaska fisheries was the impetus for the Western Alaska Salmon Stock Identification Program (WASSIP). The program was designed to use genetic data in mixed stock analysis of fisheries samples to more clearly describe harvest patterns of sockeye and chum salmon stocks in Western Alaska fisheries (from Chignik Area to Kuskokwim Area for sockeye salmon). Stock composition estimates for temporal strata across fisheries are required to estimate stock-specific harvest numbers and rates. This report describes the methodology used to estimate stock compositions for sockeye salmon, presents stock composition estimates, and provides guidance on how to interpret biases documented in the genetic baseline. While 81,482 tissue samples from 216 strata were originally selected, 83,393 samples from 217 strata were included in final analyses. Trends in stock composition estimates were observed across fisheries and within and among years. The majority of catches within Chignik, Bristol Bay, and Kuskokwim areas consisted of stocks originating in those areas. Alaska Peninsula Area fisheries catches were more diverse. In Southeastern District Mainland fisheries, South Peninsula, Chignik, and East of WASSIP stocks were most represented. In the June Shumagin Island Section, Ikatan area, and Unimak District fisheries, Bristol Bay stocks were most represented. The June Dolgoi Islands fishery captured mostly Bristol Bay, Chignik, and East of WASSIP stocks. Post-June fisheries along the South Peninsula captured fewer Bristol Bay stocks and more Chignik and East of WASSIP stocks than June fisheries, with strong contributions from all three. Stock compositions of North Peninsula fisheries were mostly North Peninsula stocks in the western sections of the District and transitioned to mostly Bristol Bay stocks in the eastern sections. These results provide the most comprehensive examination of stock compositions across Western Alaska sockeye salmon fisheries.

Key words Western Alaska Salmon Stock Identification Program, WASSIP, sockeye salmon, stock composition, mixed stock analysis, MSA, genetic stock identification, GSI

## INTRODUCTION

Sockeye salmon *Oncorhynchus nerka* are Alaska's most commercially valuable salmonid, and the majority originate from and are harvested in Western Alaska (Eggers and Carroll 2011; Bugaev et al. 2008). The combination of sockeye salmon life history, migratory pathways and the geography of Western Alaska create potential for harvesting populations originating from river systems throughout the region as they return to natal streams. While a majority of sockeye salmon harvest in Western Alaska occurs in terminal and inriver fisheries, where nonlocal harvest is minimal (e.g., Bristol Bay; Dann et al. 2009), the harvest of nonlocal populations does occur and can bias estimates of total run and stock productivity.

The Western Alaska Salmon Stock Identification Program (WASSIP) is a stakeholder driven program to extensively sample commercial and subsistence fisheries across Western Alaska. It was designed to use genetic data in mixed stock analysis (MSA) to estimate stock proportions, stock-specific harvest numbers and harvest rates of component sockeye and chum salmon stocks in these fishery mixtures. This report summarizes estimated proportions of sockeye salmon stocks in WASSIP fisheries. Details of WASSIP structure, process, and objectives can be found in Habicht et al. (2012a) and Munro et al. (2012).

MSA has been used effectively for Pacific salmon—and specifically for sockeye salmon—to estimate stock compositions in mixtures of fish from unknown origins. Early work was based on allozymes and covered more restricted geographic ranges, while more recent work is based on microsatellites and/or single nucleotide polymorphisms (SNPs) and covers broader geographic ranges. Population structure and/or MSA has been investigated in sockeye salmon within Bristol Bay (Habicht et al. 2007; Dann et al. 2009), Cook Inlet (Grant et al. 1980; Seeb et al. 2000, Barclay et al. 2010), Kuskokwim River (McPhee et al. 2009), British Columbia (Wood 1987a, 1987b, 1989, 1994; Beacham et al. 2004a, 2004b), and throughout the Pacific Rim (Varnavskaya et al. 1994; Beacham et al. 2005, 2006; Wood et al. 2008; Habicht et al. 2010).

The two foundational elements of MSA include: 1) samples taken from fishery catches (catch samples), and 2) the genetic characterization of all stocks that might contribute to the fishery (genetic baseline). Catch samples for sockeye salmon from 307 fishery strata were reported in Eggers et al. (2011). These strata were distributed across time within fisheries from Chignik Area to Kuskokwim Area (Figure 1). A total of 182,523 samples were collected from 2006 to 2009, however, only samples from 2006 to 2008 were analyzed due to funding limitations. A total of 81,932 samples were selected to be analyzed from 216 strata for analysis over the 3-year period (Eggers et al. 2011).

The genetic baseline used to analyze WASSIP catch samples extends from Bering Lake near Cape Suckling to Salmon Lake on the Seward Peninsula (along a coastline of approximately 6,000 km; Figure 1; Dann et al. 2012a). This baseline includes 39,205 individuals from 450 collections representing 294 populations. Individuals were assayed at 96 SNP markers that represented 91 loci. Genetic structure was adequate for MSA to provide estimates to 24 subregional reporting groups within 7 regional reporting groups of interest to the WASSIP Advisory Panel (Table 2 and Figure 1 in Dann et al. 2012a).

Here we report on genetic analyses of selected catch samples and stock compositions of these catch samples using MSA, anchored by the genetic baseline described in Dann et al. (2012a). Stock compositions are reported as percentages of the harvest based on catch samples. Stock-specific composition estimates are not combined across fishery strata (across fishing periods or districts), because harvest numbers are necessary to provide weights when calculating summary estimates. Extrapolation of these percentages to stock-specific numbers of harvested fish and to stock-specific harvest rates is reported in Habicht et al. (2012a).

## DEFINITIONS

To reduce confusion associated with the methods, results, and interpretation of this study, basic definitions of commonly used genetic and salmon management terms are offered here.

*Allele.* Alternative form of a given gene or DNA sequence.

*Credibility Interval.* In Bayesian statistics, a credibility interval is a posterior probability interval. Credibility intervals differ from the confidence intervals in frequentist statistics in that they are a direct statement of probability: i.e. a 90% credibility interval has a 90% chance of containing the true answer.

*District.* Waters open to commercial salmon fishing. Commercial fishing districts, subdistricts and sections in WASSIP commercial fishing areas are defined in statutes listed below under *Salmon administrative area*.

*Escapement.* The annual estimated size of the spawning salmon stock (5 AAC 39.222(f)).

*F-statistics.* Measures used to partition genetic diversity within and among populations in a hierarchical fashion.

*Genetic Marker.* A known DNA sequence that can be identified by a simple assay.

*Genotype.* The set of alleles for one or more loci for an individual.

*Harvest.* The number of salmon taken of a run from a specific stock.

*Harvest Rate.* The fractional harvest from a stock taken in a fishery.

*Lake Ecotype.* The typical anadromous form of sockeye salmon which spends about half its life in a nursery lake before migrating seaward (Burgner 1991).

*Locus (Loc, plural).* A fixed position or region on a chromosome that may contain more than one genetic marker.

*Mixed Stock Analysis (MSA).* Method using allele frequencies from populations and genotypes from mixture samples to estimate stock compositions of mixtures.

*Polymerase Chain Reaction (PCR).* Method which amplifies a single or few copies of a locus across several orders of magnitude, generating millions of copies of the DNA.

*Posterior Probability Distribution.* The distribution of an unknown quantity, treated as a random variable, conditional on the evidence obtained from an experiment or survey.

*Prior Probability Distribution.* The distribution that expresses uncertainty and information of an unknown quantity before taking into account data.

*Reporting Group.* A group of populations in a genetic baseline to which portions of a mixture are allocated during mixed stock analyses; constructed based on a combination of stakeholder needs and genetic distinction and approved by the WASSIP Technical Committee and Advisory Panel. For the purposes of WASSIP sockeye salmon analyses, reporting groups were defined into regional and subregional groups as follows:

- 1) Region: Norton Sound Subregions: None
- 2) Region: Kuskokwim Bay Subregions: Kuskokwim River, Kanektok, Goodnews
- 3) Region: Bristol Bay Subregions: Togiak, Igushik, Wood, Nushagak, Kvichak, Alagnak, Naknek, Egegik, Ugashik
- 4) Region: North Peninsula Subregions: Cinder, Meshik, Ilnik, Sandy, Bear, Nelson, Northwestern District-Black Hills
- 5) Region: South Peninsula Subregions: None
- 6) Region: Chignik Subregions: Black Lake, Chignik Lake
- 7) Region: East of WASSIP Subregions: None

*Run.* The total number of salmon in a stock surviving to adulthood and returning to the vicinity of the natal stream in any calendar year, composed of both the harvest of adult salmon plus the escapement; the annual run in any calendar year. The run is composed of several age classes of mature fish from the stock, derived from the spawning of a number of previous brood years (from 5 AAC 39.222(f)).

*Salmon Administrative Area (Area).* Geographic areas used to administer the registration of commercial salmon fishing permits (from 20 AAC 05.230). Commercial salmon fishing areas are designated by letter code and are defined by the following Alaska administrative code: Chignik (Area L; 5 AAC 15.100); Aleutian Islands and Alaska Peninsula (Area M; 5 AAC 12.100, 5 AAC 09.100, and 5 AAC 11.101); Bristol Bay (Area T; 5 AAC 06.100); and Kuskokwim (Area W; 5 AAC 07.100). Districts and subdistricts within areas are used to aid management are further defined by administrative code.

*Salmon Stock.* A locally interbreeding group of salmon that is distinguished by a distinct combination of genetic, phenotypic, life history, and habitat characteristics or an aggregation of 2 or more interbreeding groups, which occur in the same geographic area and is managed as a unit (from 5 AAC 39.222(f)). For purposes of this study, a sockeye stock is a composite of all

populations that spawn within the 15 major rivers and 9 adjacent geographic regions defined as *reporting groups* above.

*Sea/river Ecotype.* An anadromous form of sockeye salmon which does not spend any part of its life in a nursery lake before migrating seaward (Wood et al. 2008)

*Single nucleotide polymorphism (SNP).* DNA sequence variation occurring when a single nucleotide (A, T, C, or G) differs among individuals or within an individual between paired chromosomes.

## METHODS

### TISSUE SAMPLING

Axillary processes were collected from individual salmon sampled from commercial and subsistence harvests in nearshore marine fisheries along the coast of western Alaska. Sampling was conducted to be representative of the harvest in each fishery. Detailed methods for sampling tissue from the harvest and selecting samples for genetic analysis are reported in Eggers et al. (2011). For sockeye salmon, 307 fishery strata were sampled. These strata were distributed across time within fisheries from Chignik Area to Kuskokwim Area. A total of 182,523 samples were collected from 2006 to 2009. A total of 81,931 samples were selected for analysis from 2006 to 2008 collections.

### LABORATORY ANALYSIS

#### Assaying genotypes

DNA extraction and genotyping generally followed the methods in Seeb et al. (2009) and are described in detail in Dann et al. (2012a). Briefly, we extracted genomic DNA from tissue samples using a DNeasy<sup>®</sup> 96 Tissue Kit by QIAGEN<sup>®</sup> (Valencia, CA). We screened 96 SNP markers using Fluidigm<sup>®</sup> 96.96 Dynamic Arrays (<http://www.fluidigm.com>). The Dynamic Arrays were read on a Fluidigm<sup>®</sup> EP1<sup>™</sup> System or BioMark<sup>™</sup> System after amplification and scored using Fluidigm<sup>®</sup> SNP Genotyping Analysis software. Assays that failed to amplify on the Fluidigm system were reanalyzed on the Applied Biosystems platform. The plates were scanned on an Applied Biosystems Prism 7900HT Sequence Detection System after amplification and scored using Applied Biosystems' Sequence Detection Software version 2.2.

Genotypes produced on both platforms were imported and archived in the Gene Conservation Laboratory (GCL) Oracle database, LOKI.

#### Laboratory quality control

We conducted a quality control analysis (QC) to identify laboratory errors and to measure the background discrepancy rate of our genotyping process. The QC analyses were performed by staff not involved in the original genotyping. We applied 3 methods to the QC depending on the type of collection and when it was genotyped. We have termed these the *39*, *Assay*, and *New QC* methods; they are described in Dann et al. (2012a).

The *39 QC* method compared new and old genotypes for the 39 SNPs common to our current and previously analyzed catch samples (Dann et al. 2009). Since we assayed collections for all 96 SNPs at once, we were able to compare genotypes for 39 SNPs for 100% of individuals in a collection. Discrepancy rates were calculated as the number of conflicting genotypes, divided by

the total number of genotypes compared. These rates describe the difference between our old data for these 39 SNPs and new data for these same SNPs and are capable of identifying errors associated with these SNPs, but cannot detect DNA extraction errors since they are based upon the same extractions.

The *Assay* QC method compared all 96 SNPs for original project genotypes with QC genotypes based upon the same DNA extraction. We instituted this QC method as a complement to the *39* method since the *39* method is incapable of detecting errors associated with the 57 new SNPs on each assay plate. Errors associated with these new loci were detected by genotyping the 96 loci from previously-extracted DNA on one chip of 96 previously-genotyped and QC'ed individuals every time an assay tray was assembled. The new genotypes from these 96 fish were then compared with the genotypes in the database to ensure that the assay tray was assembled without error. Discrepancy rates were calculated as above; these rates describe the difference between original project data and QC data for all SNPs but are based on the same DNA plate and so are incapable of detecting DNA plate errors.

The *New* QC method is our current QC method and consists of re-extracting 8% of project fish and genotyping them for the same SNPs assayed in the original. Discrepancy rates were calculated as above; these rates describe the difference between original project data and QC data for all SNPs and are capable of identifying extraction, assay plate, and genotyping errors. This QC method is the best representation of the discrepancy rate of our current genotype production.

For all QC methods, assuming that the discrepancies among analyses were due equally to errors during the original genotyping and during quality control, error rates in the original genotyping can be estimated as half the rate of discrepancies.

## STATISTICAL ANALYSIS

### Data retrieval and genotype quality control

We retrieved genotypes from LOKI and imported them into *R* (R Development Core Team 2010). All subsequent analyses were performed in *R* unless otherwise noted. Prior to MSA, we conducted 3 statistical quality control analyses to ensure that only quality genotypic data was included in the estimation of stock compositions. First, we removed individuals that were missing substantial genotypic data from further analyses. We used what we refer to as the *80% rule* which excludes individuals missing genotypes for 20% or more of loci, because these individuals likely have poor-quality DNA. The inclusion of individuals with poor-quality DNA might introduce genotyping errors into the catch samples and reduce the accuracies and precision of MSA.

Secondly, we identified individuals that appeared to be the wrong species. Individuals that amplified well, but displayed signature patterns for other species in their scatter plot distributions across selected loci were identified as nonsockeye. We were able to determine that the sample represented a nonsockeye because we analyzed Atlantic and Pacific salmon (chum, Chinook, pink, and coho salmon) on the 96 markers to identify these species-specific signatures in scatter plot distributions. We only noted that the sample was nonsockeye and did not report the species.

Thirdly, we identified individuals with duplicate genotypes and removed them from further analyses. Duplicate genotypes can occur as a result of sampling or extracting the same individual twice, and were defined as pairs of individuals sharing the same genotype in 95% of markers

screened. The individual with the most missing data from each duplicate pair was removed from further analyses.

The number of sockeye salmon initially selected for analysis (Eggers et al. 2011), the number genotyped in the laboratory, the numbers excluded for the three statistical quality control analyses, and the final number included in MSA were tabulated for each catch sample.

### **Estimating stock compositions**

The stock compositions of WASSIP fishery harvests were estimated using a Bayesian approach to genetic MSA, the Pella-Masuda Model (*BAYES*; Pella and Masuda 2001). The Bayesian method of MSA estimates the proportion of stocks caught within each fishery using 4 pieces of information: 1) a baseline of allele frequencies for each population, 2) the grouping of populations into the reporting groups desired for MSA, 3) prior information about the stock proportions of the fishery, and 4) the genotypes of fish sampled from the fishery. The baseline of allele frequencies for sockeye salmon populations and the groups into which the populations were combined are described in Dann et al. (2012a).

#### ***Prior choice***

It was demonstrated during the WASSIP analysis that the choice of prior information about the stock proportions in a fishery, or the prior probability distribution (referred to hereafter as a *prior*) is important to the outcome of the MSA (Habicht et al. 2012b). There is not a universally standard method for the selection of a prior in these types of analyses. We predicted the prior effect to be greater with weakly structured baseline stocks, making prior selection especially important for these stocks. Based on WASSIP Technical Committee input, we developed a novel approach for defining priors based upon 4 steps: 1) within each fishery, determine whether variation is lower within years across time strata or across years within time strata using  $F_{ST}$  (Weir and Cockerham 1984); 2) estimate stock composition estimates for the combined strata groups with the lesser interstrata variability using the program *SPAM* (Debevec et al. 2000), excluding the first stratum for each set; 3) use these estimates for the priors in the first stratum for each set; and 4) use the posterior from the first stratum as the prior for the next most similar stratum (across time strata within years or across years within time strata based on  $F_{ST}$  results) and continue using the posterior of the previous stratum for prior of the following stratum until all strata are analyzed. We termed this the *sequential priors* method (Jasper et al. 2012).

This method for defining priors was applicable when more than one stratum from a fishery was available to develop a prior, but cannot be applied to unassociated strata. Unassociated strata are those with no adjacent sampled strata within a fishery, either across time strata within years or across years within time strata. As an example, a fishery that was sampled in only a single temporal stratum in only 1 of the 3 years would represent an unassociated stratum. Where these unassociated strata occurred, they were either excluded from further analyses or a prior was determined on a case-by-case basis using expert opinion.

The prior information about stock proportions was incorporated in the form of a Dirichlet probability distribution in which the sum of the prior Dirichlet parameters sum to  $K$  and can be interpreted as adding  $K$  individuals to the fishery sample known as the *prior count*. While  $K$  can be assigned any positive value, it is typically held at 1 (Pella and Masuda 2001), which is what we assigned it to.



### ***BAYES protocol***

We ran 5 independent Markov Chain Monte Carlo (MCMC) chains of 40,000 iterations with different starting values and discarded the first 20,000 iterations to remove the influences of the initial start values. We defined the starting values for the first chain such that the first 1/5 of the baseline populations summed to 0.9 and the remaining populations summed to 0.1. Each chain had a different combination of 1/5 of baseline populations summing to 0.9. We combined the second halves of these chains to form the posterior distribution and tabulated mean estimates, 90% credibility intervals, the probability of an estimate being equal to zero, and standard deviations from a total of 100,000 iterations. For each tabulated measure, summary statistics were based upon the raw posterior, which was calculated out to 6 significant digits.

We also assessed the within- and among-chain convergence of these estimates using the Raftery-Lewis (within-chain) and Gelman-Rubin (among-chain) diagnostics. These values measure the convergence of each chain to stable estimates (Raftery and Lewis 1996), as well as measure the variation of estimates within a chain to the total variation among chains (Gelman and Rubin 1992), respectively. If the Gelman-Rubin diagnostic for any stock group estimate was greater than 1.2 we reanalyzed the mixture with 80,000-iteration chains following the same protocol. If the Gelman-Rubin diagnostic for any stock group estimate was greater than 1.2 after this reanalysis, we analyzed the mixture with the program *HWLER* (Pella and Masuda 2006). *HWLER* is similar to *BAYES* in that it estimates stock compositions based upon a Bayesian model, but differs in that it incorporates information about the effect of assigning mixture individuals to baseline populations with respect to the Hardy-Weinberg and linkage equilibria conditions observed in the baseline populations. In doing so it allows for the identification of extra-baseline individuals that contravene these equilibria conditions, but contribute to the mixture in question. We incorporated this information into the definition of the posterior for those mixtures that failed to converge after reanalysis with 80,000-iteration chains in *BAYES*.

### ***Reporting quality control***

As a final quality control measure, draft stock composition estimates for sockeye salmon captured in WASSIP fishery strata were distributed to regional research biologists for review on May 29, 2012. This review was designed to serve as part of the quality control process before distribution of estimates to the Advisory Panel (AP), Technical Committee (TC), and regional management biologists. Regional research biologists were asked to provide feedback to the GCL identifying estimates that appeared unexpected. The GCL committed to statistically re-analyzing a set of these fishery strata to look for analysis errors. This re-analysis involved rewriting *R* scripts as if the strata had never been analyzed before, retrieving genotypes from the database, compiling new input files for *BAYES* (using original priors and starting values), estimating stock compositions with *BAYES* following the protocol described above, and comparing estimates to the released estimates.

The regional research biologists provided a list of area strata with unexpected stock composition estimates. The GCL selected 10 of these area strata (5% of the total) that were unexpected for a variety reasons (Table 1) and were distributed throughout WASSIP sampled fisheries.

On July 6, 2012, draft stock composition estimates for sockeye salmon captured in fishery strata for WASSIP were distributed to the AP, TC, and regional management biologists for review. This review was a continuation of the quality control process before distribution of final

estimates. Again, recipients were asked to provide feedback to the GCL identifying estimates that appeared unexpected for reanalysis.

## **RESULTS**

### **TISSUE SAMPLING**

Deviations in analyses from the sampling plan (Eggers et al. 2011) occurred and were due to three reasons: 1) increases in the number of tissue samples selected for analysis for some strata, 2) exclusion from analysis of some strata that were in the original plan, and 3) inclusion of analysis of some strata that were not scheduled for analysis in the original plan.

During the selection of tissue samples for analysis, some adjustments were made to correct minor errors reported in the sampling report and errors made when selecting fish for analysis. Sampling report errors in the number of samples collected were corrected after counting the number of tissues received. This number often reduced the number of samples available for analysis. Errors made when selecting fish initially resulted in selection of samples that were not in proportion to the catch that the samples represented. Additional fish were analyzed to correct these proportions. To provide estimates based on the largest number of samples, we included all fish analyzed within each stratum, which resulted in more fish analyzed than originally proposed in the sampling plan. Deviations between the number of samples selected in the sampling report and the final number analyzed, and reasons for excluding some samples, are provided in Appendix A1.

Some strata originally slated for analysis were excluded by the AP for two reasons: 1) insufficient number of samples available, and 2) unassociated strata (see above). A minimum number of 100 samples was selected to provide reliable estimates. We therefore excluded from analysis post-June Ikatan area for 2006 (n=50). Post-June Ikatan 2007 and 2008 were included (n>300). For sockeye salmon, only 1 unassociated stratum was found (Eastern District, Chignik Area, 2007) and the sample was excluded from analysis because the AP decided not to define a prior for this catch sample.

Three strata originally not scheduled for analysis in the sampling plan were included after consultation with the AP. These 3 strata were all collected in 2006 and represented spatially restricted fishing areas within Bristol Bay districts. They included one sample from the Alagnak River Special Harvest Area (SHA), one sample from the Kvichak Section (both within the Naknek-Kvichak District), and one sample from the Igushik Section (within the Nushagak District).

### **LABORATORY ANALYSIS**

#### **Assaying Genotypes**

A total of 84,625 fish were genotyped from 217 strata (Appendix A1). This represents 1,462 more fish and 1 more strata than were originally selected for analysis as reported in Eggers et al. (2011).

#### **Laboratory Quality Control**

Laboratory quality control identified errors in tissue and DNA handling in the laboratory. After these errors were corrected, we measured similar low levels of nonsystematic discrepancies between the original analysis and the QC analyses for the three QC methods (Table 2). Over a

million genotypes were compared during all the QC methods and discrepancy rates involving alternate homozygotes was 0.02% (2 in every 10,000 genotypes) and involving homozygotes and heterozygotes was 0.42% (4 in every 1,000 genotypes). Assuming the errors are equally likely to have occurred in the production and QC genotyping process, error rates for both error types across all methods was 0.21% (2 in every 1,000 genotypes). This level of error was well below the standard set by the laboratory as acceptable (1%).

## **STATISTICAL ANALYSIS**

### **Data Retrieval and Genotype Quality Control**

Of the 84,625 fish genotyped, 1,039 were excluded from analysis because they were missing genotypes for more than 20% of the loci, 41 were excluded because they were identified as the wrong species, and 152 were excluded because they appeared to represent duplicate individuals (Appendix A1). In the end, a total of 83,393 fish were used to produce stock composition estimates for 217 area-temporal strata. Average sample size of time-area strata was 384 fish with a minimum of 95 fish and a maximum of 690 fish.

### **Stock compositions**

#### *Prior Choice*

All priors used to estimate the stock compositions of sockeye salmon catches were defined following the  $F_{ST}$  approach.

#### *BAYES protocol*

Three of the 217 catch samples analyzed had chains that failed to converge after 40,000-iteration analysis and were analyzed with 80,000 iterations. One mixture (Kuskokwim Area, District 5 commercial stratum 1 in 2007) still failed to converge after 80,000 iterations due to different modes of estimates for the Goodnews and Togiak reporting groups among chains (Gelman-Rubin estimates 5.58 for Goodnews and 5.77 for Togiak). All chains were dominated by Goodnews and Togiak estimates. Three of the 5 chains converged upon stock composition estimates with higher Goodnews estimates (85.9% Goodnews vs. 10.7% Togiak), while the other two converged upon estimates indicating a greater Togiak contribution to the catch (48.6% Goodnews vs. 47.9% Togiak).

We analyzed this catch sample with *HWLER*, which identified 31 extra-baseline individuals from 1 missing population in the baseline. We also used *HWLER* to analyze a Goodnews River escapement sample that was used as a baseline evaluation test and also failed to convergence (Middle Fork Goodnews River weir, 2007; described in Dann et al. 2012b). Those results identified 42 extra-baseline individuals from 1 missing population in the baseline. These 74 extra-baseline individuals, when combined, satisfied Hardy-Weinberg expectations, suggesting they are from the same population. We also reanalyzed the catch sample with the 31 extra-baseline individuals removed (n=137) and the results supported the hypothesis that the 31 individuals from the catch sample were Goodnews fish.

Based upon these results, which suggest the missing baseline population is within the Goodnews River drainage, we summarized the 3 chains that indicated a greater Goodnews contribution as the posterior. These results and conversations with area staff suggest the baseline is missing a population or populations of sockeye salmon from Kukaktlim Lake in the Middle Fork of the

Goodnews River drainage. We collected baseline samples from this lake in August of 2012, but were unable to incorporate them into the baseline for WASSIP purposes.

### ***Reporting QC***

Reanalysis of all 10 catch samples yielded almost identical results as those released. Small deviations were observed (<0.1% deviations in stock-specific estimates) for 1 catch sample and were attributed to using different versions of *BAYES*. Most estimates were analyzed using *BAYES* version 1, but some were analyzed on version 2, which uses an informative prior based on allele frequency variation within reporting groups rather than using allele frequency variation across the entire baseline, ignoring information among reporting groups. All estimates analyzed with version 2 were identified and re-analyzed with version 1. Only version 1 estimates were released in final reports.

We received feedback from various AP members about unexpected proportions, but no responding AP members felt a statistical re-analysis was needed, given the results from the previous efforts.

## **STOCK COMPOSITION ESTIMATES BY FISHERY**

### **Westward Region**

#### ***Chignik Area***

The Chignik Area fishery was sampled in 4 area strata: Eastern District, Central District, Chignik Bay District, and Western and Perryville districts combined as described in Eggers et al. (2011). The number of temporal strata varied by sampling area and most temporal and geographic strata sampling goals were met. Sampling efforts extended from mid-June when the fishery began through the end of July. Commercial fishing continued through most of August; however, those harvests were not sampled.

#### **Eastern District**

Low fishing effort and few fishery openings in the Eastern District limited sampling opportunities, resulting in achievement of a single temporal sampling stratum goal in 2007. As a result, the AP excluded the Eastern District from genetic analysis.

#### **Central District**

There were 4 temporal sampling strata in the Central District from 2006 through 2008 beginning with the first commercial fishery opening and ending in late July (Tables 3–8; Figure 2; Appendices B1–B6). Only 1 stratum fell short of sampling goals during the 3 years of sampling. The Black Lake and Chignik Lake reporting groups represented the overwhelming majority of stocks present throughout all strata in the Central District. During all years sampled, the Black Lake reporting group was by far the dominant stock early in the season, transitioning to the Chignik Lake reporting group during early to mid-July. Some variation was observed in the stock composition estimates of non-Chignik fish among and within years. During 2006, the Bristol Bay and East of WASSIP reporting groups were the largest non-Chignik contributors, but represented only 1–3% of the harvest (Tables 3–4; Appendices B1–B2). During 2007, the first stratum had a higher percentage from Bristol Bay, with approximately 19% of the harvest distributed across most Bristol Bay reporting groups (Table 5; Appendix B3). By late June the Bristol Bay contribution to the harvest dropped below 3% for the remainder of the season.

During 2008, the within-year trend of a higher Bristol Bay contribution continued with 14.3% of the harvest during the first stratum and diminished late in June (Table 7; Appendix B5).

### **Chignik Bay District**

There were 6 sampling strata in the Chignik Bay District from 2006 through 2008. Strata represented time periods of approximately 10 days at the beginning of June and end of July and represented time periods of approximately 3–5 days during late June and early July to better characterize the transition between the early and late Chignik runs. One stratum was not sampled during mid-July in 2008 due to a fishery closure. As in the Central District, the Black Lake and Chignik Lake reporting groups were dominant in Chignik Bay District harvests (Tables 9–14; Figure 3; Appendices B7–B12). No other stock composition estimate exceeded 2% in any stratum. In all years, Black Lake was the dominant reporting group early in the season with a transition to the Chignik Lake reporting group during early- to-mid July.

### **Western and Perryville districts**

During 2006 and 2007 there were 2 sampling strata in the Western and Perryville districts during July. In 2008 a third stratum was added during June. Stock compositions in the Western and Perryville districts varied across the 3 sampling seasons (Tables 15–17; Figure 4; Appendices B13–B15). During 2006, stock compositions were dominated by the Chignik reporting group, composing 65.6% to 68.6% of the harvest during both strata (Table 15; Appendix B13). The only other reporting group that made a significant contribution to the harvest was the East of WASSIP group (30.8% to 33.3%). During 2007, the Chignik reporting group included 50.8% to 66.1% of the harvest, with the East of WASSIP reporting group contributing 18.5% to 38.8% of the harvest (Table 16; Appendix B14). The Bristol Bay reporting group also contributed from 5.1% to 12.1% to the harvest. During 2008, the early portion of the season was sampled during late June (Table 17; Appendix B15). Bristol Bay composed a much larger percentage of the total harvest (35.9%) during the first stratum; however, Chignik was still the largest reporting group with 49% of the harvest. The contribution from Bristol Bay dropped during early July to 6.6%, but increased during late July to 35.0%. The East of WASSIP reporting group also contributed substantially with 9.5% to 14.9% of the harvest, while the North Peninsula reporting group contributed 11.5% during the last stratum.

### ***Southeastern District Mainland Fishery***

The Southeastern District Mainland fishery was divided into 3 area sampling strata: East Stepovak and Stepovak Flats sections combined, Northwest Stepovak Section, and the Southwest Stepovak, Balboa Bay, and Beaver Bay sections combined as described in Eggers et al. (2011). Initially 2 temporal strata were planned, one during June and one during July. Due to the lack of early fishery openings, the July 1–25 stratum was divided into 2 strata. A third stratum was added in 2007 to represent harvests after July 25 through mid-August. Opportunistic late sampling during 2006 (July 26) allowed the third temporal stratum to be analyzed in 2006 as well.

### **East Stepovak and Stepovak Flats sections**

There were no fishery openings in the East Stepovak and Stepovak Flats sections during June in any of the 3 sampling years and one 2-day opening during the second stratum in 2006 only (July 20–21). Only 3 reporting groups represented contributions above 1% in the harvest (Tables 18–20; Figure 5; Appendices C1–C3) during the second stratum in 2006: 1) East of WASSIP

(39.1%), 2) Black Lake (20.7%), and 3) Chignik Lake (40.1%). Samples from the last strata were obtained in all 3 sampling years. Stock compositions during the last stratum were similar across sampling years with East of WASSIP reporting group varying between 44.8% and 62.6% and the Chignik reporting group varying between 37.0% and 54.3% (Tables 18–20; Appendices C1–C3). No other reporting groups had large contributions to the harvest.

### **Northwest Stepovak Section**

Similar to the East Stepovak and Stepovak Flats sections, there were no openings during June for the Northwest Stepovak Flats Section. Samples were collected during the early- and mid-July strata in 2008, but there were no openings during 2006 and 2007. Late strata samples were collected in 2008 only. During the first 2 strata in 2008, the Chignik reporting group represented 43.5% to 59.5% of the harvest while the South Peninsula reporting group contribution was 26.9% to 38.7%, and the East of WASSIP reporting group contribution was 10.2% to 14.6% (Table 21; Figure 6; Appendix C4). The late stratum during 2008 showed a decrease in South Peninsula (6.8%) with an increase in Chignik (67.7%) and East of WASSIP (24.3%; Table 21; Appendix C4).

### **Southwest Stepovak, Balboa Bay, and Beaver Bay sections**

Similar to the East Stepovak and Stepovak Flats sections, the Southwest Stepovak, Balboa Bay, and Beaver Bay sections were not sampled in the first stratum for 2006 through 2008, only in 2006 for the second stratum, and in 2006 through 2008 for the third stratum. In 2006, the Chignik reporting group was the largest contributor with 52.5% in the second stratum and 50.0% in the third stratum (Table 22; Figure 7; Appendix C5). The East of WASSIP reporting group was also a large contributor with 46.4% in the second stratum and 49.6% in the third stratum during 2006 (Table 22). No other reporting groups contributed more than 1% in 2006. In the third stratum in 2007 and 2008, the East of WASSIP and Chignik reporting groups were again the dominant stocks (Tables 23–24; Appendices C6–C7).

### ***South Alaska Peninsula June Fishery***

The June fishery was sampled in 4 area strata during 2006 through 2008 including Shumagin Islands Section, Dolgoi Islands area, Ikatan area, and Unimak District. Each area was composed of 3 temporal strata evenly divided across the June fishery openings. Most strata sampling goals were achieved. Low fishing effort was usually the cause of failing to meet sampling goals.

### **Shumagin Islands Section**

Only 1 of the 9 Shumagin Islands Section strata fell short of meeting its sampling goal. Sampling was precluded during the first stratum in 2008 due to no fishing effort. The Bristol Bay reporting group was the largest contributor across all strata in all years (Tables 25–27; Figure 8; Appendices D1–D3). The Bristol Bay estimate increased through time during the June fishery for 2 years, from 46.0% to 61.4% in 2006 and from 80.1% to 89.4% in 2007, but decreased slightly over time in 2008 from 85.5% to 73.9%. During 2006, the East of WASSIP reporting group contribution fluctuated between 18.6% and 43.6% of the harvest. During 2007 and 2008, the East of WASSIP group contributed less to the harvest (4.9% to 16.5%). The Chignik reporting group was widely variable across years. During 2006, there was a substantial percentage of Chignik fish in the harvests (between 7.1% and 28.9%), but during 2007 and 2008, there was less of a contribution, ranging from 1.1% to 3.4% during 2007 and 3.5% to 5.0% during 2008.

### **Dolgoi Island area**

Sampling goals in the Dolgoi Island area were achieved in 7 of the 9 strata and the goals were nearly reached in the 2 sampling strata that fell short of goals. MSA was possible for all strata. Contributing stocks in the Dolgoi Island area varied widely within and between years (Tables 28–30; Figure 9; Appendices D4–D6). In 2006, the dominant reporting group estimate was Chignik (55.1% to 74.6%). The East of WASSIP reporting group had contributions ranging from 17.1% to 39.5%. The Bristol Bay reporting group was a smaller, but notable, component with 5.2% to 9.9% of the harvest. During 2007, the Bristol Bay reporting group estimates were greater and increased during the season from 15.1% to 43.5%, while the East of WASSIP reporting group decreased from 56.2% to 35.8%. The Chignik reporting group remained relatively stable, varying between 18.4% and 29.3%. In 2008, the Chignik reporting group varied between 30.5% and 43.0%, Bristol Bay between 24.4% and 50.8%, and East of WASSIP between 7.4% and 27.4%.

### **Ikatan area**

Sampling goals in the Ikatan area were met in only 4 of the 9 sampling strata; however, samples were of sufficient size to estimate stock compositions in all but 1 of the 9 strata. While the major contributing reporting groups harvested in the Ikatan area were similar throughout all strata in all years, the contribution varied widely among and within years (Tables 31–33; Figure 10; Appendices D7–D9). During 2006, the Bristol Bay reporting group varied between 52.7% and 70.7% of the harvest. The Chignik reporting group increased throughout June, beginning the season at 10.6% and increasing to 30.2%. The East of WASSIP reporting group decreased throughout June from 24.0% to 10.1%. During 2007 and 2008, the Bristol Bay reporting group composed a larger percentage of the harvest varying between 82.0% and 92.6%. The East of WASSIP reporting group varied between 1.4% and 11.6% during 2007 and 2008 with no discernible pattern between or within years, while the Chignik reporting group contributed less than 4% in any strata during 2007 and 2008. The North Peninsula reporting group estimate varied between 1.2% and 5.8% during all strata in all years.

### **Unimak District**

Sampling goals in the Unimak District were met in 6 of the 9 strata and 8 strata were of sufficient size to estimate stock compositions. Contributing stocks in the Unimak District showed similar trends to that of the Ikatan area, with similar major stocks for each year, but wider variation of contributions across years (Tables 34–36; Figure 11; Appendices D10–D12). During 2006, the Bristol Bay reporting group increased as the season progressed from 30.9% to 69.5% as other groups decreased (East of WASSIP, 16.4% to 10.4%; Chignik, 51.3% to 15.0%). No other reporting group exceeded 5% during 2006. During 2007, the Bristol Bay reporting group composed a larger percentage of the overall June harvest, varying between 82.3% and 86.7%. The East of WASSIP reporting group estimate increased as the season progressed from 5.1% to 10.8% and the Chignik reporting group was less prevalent. The 3 sampling strata in 2008 also had a larger Bristol Bay component with 84.0% to 94.3% of the harvest while all other stocks composed less than 5% of the harvest except for the North Peninsula reporting group during the first (11.5%) and third (5.3%) strata.

### ***South Alaska Peninsula Post-June Fishery***

The post-June fishery was initially sampled with 3 temporal strata in the Shumagin Islands and 1 stratum each in the Dolgoi Island area and the Ikatan area. An additional late stratum during August was added to all 3 areas beginning in 2007. The majority of sampling strata were met during all 3 seasons.

#### **Shumagin Islands Section**

Sampling goals were met in 8 of the 11 strata; however, sufficient samples were collected to perform estimate stock compositions in all 11 strata. During 2006, the East of WASSIP reporting group was a strong component contributing 44.4% to 65.6% of the harvest (Table 37; Figure 12; Appendix E1). The Chignik reporting group appeared to increase throughout the season (14.9% to 38.4%). The Bristol Bay reporting group began at 34.5% and dropped to 1.0% by the end of July. The North Peninsula reporting group contributed 5.9% of the harvest in the first stratum, but composed less than 1% for the rest of the season. During 2007, all of the major contributing stocks varied widely throughout the fishery (Tables 38–39; Figure 12; Appendices E2–E3). The Bristol Bay reporting group varied but was above 45% in all but the last stratum (13.2%). The North Peninsula group varied between 3.6% and 6.8%, the Chignik group between 2.3% and 17.3%, and the East of WASSIP group between 17.0% and 62.2%. The Kuskokwim Bay reporting group contributed 7.0% in the first stratum and 6.3% in the third stratum but was below 2% in the other two strata. The major contributing stocks in 2008 were variable but stock compositions were similar to those in 2007 (Tables 40–41; Figure 12; Appendices E4–E5). The North Peninsula reporting group had an increased percentage of the harvest in 2008, which varied between 4.4% and 19.3%, as did the Chignik reporting group, which varied between 9.2% and 32.1%.

#### **Dolgoi Island area**

All targeted sampling goals were met in the Dolgoi Island area during the post-June fishery. The Chignik and East of WASSIP reporting groups were clearly the dominant contributing stocks to the Dolgoi Island area during the post-June fishery (Tables 42–44; Figure 13; Appendices E6–E8). Both the Chignik reporting group and the East of WASSIP group varied on the order of 32% to 67% across the 3 years. The only other reporting group that exceeded 5% at any time was the Bristol Bay reporting group, which composed 12.1% of the harvest in the first stratum of 2008, and the North Peninsula reporting group, which contributed 5.4% of the harvest in the second stratum of 2008.

#### **Ikatan area**

Sampling goals were met in only 1 of the 3 strata. However, 2 strata had sufficient samples to perform MSA. Only 50 samples were collected in 2006 due to low fishing effort, precluding a stock composition estimate for 2006. Stock compositions were similar for 2007 and 2008 and had a wide diversity of stocks (Tables 45–46; Figure 14; Appendices E9–E10). In 2007, the East of WASSIP reporting group contributed 43.9%, Bristol Bay contributed 24.5%, Chignik contributed 14.1%, North Peninsula contributed 9.2%, and South Peninsula contributed 6.6%. In 2008, the Bristol Bay reporting group contributed 35.6% of the harvest while North Peninsula contributed 6.9%, South Peninsula contributed 18.8%, Chignik contributed 15.7%, and East of WASSIP group contributed 22.8%.



## *North Alaska Peninsula*

The North Alaska Peninsula fishery was initially divided into 4 spatial strata, each with 3 temporal strata. The areas were Bear River Section, Three Hills Section, southern portion of the Ilnik Section, and northern portion of the Ilnik Section. The Outer Port Heiden Section was added in 2007. Due primarily to limited fishery openings, a total of 22 out of 42 strata sampling goals were met from 2006 through 2008, but 29 strata had sufficient sample sizes to estimate stock compositions.

### **Bear River Section**

Sampling goals were met in all 3 strata in 2006, but none of the overall sampling goals were met in 2007 and 2008. Sufficient samples were collected to estimate stock compositions in the second and third strata during 2007, but not enough samples were available for MSA in the first stratum. The fishery was closed for the entirety of the study in 2008, so no MSA was performed for any strata in that year. The North Peninsula reporting group was the dominant contributor to Bear River Section harvests in analyzed strata, with the Bear River component being the largest contributor (Tables 47–48; Figure 15; Appendices F1–F2). In 2006, the North Peninsula reporting group component of the harvest decreased slightly as the season progressed, starting at 88.3% and decreasing to 72.1%. The Bristol Bay reporting group increased from 9.7% to 17.4% throughout the season. East of WASSIP group was the only other stock grouping that composed more than 5% of a harvest with a 10.4% contribution during the third stratum. Similar stock compositions were present during 2007 with North Peninsula reporting group contributing approximately 79% during both strata, the East of WASSIP group contributing between 13.1% and 16.6%, and Bristol Bay contributing between 2.2% and 6.2%.

### **Three Hills Section**

None of the overall sampling strata goals were achieved in the Three Hills Section due to limited fishing in 2006-2008; however, sufficient samples were collected to estimate stock compositions for the second and third strata in 2006. For analyzed strata, the largest contributor to the Three Hills Section harvests during 2006 was the North Peninsula reporting group (49.2% to 51.9%) followed by the Bristol Bay reporting group (40.8% to 44.8%; Table 49; Figure 16; Appendix F3). Specifically, Bear River within the North Peninsula reporting group was the strongest contributor within the North Peninsula reporting group, ranging from 25.9% to 30.7%, while Ugashik was the greatest contributor within the Bristol Bay reporting group, ranging from 32.7% to 39.6%. The East of WASSIP reporting group contributed below 3% during the second stratum but increased to 10% during the third stratum.

### **Ilnik Section southern statistical area**

The majority of sampling goals were met in the Ilnik Section southern statistical area with 7 of the 9 goals achieved and 8 of the 9 with sufficient sample size to perform MSA. A fishery closure precluded any sampling in the third stratum of 2008. The largest contributors to the harvests in the southern portion of the Ilnik Section were the Bristol Bay and North Peninsula reporting groups (Tables 50–52; Figure 17; Appendices F4–F6). During 2006, Bristol Bay composed between 52.4% and 53.1% of the harvest consistently throughout the season while the North Peninsula reporting group exhibited a slightly decreasing trend from 43.1% to 34.6%. The East of WASSIP reporting group increased throughout the sampling period from 1.7% to 12.6%. No other reporting groups exceeded 5%. In 2007 the Bristol Bay reporting group varied between

30.2% and 72.9% and the North Peninsula between 26.3% and 69.5%. The only other reporting group exceeding a 5% contribution to the harvest was the East of WASSIP group with 9.6% in the third stratum. In 2008, the Bristol Bay (58.2% to 69.1%) and the North Peninsula (25.2% to 38.3%) reporting groups were the only groups present in contributions exceeding 5.5%.

### **Ilnik Section northern statistical area**

All sampling strata goals were met in the Ilnik Section northern statistical area during 2006 and 2007. While no goals were met in 2008, sufficient samples were collected in 2 of the 3 strata to perform MSA. Stock composition estimates in the northern portion of the Ilnik Section were similar to those of the southern portion of the Ilnik Section. The two dominant contributors to the harvest were the Bristol Bay and North Peninsula reporting groups (Tables 53–55; Figure 18; Appendices F7–F9), but contributions were variable. The East of WASSIP group was more prevalent in the third stratum in all years. During 2006, the Bristol Bay reporting group increased during the season from 48.1% to 81.4% while the North Peninsula reporting group decreased from 47.8% to 10.9%. The East of WASSIP group was only present in percentages above 5% during the third stratum with 7.6% of the harvest. In 2007, both the Bristol Bay (35.5% to 65.3%) and North Peninsula (29.1% to 53.9%) reporting groups varied during the season. The East of WASSIP group contributed 19.6% to the harvest in the third stratum, but was a small contributor in the first two strata. In the two strata collected in 2008, only the Bristol Bay (75.5% to 85.7%) and North Peninsula (12.9% to 22.9%) reporting groups occurred in percentages above 5%.

### **Outer Port Heiden Section**

All targeted sampling stratum goals were met in the Outer Port Heiden Section; however, with no fishery during 2006, stock compositions are available only from 2007 and 2008. The Bristol Bay reporting group was the dominant contributor to the harvests in the Outer Port Heiden Section in all strata, followed by the North Peninsula reporting group (Tables 56–57; Figure 19; Appendices F10–F11). In all years the Meshik subregional reporting group contributed the majority of the North Peninsula fish during the first 2 strata and the Bear River was the largest contributor from the North Peninsula in the third stratum. In 2007, Bristol Bay estimates varied between 65.2% and 76.1%, with the Ugashik subregional reporting group consistently comprising the largest portion of that group. The North Peninsula reporting group varied between 22.6% and 26.8%. In the last stratum in 2007, East of WASSIP contributed 9.9%, but was approximately 1% for the first two strata. In 2008, the Bristol Bay reporting group ranged from 76.1% to 89.8%, with Ugashik again the consistent dominant stock within that group. The North Peninsula reporting group ranged from 9.2% to 23.0%.

### **Bristol Bay**

#### ***Ugashik District***

There were 5 temporal strata for each year in the Ugashik District from 2006 to 2008, beginning with the first commercial fishery opening in June and ending in August (Tables 58–63; Figure 20; Appendices G1–G6). Sampling goals were met for all but 3 strata, but adequate numbers of samples were taken for all strata to produce stock composition estimates. During all temporal strata within each sampling year, the Bristol Bay regional reporting group estimate exceeded 98%, with the exception of Stratum 1 in 2006 (93.0% ) and Stratum 1 in 2007 (83.5%). In both these instances, North Peninsula was the next largest contributor. Within the Bristol Bay

reporting group, the Ugashik subregional group was by far the dominant stock. In 2006, Ugashik estimates ranged from 64.8% in the first stratum to 93.9% in the last stratum, while Egegik was the next largest contributor. In 2007 and 2008, there was also a general increase in the proportion of Ugashik, accompanied by a decrease in Egegik.

#### ***Egegik District***

There were 5 temporal strata for each year in the Egegik District from 2006 to 2008, beginning with the first commercial fishery opening in June and ending in August (Tables 64–69; Figure 21; Appendices G7–G12). Sampling goals were met for all but 2 strata, but adequate numbers of samples were taken for all strata to produce stock composition estimates. Five strata represented harvests from the Egegik River SHA: 2006 strata 1–3 and 2007 strata 2–3. During all temporal strata in all sampling years, the Bristol Bay reporting group estimates exceeded 99%. The Egegik subregional reporting group was by far the dominant contributor for the Bristol Bay reporting group. In 2006, estimates for Egegik ranged from 66.6% to 97.9%; estimates from Ugashik, Naknek, and Kvichak exceeded 5% in at least one temporal stratum. In 2007, estimates for Egegik ranged from 59.3% to 89.2%, with estimates for Wood, Naknek, Kvichak, Ugashik, and Alagnak exceeding 5% for at least one temporal stratum. In 2008, Egegik estimates ranged from 59.1% to 85.7%, with estimates for Kvichak, Naknek, and Ugashik exceeding 5% in at least one temporal stratum.

#### ***Naknek-Kvichak District***

There were 7 temporal/area strata in the Naknek-Kvichak District during 2006, 5 temporal strata in 2007, and 6 temporal/area strata in 2008, beginning with the first commercial fishery opening and ending in August (Tables 70–76; Figure 22; Appendices G13–G19). Sampling goals were met for all but 5 strata, but adequate numbers of samples were taken for all strata to produce stock composition estimates. Three strata represented harvests from specific fishery sections or SHAs: 2006 stratum 6 (Alagnak SHA); 2006 stratum 7 (Kvichak section); and 2008 stratum 6 (Kvichak section). Estimates for Bristol Bay reporting group were greater than 99% for all strata in all years. During all years sampled, the Naknek, Kvichak, and Alagnak subregional reporting groups were by far the dominant stocks. Within all 3 years, there was a general increase in the contribution of the Alagnak reporting group through the temporal strata, and a general decrease in the contribution of Naknek. Two strata showed aberrant Wood subregional reporting group contributions: The Alagnak SHA (stratum 6) in 2006 (14.9%) and the first temporal stratum in 2007 (7.8%).

#### ***Nushagak District***

There were 5 temporal strata in the Nushagak District during 2006 to 2008 and 1 additional spatial stratum in 2006. Temporal strata began with the first commercial fishery opening in June and ended in August (Tables 77–82; Figure 23; Appendices G20–G25). The 6th stratum of 2006 represented harvest only from the Igushik Section, which was open for commercial fishing from late June to late July. Sampling goals were met for all but 3 strata, but adequate numbers of samples were taken for all strata to produce stock composition estimates. Estimates were greater than 92% for the Bristol Bay reporting region for all strata in all sampling years; contribution estimates greater than 5% were made for Kuskokwim Bay in stratum 3 of 2006 and stratum 5 of 2007. During all years sampled, the Wood, Nushagak and Igushik reporting groups were by far the dominant stocks. In 2006, the Wood reporting group was the largest contributor, with estimates greater than 70.5% for all temporal strata. Estimates for Nushagak ranged from 15.0%

to 23.3% among temporal strata. In stratum 6 (Igushik Section), Igushik contributed 97.4% to the harvest. In 2007, estimates for Wood ranged from 52.8% to 77.9%, estimates for Nushagak ranged from 17.8% to 25.4%, while estimates for Igushik were less than 10%. Similar estimates were observed in 2008, with Igushik estimates the highest in the last stratum (21.6%).

### ***Togiak District***

There were 5 temporal strata in the Togiak District from 2006 through 2008, beginning with the first commercial fishery opening in June and ending in August (Tables 83–87; Figure 24; Appendices G26–G30). Sampling goals were met for 3 strata during 2006 and for all strata in 2007 and 2008. The Kuskokwim Bay regional reporting group was generally the dominant group early in the season, transitioning to the Bristol Bay group in early July. Kuskokwim Bay estimates were composed almost entirely of the Goodnews subregional reporting group, while Bristol Bay reporting group estimates were composed almost entirely of the Togiak subregional reporting group.

## **Arctic-Yukon-Kuskokwim Region**

### ***Kuskokwim Area***

#### **District 5 Commercial**

Four temporal strata were targeted for sampling in District 5 during 2006 through 2008, with commercial harvests occurring mid-June through the end of August each year (Tables 88–89; Figure 25; Appendices H1–H2). Only one stratum was sampled in 2006, 3 in 2007, and 0 in 2008. Sampling goals were met for 1 stratum, but adequate numbers of samples were taken for all 4 sampled strata to produce stock composition estimates. The Goodnews reporting group represented the majority of sampled strata for stocks present in both sampled years, with 33.5% to 91.5% of the harvest. Smaller proportions (<5%) of other stocks were present in the first strata each year, including the Togiak and Kuskokwim River groups. The Togiak reporting group was minimally present in 2006 (2.9%) but contributed 10.7% of the harvest in the first strata of 2007. The Goodnews reporting group decreased in subsequent strata in 2007 (55% in strata 2 and 33.5% in strata 3) while the Bristol Bay reporting group increased in these subsequent strata. The Togiak reporting group, in particular, was a major contributor (28% in stratum 2 and 51.4% in stratum 3). Other Bristol Bay reporting groups and the Kanektok reporting group were present in these later strata at levels of approximately 5% or less of the harvest.

#### **District 4 Commercial**

Three temporal strata were sampled in 2006 through 2008, with commercial harvests occurring mid-June through the end of August each year (Tables 90–92; Figure 26; Appendices H3–H5). Sampling goals were met for all but 1 stratum, but adequate numbers of samples were taken for all strata to produce stock composition estimates. Stock compositions across years and across strata within years were dominated by the Kanektok reporting group, often representing over 90% of the harvest. The Nushagak and Wood River reporting groups composed minor elements of the harvest; these stock groups consistently occurred at rates below 2% in early strata and climbed as high as 8.1% in the third stratum each year. Other Kuskokwim Bay area reporting groups were largely absent from stock compositions, with the exception of the Kuskokwim River during one stratum (mid-June through early July) in 2007, where this reporting group contributed 20.1%.

## DISCUSSION

Previous work documented the unprecedented sampling effort that took place across Western Alaska fisheries from 2006 to 2009 (Eggers et al. 2011). Of the 182,523 sockeye salmon tissue samples collected in 307 strata, 81,931 were selected for analysis from 216 area-temporal strata and 84,625 samples from 217 strata were ultimately genotyped. These samples were genotyped for 96 SNPs chosen specifically for WASSIP MSA (Dann et al. 2012c). A baseline composed of 39,205 individuals from 450 collections representing 294 populations, genotyped for the same SNPs, was built to make this MSA effort possible. We compared genotypes of catch samples to allele frequencies of baseline populations to estimate the contribution of each reporting group to the catch that each sample represents. Finally, the application of harvest estimates to the stock composition estimates reported here allows for the calculation of stock-specific harvests and harvest rates. In doing so, this work provides a crucial link between the catch samples collected from area-strata described by Eggers et al. (2011) and the stock-specific harvest and harvest rates reported by Habicht et al. (2012a).

### INTERPRETING RESULTS

Interpreting the results from this report and the harvest and harvest rates report (Habicht et al. 2012a) requires knowledge about the precision and accuracy of estimates provided. The precision and accuracy of stock composition estimates is affected by three main sources of uncertainty: 1) the size and representative nature of the catch sample, 2) the representation of the contributing stocks by the genetic baseline (Kalinowski 2004), and 3) the ability of the statistical method to estimate stock composition accurately and precisely, which is dependent on the underlying genetic distinction of each stock (Koljonen et al. 2005).

#### Size and representativeness of the catch samples

We set a minimum sample size of 100 and a target sample size of 400 fish to represent temporal-area strata. Under a worst-case scenario of 2 to 3 stocks contributing equally to the harvest, this level of sampling should provide estimates that are within 8% ( $n=100$ ) and 5% ( $n=400$ ) of the true proportion, 90% of the time of the time, assuming no genetic error (Thompson 1987). Most of the time, stock compositions are different from these worst-case conditions and greater precision is possible given the target sample sizes.

To increase the representativeness of the catch sample, samples were generally taken over time within a temporal stratum. This sampling design was designed to provide better representation of potential changes in stock composition through time within strata. Specific catch sampling details, including dates sampled, date-specific sample sizes and associated harvest numbers, can be found in Eggers et al. (2011).

#### Representation of contributing populations

The genetic baseline used in this analysis was intensively sampled from sockeye salmon spawning locations between Cape Suckling and Cape Prince of Wales. The final baseline was composed of 39,205 individuals from 450 collections representing 294 populations within this area. An average of 133 individuals was sampled from each spawning area to provide precise estimates of allele frequencies and genetic variation within populations. This baseline contains more than 10,000 additional fish and twice the number of markers as the previously-published baseline (Habicht et al. 2010). Testing of the baseline with samples of known stock composition

that were external to the baseline (e.g., escapement samples) demonstrated that the baseline represented an adequate amount of the genetic variability within reporting groups to perform MSA well for the tested reporting groups (Dann et al. 2012a). In addition, AP and regional ADF&G staff reviewed the baseline populations to help ensure that they were comprehensive and represented the production of sockeye salmon from respective reporting groups. A complete description of the baseline can be found in Dann et al. (2012a).

### **Ability of the statistical method to estimate stock composition**

The accuracy of a stock composition estimate is influenced by biases in allocation of contributions to populations in the baseline. These biases are known to exist, but are not well characterized because they are influenced by both the composition of the mixture (catch sample) and the performance of the statistical model. The best characterized biases are those for mixtures composed of fish from a single reporting group. These biases are caused by a tendency for the model to allocate extra fish to reporting groups that are absent or are present in smaller proportions and allocate away from stocks that are present in larger proportions within the catch sample. Biases in estimation of stock composition are characterized for each reporting group using proof tests and samples of known composition (e.g., escapement samples) as described in Dann et al. (2012a). We do not provide bias corrections in our estimates.

For sockeye salmon, most reporting groups are highly identifiable and we expect little bias associated with estimates for those groups. However, biases are most pronounced among reporting groups with populations that share genetic similarity. For sockeye salmon, genetic similarity among populations of sea/river ecotype sockeye salmon drives the most pronounced biases in our baseline (Dann et al. 2012a). Populations of sea/river ecotype sockeye salmon within the WASSIP area are concentrated in western Bristol Bay and Kuskokwim Bay drainages and include populations in the Nushagak, Togiak, Goodnews, Kanektok, and Kuskokwim reporting groups. Stock composition estimates that we think may be influenced by these biases are footnoted in the tables and appendices.

The precision of stock composition estimates is driven by a combination of sample size and genetic distinction among reporting groups. This measure is well characterized by the posterior distribution of the estimate and is summarized in the results with the 90% credibility interval and the standard deviation. A 90% credibility interval can be interpreted to mean that there is a 90% chance that the true value lies somewhere within this interval, and should guide interpretation of the estimates we report.

### **ERRORS IN SAMPLING**

Stock composition estimates may be affected by errors in sampling. One source of error is record keeping of catch samples. A large number of samples were collected during this study from numerous locations throughout Western Alaska. It is possible that fish believed to have been harvested in a given district-stratum were actually harvested elsewhere or at a different time. We were often dependent on processors for information defining a specific date and location of catch for the fish we sampled. Aberrant results that diverge from associated strata may be an indication of this type of error in sampling.

For example, the stock composition of the harvest from the Alagnak River SHA (ARSHA; Naknek-Kvichak Stratum 6; 7/7–12/2006; Appendix G14) indicated that 14.9% of the harvest was contributed by the Wood reporting group. ARSHA is within the Naknek-Kvichak District

on the Eastside of Bristol Bay. The next highest estimate of the Wood reporting group in any Naknek-Kvichak District harvests was 7.8% during the 6/12–27/2007 stratum (Appendix G16). After that estimate, the highest allocation to any of the 4 Western Bristol Bay reporting groups for the other 17 strata sampled in the Naknek-Kvichak Districts from 2006 to 2008 was 2.6%. The ARSHA sample result is highly unlikely, given the performance of this baseline to adequately identify reporting groups (especially the highly-identifiable Alagnak River reporting group). It is also highly unlikely that there were actually Wood River fish present in ARSHA, given the terminal location of ARSHA, well removed from Wood River, and the low percentage of Wood River fish in other samples collected in Naknek-Kvichak District. Therefore, error due to fishery sampling was the most likely cause of this result. Interestingly, this particular error was documented in past stock composition analyses based upon a reduced marker set where a subset of these samples, taken on July 9, 2006, were analyzed and 17% of that sample allocated to Wood reporting group (Dann et al. 2009).

## **VARIABILITY AND MAKING INFERENCES WITHIN AND OUTSIDE OF WASSIP YEARS**

Like most other scientific studies, WASSIP analyses represent environmental and fishery conditions during a specific period of time. Nonetheless, these studies are conducted so that future scientific and policy activities may be better informed. We expect that WASSIP results will be cited for many years to come as the most comprehensive data set available to examine stock composition of sockeye and chum salmon in commercial and subsistence fisheries of Western Alaska. However, while this 3-year data set provides some measure of inter-annual variability in stock composition, some caution must be exercised when extrapolating the results to years not analyzed because changes in relative abundance among reporting groups, prosecution of fisheries, or migratory behavior due to ocean conditions might affect distribution of stock-specific harvests among fisheries.

In this study we observed large changes in stock composition within some fisheries and consistent patterns within other fisheries across years. For example, in the Western and Perryville districts of the Chignik Area (Tables 15-17, Figure 4, Appendices B13-B15), Chignik and East of WASSIP reporting groups made up almost all the catch in 2006 (99%-100%), decreased in 2007 (84%-90%), and decreased considerably in 2008 (40%-69%). On the other hand, the Chignik Bay District demonstrated consistent patterns among all years with Black Lake reporting group accounting for almost all the catch in early strata and Chignik Lake reporting group accounting for almost all the catch in late strata (Tables 9-14, Figure 3, Appendices B7-B12). These comparisons highlight that even this extensive data set over three years may provide limited insight into inter-annual stability of stock composition within fisheries. Longer-term variation in salmon productivity and migratory behavior (Thompson et al. 1992; Sayre et al. 2006) resulting from decadal scale environmental change, (e.g., Pacific Decadal Oscillation; Mantua et al. 1997) should be considered when extrapolating results from years sampled in WASSIP.

## **HARVEST OF IMMATURE OCEAN-AGE-2 FISH**

The persistent and higher than expected proportion of Bristol Bay stocks in fisheries on the south side of the Alaska Peninsula in July was an unexpected result when reviewing draft estimates of stock compositions. Bristol Bay stocks were observed in Western and Perryville districts in July of 2007 and 2008 (Tables 16-17; Figure 4), Shumagin Islands Section post-June fishery in all

years (Tables 37-41; Figure 12), and Ikatan area post-June fishery in all years with available estimates (Tables 45-46; Figure 14). These estimates were higher than expected with both early- and late-run Bristol Bay stocks present. The presence of maturing Bristol Bay stocks is inconsistent with typical run timings and the migration distance and travel time between these fisheries and Bristol Bay spawning grounds.

Given that these stocks are highly identifiable and these results are unlikely to be the result of bias in MSA (Dann et al. 2012a), a hypothesis that might explain these results is the catch of immature 2-ocean fish. Many of the fisheries on the south side of the Alaska Peninsula employ both seine and gillnet gear and have the potential to retain smaller fish of a younger age. Foster et al. (2000) documented the presence of immature 2-ocean fish of varying size in the Shumagin Island fishery during July. These fish are not migrating to their natal stream to spawn in the sampled year and therefore might be farther from their spawning grounds late in the season than maturing salmon. These 2-ocean fish also overlap in size with maturing 1- and 2-ocean fish and some are likely large enough for processing, making them available for WASSIP sampling.

East of WASSIP fish in Northern District fisheries also suggests possible harvest of immature fish. These estimates were higher than expected based on the migration distance and travel time between the North Alaska Peninsula and spawning grounds. While the Northern District fishery is primarily gillnet gear, and wouldn't be expected to harvest many smaller-sized fish, immature 2-ocean fish could overlap in size with maturing fish such that they are harvested by the size-selective gear of the area. Contributions from East of WASSIP often increased in proportion late in the season (see Bear River Section, Three Hills Section, Ilnik Section southern and northern statistical areas in 2006 and 2007, Outer Port Heiden Section in 2007; Tables 47-51, 53-54, 56; Figures 15-19; Appendices F1-F5, F7-F8, F10). However, it should be noted that these proportional increases must be interpreted with the harvest numbers each stratum represents (Eggers et al. 2011). While the presence of immature 2-ocean salmon may also explain the higher-than-expected East of WASSIP fish in the Northern District, it is also possible that some of these fish may be maturing, late-run populations from the East of WASSIP group.

To determine if the detection of East of WASSIP reporting groups in these fisheries was due to MSA biases, the AP asked for simulated fishery mixtures with East of WASSIP representation from 0% to 20%. Three simulations, replicated 5 times each for a total of 15 simulated mixtures, with East of WASSIP represented at 0% resulted in allocations to East of WASSIP below 0.05% in all 15 mixtures (Habicht and Dann 2012). These results do not support the hypothesis of an intrinsic bias toward the East of WASSIP reporting group in the analysis. The 5 replicates of the simulation with East of WASSIP represented at 20% allocated 18.3% to 19.2% to East of WASSIP, indicating a slight bias away from the reporting group.

## **CLOSING REMARKS**

The Gene Conservation Laboratory typically conducts 5 'large' MSA projects annually and each involves samples from approximately 10,000-20,000 fish to represent fishery harvest. Of these, approximately 5,000-8,000 fish are analyzed to estimate stock compositions and stock-specific harvests. The sockeye salmon portion of WASSIP is an order of magnitude larger, and provides the most comprehensive examination of stock compositions across Western Alaska sockeye salmon fisheries to date. The stock-specific harvest composition estimates reported here and the subsequent estimates of stock-specific harvest (reported by Habicht et al. 2012a) provide reliable stock-specific information to fishery managers and regulatory decision makers, improves



understanding of stock productivity, and sheds light on the migratory pathways of sockeye salmon in nearshore marine waters of Western Alaska.

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## **TABLES**

Table 1.–Catch strata identified, and reason why they were identified, by ADF&G regional staff for re-analysis as part of the reporting quality control measures. A complete statistical re-analysis of these strata uncovered no errors.

Catch strata	Reason
Western Perryville districts, 2008 Stratum 3 (7/21–31)	Only 25% Chignik; 35% Bristol Bay; >10% both North and South Peninsula
SW Stepovak sections, 2008 Stratum 3 (7/26–8/20)	62% East of WASSIP, 37% Chignik
Shumagin Islands Section, 2008 Stratum 4 (8/1–21)	41% East of WASSIP
Dolgoi Island area (June), 2006 Stratum 1 (6/7–13)	55% Chignik, 39% East of WASSIP
Unimak District (June), 2006 Stratum 1 (6/7–13)	51% Chignik
Ilnik North, 2007 Stratum 3 (7/16–31)	20% East of WASSIP
Outer Port Heiden Section, 2008 Stratum 3 (7/14–15)	90% Bristol Bay
Egegik District, 2007 Stratum 4 (7/9–14)	Nonlocal estimates changed from Bristol Bay report
Togiak District, 2007 Stratum 1 (6/18–7/6)	Highest nonlocal proportion of all Togiak mixtures
W5 Commercial, 2007 Stratum 3 (7/18–8/31)	Highest nonlocal proportion of all Kuskokwim mixtures

Table 2.–Quality control (QC) results including the number of genotypes compared, discrepancy rates and estimated error rates of the collections genotyped for the WASSIP sockeye salmon catch samples for the 3 methods used: New, 39 and Assay. See text for descriptions of methods and QC details. Discrepancy rates include the rate due to differences of alternate homozygote genotypes (Homo-homo), of homozygote and heterozygote genotypes (Homo-het), and the total discrepancy rate. Error rate assumes that differences are the result of errors that are equally likely to have occurred in the production and QC genotyping process.

QC Method	Genotypes compared	Discrepancy rate			Error Rate
		Homo-homo	Homo-het	Overall	
New	586,181	0.01%	0.42%	0.43%	0.22%
39	536,562	0.02%	0.42%	0.43%	0.22%
Assay	45,408	0.01%	0.25%	0.26%	0.13%
Total	1,168,151	0.02%	0.42%	0.42%	0.21%

Table 3.—Central District, Chignik Area, Westward Region, 2006, temporal strata 1–3. Regional and subregional (within Chignik) reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (6/16–6/17; H=4,122; n=397)					Stratum 2 (6/26–6/30; H=41,988; n=382)					Stratum 3 (7/2–7/11; H=26,607; n=374)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%				5%	95%		
Norton Sound		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
Kuskokwim Bay		0.0	0.0	0.2	0.74	0.1	0.0	0.0	0.0	0.78	0.1	0.0	0.0	0.3	0.69	0.2
Bristol Bay		2.4	1.2	3.9	0.00	0.8	1.4	0.5	2.5	0.00	0.6	3.0	1.5	4.8	0.00	1.0
North Peninsula		0.3	0.0	1.2	0.32	0.4	0.5	0.0	1.3	0.06	0.4	0.1	0.0	0.8	0.46	0.3
South Peninsula		0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.1	0.85	0.2
Chignik		96.2	94.4	97.7	0.00	1.0	97.6	96.1	98.8	0.00	0.8	94.7	92.5	96.7	0.00	1.3
East of WASSIP		1.1	0.4	2.1	0.00	0.5	0.5	0.1	1.3	0.00	0.4	2.1	1.0	3.5	0.00	0.8
Chignik	Black Lake	93.5	88.9	97.1	0.00	2.6	96.1	91.9	98.5	0.00	2.1	80.7	75.6	85.6	0.00	3.1
	Chignik Lake	2.7	0.0	7.1	0.18	2.4	1.5	0.0	5.6	0.23	2.0	14.0	9.5	18.9	0.00	2.9

*Note:* Stock composition estimates may not sum to 100% due to rounding error.

*Note:* H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Table 4.—Central District, Chignik Area, Westward Region, 2006, temporal stratum 4. Regional and subregional (within Chignik) reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 4 (7/13–7/28; H=25,121; n=386)				
		Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%		
	Norton Sound	0.0	0.0	0.0	0.92	0.0
	Kuskokwim Bay	0.0	0.0	0.1	0.77	0.1
	Bristol Bay	0.3	0.0	0.9	0.04	0.3
	North Peninsula	0.3	0.0	0.9	0.01	0.3
	South Peninsula	0.0	0.0	0.0	0.91	0.1
	Chignik	97.4	95.8	98.7	0.00	0.9
	East of WASSIP	2.0	0.8	3.5	0.00	0.8
Chignik	Black Lake	36.3	30.4	42.3	0.00	3.6
	Chignik Lake	61.1	55.0	67.1	0.00	3.7

*Note:* Stock composition estimates may not sum to 100% due to rounding error.

*Note:* H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.



Table 5.—Central District, Chignik Area, Westward Region, 2007, temporal strata 1–3. Regional and subregional (within Chignik) reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (6/15–6/17; H=4,612; n=395)					Stratum 2 (6/25-7/2; H=15,953; n=395)					Stratum 3 (7/3-7/16; H=39,388; n=396)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%				5%	95%		
Norton Sound		0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.92	0.0
Kuskokwim Bay		0.7	0.0	2.1	0.22	0.7	0.0	0.0	0.3	0.70	0.1	0.4	0.0	1.5	0.48	0.6
Bristol Bay		18.6	15.3	22.1	0.00	2.1	2.5	1.4	4.0	0.00	0.8	1.7	0.5	3.1	0.00	0.8
North Peninsula		0.0	0.0	0.3	0.54	0.1	0.1	0.0	0.3	0.53	0.2	0.1	0.0	0.3	0.53	0.2
South Peninsula		0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.91	0.1	0.1	0.0	0.7	0.68	0.3
Chignik		80.5	77.1	83.8	0.00	2.0	97.4	95.9	98.6	0.00	0.8	97.2	95.5	98.5	0.00	0.9
East of WASSIP		0.1	0.0	0.5	0.61	0.2	0.0	0.0	0.0	0.92	0.0	0.6	0.1	1.5	0.01	0.5
Chignik	Black Lake	80.4	76.8	83.7	0.00	2.1	94.0	89.5	98.1	0.00	2.7	25.3	20.0	30.8	0.00	3.3
	Chignik Lake	0.1	0.0	0.7	0.77	0.6	3.4	0.0	7.6	0.21	2.6	71.9	66.3	77.4	0.00	3.4

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Table 6.—Central District, Chignik Area, Westward Region, 2007, temporal stratum 4. Regional and subregional (within Chignik) reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 4 (7/20–7/31; H=58,070; n=397)				
		Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%		
	Norton Sound	0.0	0.0	0.0	0.92	0.0
	Kuskokwim Bay	0.1	0.0	0.5	0.63	0.2
	Bristol Bay	2.4	1.2	3.9	0.00	0.9
	North Peninsula	0.2	0.0	1.2	0.35	0.4
	South Peninsula	0.3	0.0	1.3	0.51	0.5
	Chignik	95.4	93.1	97.4	0.00	1.3
	East of WASSIP	1.6	0.3	3.2	0.00	0.9
Chignik	Black Lake	8.8	5.2	12.8	0.00	2.3
	Chignik Lake	86.7	82.2	90.7	0.00	2.6

*Note:* Stock composition estimates may not sum to 100% due to rounding error.

*Note:* H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Table 7.—Central District, Chignik Area, Westward Region, 2008, temporal strata 1–3. Regional and subregional (within Chignik) reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (6/24–6/25; H=7,350; n=382)					Stratum 2 (6/26–7/1; H=24,296; n=190)					Stratum 3 (7/4–7/10; H=22,887; n=396)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%				5%	95%		
Norton Sound		0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0
Kuskokwim Bay		0.4	0.0	1.2	0.01	0.4	0.0	0.0	0.2	0.74	0.2	0.0	0.0	0.1	0.77	0.1
Bristol Bay		14.3	11.3	17.4	0.00	1.9	7.3	4.3	10.8	0.00	2.0	4.0	2.4	5.9	0.00	1.1
North Peninsula		0.2	0.0	1.0	0.43	0.4	0.5	0.0	1.9	0.14	0.7	0.1	0.0	0.6	0.48	0.3
South Peninsula		1.2	0.4	2.3	0.00	0.6	1.3	0.0	3.2	0.10	1.0	3.6	2.2	5.3	0.00	1.0
Chignik		81.6	78.1	84.9	0.00	2.1	87.7	83.4	91.5	0.00	2.5	86.4	83.2	89.3	0.00	1.8
East of WASSIP		2.3	1.0	3.9	0.00	0.9	3.2	1.3	5.7	0.00	1.4	5.9	3.9	8.2	0.00	1.3
Chignik	Black Lake	78.2	72.6	83.3	0.00	3.3	77.9	70.7	84.4	0.00	4.2	33.1	27.0	39.4	0.00	3.8
	Chignik Lake	3.4	0.0	8.3	0.17	2.7	9.8	4.3	16.4	0.00	3.7	53.2	46.7	59.7	0.00	4.0

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Table 8.—Central District, Chignik Area, Westward Region, 2008, temporal stratum 4. Regional and subregional (within Chignik) reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 4 (7/18–7/31; H=16,525; n=433)				
		Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%		
	Norton Sound	0.0	0.0	0.0	0.92	0.0
	Kuskokwim Bay	0.0	0.0	0.2	0.74	0.2
	Bristol Bay	1.5	0.6	2.7	0.00	0.7
	North Peninsula	0.1	0.0	0.7	0.43	0.3
	South Peninsula	1.0	0.3	2.0	0.00	0.6
	Chignik	93.7	91.4	95.7	0.00	1.3
	East of WASSIP	3.6	2.1	5.5	0.00	1.0
Chignik	Black Lake	7.0	3.8	10.6	0.00	2.1
	Chignik Lake	86.7	82.6	90.5	0.00	2.4

*Note:* Stock composition estimates may not sum to 100% due to rounding error.

*Note:* H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Table 9.—Chignik Bay District, Chignik Area, Westward Region, 2006, temporal strata 1–3. Regional and subregional (within Chignik) reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (6/8–6/19; H=105,006; n=400)					Stratum 2 (6/25–6/28; H=132,178; n=399)					Stratum 3 (6/29–7/4; H=116,238; n=379)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%				5%	95%		
Norton Sound		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.89	0.1	0.0	0.0	0.0	0.92	0.0
Kuskokwim Bay		0.0	0.0	0.0	0.78	0.1	0.0	0.0	0.0	0.78	0.1	0.0	0.0	0.0	0.78	0.1
Bristol Bay		0.2	0.0	0.8	0.09	0.3	0.5	0.0	1.5	0.10	0.5	0.8	0.1	1.8	0.00	0.5
North Peninsula		0.0	0.0	0.1	0.56	0.1	0.1	0.0	0.4	0.50	0.2	0.0	0.0	0.2	0.55	0.1
South Peninsula		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0
Chignik		99.7	99.1	100.0	0.00	0.3	99.4	98.4	100.0	0.00	0.5	99.2	98.2	99.9	0.00	0.5
East of WASSIP		0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0
Chignik	Black Lake	98.6	95.0	100.0	0.00	1.7	98.5	95.4	100.0	0.00	1.5	84.0	77.7	89.7	0.00	3.6
	Chignik Lake	1.1	0.0	4.7	0.28	1.7	0.9	0.0	4.0	0.22	1.4	15.2	9.5	21.5	0.00	3.6

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Table 10.—Chignik Bay District, Chignik Area, Westward Region, 2006, temporal strata 4–6. Regional and subregional (within Chignik) reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 4 (7/5–7/10; H=62,390; n=399)					Stratum 5 (7/11–7/19; H=87,291; n=398)					Stratum 6 (7/21–7/31; H=156,065; n=398)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%				5%	95%		
Norton Sound		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
Kuskokwim Bay		0.0	0.0	0.0	0.79	0.0	0.0	0.0	0.0	0.79	0.0	0.0	0.0	0.0	0.78	0.1
Bristol Bay		1.2	0.4	2.3	0.00	0.6	0.9	0.2	1.8	0.00	0.5	0.3	0.0	0.8	0.02	0.3
North Peninsula		0.0	0.0	0.2	0.55	0.1	0.0	0.0	0.1	0.56	0.1	0.0	0.0	0.2	0.54	0.1
South Peninsula		0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1
Chignik		98.7	97.6	99.6	0.00	0.6	99.1	98.1	99.8	0.00	0.5	99.7	99.1	100.0	0.00	0.3
East of WASSIP		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
Chignik	Black Lake	70.6	63.9	76.9	0.00	4.0	42.2	36.4	48.0	0.00	3.5	13.6	9.5	18.1	0.00	2.6
	Chignik Lake	28.2	21.8	34.8	0.00	3.9	56.9	51.1	62.7	0.00	3.5	86.0	81.5	90.2	0.00	2.6

*Note:* Stock composition estimates may not sum to 100% due to rounding error.

*Note:* H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Table 11.—Chignik Bay District, Chignik Area, Westward Region, 2007, temporal strata 1–3. Regional and subregional (within Chignik) reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (6/9–6/19; H=45,221; n=397)					Stratum 2 (6/22–6/26; H=39,470; n=398)					Stratum 3 (6/28–7/4; H=78,118; n=397)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%				5%	95%		
	Norton Sound	0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Kuskokwim Bay	0.0	0.0	0.0	0.78	0.1	0.0	0.0	0.0	0.79	0.1	0.0	0.0	0.0	0.79	0.1
	Bristol Bay	1.2	0.4	2.3	0.00	0.6	1.3	0.5	2.4	0.00	0.6	1.2	0.4	2.3	0.00	0.6
	North Peninsula	0.3	0.0	1.0	0.16	0.4	0.0	0.0	0.2	0.54	0.1	0.0	0.0	0.2	0.56	0.1
	South Peninsula	0.0	0.0	0.0	0.92	0.0	0.1	0.0	0.5	0.82	0.2	0.0	0.0	0.0	0.92	0.0
	Chignik	98.5	97.2	99.4	0.00	0.7	98.6	97.4	99.5	0.00	0.6	98.8	97.7	99.6	0.00	0.6
	East of WASSIP	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.2	0.82	0.1	0.0	0.0	0.0	0.92	0.0
Chignik	Black Lake	98.5	97.1	99.4	0.00	0.8	91.1	86.9	94.8	0.00	2.4	77.0	70.8	82.8	0.00	3.7
	Chignik Lake	0.0	0.0	0.0	0.91	0.3	7.5	3.9	11.7	0.00	2.4	21.7	16.0	27.9	0.00	3.6

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Table 12.—Chignik Bay District, Chignik Area, Westward Region, 2007, temporal strata 4–6. Regional and subregional (within Chignik) reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 4 (7/5–7/11; H=66,463; n=400)					Stratum 5 (7/12–7/16; H=78,697; n=396)					Stratum 6 (7/20–7/31; H=141,849; n=399)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%				5%	95%		
Norton Sound		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
Kuskokwim Bay		0.0	0.0	0.0	0.78	0.1	0.0	0.0	0.0	0.79	0.0	0.0	0.0	0.0	0.79	0.1
Bristol Bay		1.9	0.8	3.2	0.00	0.7	0.6	0.1	1.3	0.00	0.4	0.0	0.0	0.2	0.46	0.1
North Peninsula		0.0	0.0	0.2	0.55	0.1	0.0	0.0	0.2	0.55	0.1	0.0	0.0	0.2	0.55	0.1
South Peninsula		0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
Chignik		97.9	96.4	99.0	0.00	0.8	99.4	98.5	99.9	0.00	0.4	99.9	99.6	100.0	0.00	0.2
East of WASSIP		0.2	0.0	0.7	0.15	0.3	0.1	0.0	0.4	0.75	0.2	0.0	0.0	0.0	0.92	0.0
Chignik	Black Lake	25.0	19.9	30.3	0.00	3.1	10.6	6.4	15.3	0.00	2.7	7.7	4.5	11.2	0.00	2.0
	Chignik Lake	72.9	67.6	78.0	0.00	3.2	88.7	84.0	93.0	0.00	2.7	92.3	88.7	95.4	0.00	2.1

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.



Table 13.—Chignik Bay District, Chignik Area, Westward Region, 2008, temporal strata 1–3. Regional and subregional (within Chignik) reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (6/9–6/25; H=55,871; n=398)					Stratum 2 (6/26–7/1; H=114,252; n=397)					Stratum 3 (7/4–7/5; H=43,296; n=397)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%				5%	95%		
Norton Sound		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
Kuskokwim Bay		0.2	0.0	1.0	0.55	0.4	0.0	0.0	0.0	0.79	0.1	0.0	0.0	0.0	0.78	0.1
Bristol Bay		0.2	0.0	0.8	0.16	0.3	0.4	0.0	1.1	0.01	0.4	0.5	0.1	1.2	0.00	0.4
North Peninsula		0.3	0.0	0.8	0.09	0.3	0.1	0.0	0.8	0.45	0.3	0.1	0.0	0.6	0.33	0.2
South Peninsula		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.1
Chignik		99.4	98.4	99.9	0.00	0.5	99.5	98.6	100.0	0.00	0.4	99.4	98.5	99.9	0.00	0.4
East of WASSIP		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
Chignik	Black Lake	94.1	89.7	99.4	0.00	2.8	85.7	79.2	92.0	0.00	3.9	52.9	46.6	59.1	0.00	3.8
	Chignik Lake	5.3	0.0	9.6	0.09	2.7	13.8	7.5	20.2	0.00	3.9	46.5	40.3	52.8	0.00	3.8

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Table 14.–Chignik Bay District, Chignik Area, Westward Region, 2008, temporal strata 4 and 6. Regional and subregional (within Chignik) reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 4 (7/6–7/10; H=61,138; n=400)					Stratum 6 (7/18–7/31; H=88,042; n=397)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%		
	Norton Sound	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Kuskokwim Bay	0.0	0.0	0.0	0.79	0.0	0.0	0.0	0.0	0.79	0.1
	Bristol Bay	0.1	0.0	0.3	0.45	0.1	0.7	0.2	1.6	0.00	0.4
	North Peninsula	0.0	0.0	0.2	0.54	0.1	0.0	0.0	0.2	0.56	0.1
	South Peninsula	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Chignik	99.9	99.5	100.0	0.00	0.2	99.2	98.4	99.8	0.00	0.5
	East of WASSIP	0.0	0.0	0.0	0.93	0.0	0.0	0.0	0.0	0.92	0.0
Chignik	Black Lake	45.4	38.7	52.2	0.00	4.1	8.4	5.0	12.1	0.00	2.2
	Chignik Lake	54.5	47.7	61.2	0.00	4.1	90.8	87.1	94.3	0.00	2.2

*Note:* Stock composition estimates may not sum to 100% due to rounding error.

*Note:* H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Table 15.–Western and Perryville districts, Chignik Area, Westward Region, 2006, temporal strata 2–3. Regional and subregional (within Chignik) reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 2 (7/11–7/16; H=30,032; n=369)					Stratum 3 (7/20–7/28; H=32,347; n=330)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%		
		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.92	0.0	
		0.0	0.0	0.0	0.77	0.1	0.0	0.0	0.78	0.1	
		1.0	0.3	2.1	0.00	0.6	0.4	0.0	1.3	0.08	0.5
		0.1	0.0	0.3	0.52	0.2	0.1	0.0	0.5	0.49	0.3
		0.0	0.0	0.0	0.88	0.1	0.0	0.0	0.0	0.90	0.1
		65.6	61.4	69.7	0.00	2.5	68.6	64.2	73.0	0.00	2.7
		33.3	29.3	37.4	0.00	2.5	30.8	26.6	35.3	0.00	2.7
Chignik	Black Lake	51.5	46.2	56.8	0.00	3.2	22.1	17.0	27.6	0.00	3.2
	Chignik Lake	14.1	9.9	18.6	0.00	2.6	46.5	40.6	52.5	0.00	3.6

*Note:* Stock composition estimates may not sum to 100% due to rounding error.

*Note:* H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Table 16.–Western and Perryville districts, Chignik Area, Westward Region, 2007, temporal strata 2–3. Regional and subregional (within Chignik) reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 2 (7/9–7/15; H=59,684; n=399)					Stratum 3 (7/20–7/31; H=48,923; n=399)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%		
	Norton Sound	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.90	0.1
	Kuskokwim Bay	1.2	0.0	2.8	0.15	0.9	2.5	0.9	4.3	0.02	1.1
	Bristol Bay	12.1	9.1	15.3	0.00	1.9	5.1	3.0	7.6	0.00	1.4
	North Peninsula	2.2	0.4	4.3	0.02	1.2	2.7	0.9	4.9	0.00	1.2
	South Peninsula	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.90	0.1
	Chignik	66.1	62.0	70.1	0.00	2.5	50.8	46.4	55.3	0.00	2.7
	East of WASSIP	18.5	15.2	22.0	0.00	2.1	38.8	34.4	43.4	0.00	2.7
Chignik	Black Lake	29.8	24.6	35.2	0.00	3.2	8.7	5.3	12.4	0.00	2.2
	Chignik Lake	36.3	30.9	41.9	0.00	3.4	42.1	37.0	47.3	0.00	3.1

*Note:* Stock composition estimates may not sum to 100% due to rounding error.

*Note:* H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Table 17.—Western and Perryville districts, Chignik Area, Westward Region, 2008, temporal strata 1-3. Regional reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (6/24–6/30; H=20,421; n=396)					Stratum 2 (7/5–7/9; H=14,170; n=173)					Stratum 3 (7/21–7/31; H=15,793; n=526)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%				5%	95%		
Norton Sound		0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0
Kuskokwim Bay		4.0	2.2	6.0	0.00	1.2	1.9	0.4	4.1	0.00	1.2	0.5	0.0	2.2	0.33	0.8
Bristol Bay		35.9	31.8	40.2	0.00	2.5	6.6	3.6	10.2	0.00	2.0	35.0	31.2	38.9	0.00	2.3
North Peninsula		0.3	0.0	1.3	0.23	0.5	3.1	0.8	6.2	0.00	1.7	11.5	8.5	14.5	0.00	1.8
South Peninsula		1.7	0.7	3.1	0.00	0.7	19.2	14.0	24.9	0.00	3.3	13.3	10.6	16.3	0.00	1.8
Chignik		48.6	44.3	52.9	0.00	2.6	54.3	47.6	60.9	0.00	4.0	25.0	21.7	28.5	0.00	2.1
East of WASSIP		9.5	7.0	12.3	0.00	1.6	14.9	10.3	20.0	0.00	3.0	14.6	11.9	17.6	0.00	1.7
Chignik	Black Lake	42.8	37.1	48.7	0.00	3.5	14.2	8.4	20.6	0.00	3.7	0.7	0.0	2.6	0.15	0.9
	Chignik Lake	5.8	0.9	10.6	0.00	2.9	40.1	32.5	47.8	0.00	4.7	24.3	20.8	27.9	0.00	2.2

*Note:* Stock composition estimates may not sum to 100% due to rounding error.

*Note:* H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Table 18.—East Stepovak and Stepovak Flats sections, Southeastern District Mainland area, Southeastern District, Alaska Peninsula Area, Westward Region, 2006, temporal strata 2–3. Regional reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 2 (7/20–7/21; H=50,823; n=399)					Stratum 3 (7/26–8/23; H=94,661; n=298)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%		
	Norton Sound	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.92	0.1	
	Kuskokwim Bay	0.0	0.0	0.0	0.78	0.1	0.1	0.0	0.70	0.2	
	Bristol Bay	0.0	0.0	0.2	0.48	0.1	0.6	0.0	1.8	0.6	
	North Peninsula	0.0	0.0	0.2	0.55	0.1	0.1	0.0	0.9	0.4	
	South Peninsula	0.0	0.0	0.0	0.92	0.0	0.2	0.0	0.8	0.3	
	Chignik	60.8	56.7	64.9	0.00	2.5	54.3	49.4	59.2	3.0	
	East of WASSIP	39.1	35.1	43.3	0.00	2.5	44.8	39.9	49.7	3.0	

*Note:* Stock composition estimates may not sum to 100% due to rounding error.

*Note:* H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Table 19.—East Stepovak and Stepovak Flats sections, Southeastern District Mainland area, Southeastern District, Alaska Peninsula Area, Westward Region, 2007, temporal stratum 3. Regional reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 3 (8/1–8/20; H=72,315; n=394)				
		Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%		
	Norton Sound	0.0	0.0	0.0	0.92	0.0
	Kuskokwim Bay	0.0	0.0	0.3	0.70	0.2
	Bristol Bay	0.1	0.0	0.5	0.38	0.2
	North Peninsula	0.3	0.0	1.3	0.39	0.5
	South Peninsula	0.0	0.0	0.0	0.89	0.1
	Chignik	37.0	32.9	41.3	0.00	2.6
	East of WASSIP	62.6	58.2	66.8	0.00	2.6

*Note:* Stock composition estimates may not sum to 100% due to rounding error.

*Note:* H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Table 20.—East Stepovak and Stepovak Flats sections, Southeastern District Mainland area, Southeastern District, Alaska Peninsula Area, Westward Region, 2008, temporal stratum 3. Regional reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 3 (7/26–8/20; H=61,811; n=398)				
		Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%		
	Norton Sound	0.0	0.0	0.0	0.92	0.0
	Kuskokwim Bay	0.5	0.0	1.6	0.32	0.6
	Bristol Bay	0.2	0.0	0.8	0.33	0.3
	North Peninsula	1.1	0.3	2.3	0.00	0.6
	South Peninsula	0.0	0.0	0.0	0.91	0.1
	Chignik	45.3	41.0	49.7	0.00	2.6
	East of WASSIP	53.0	48.6	57.4	0.00	2.7

*Note:* Stock composition estimates may not sum to 100% due to rounding error.

*Note:* H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.



Table 21.—Northwest Stepovak Section, Southeastern District Mainland area, Southeastern District, Alaska Peninsula Area, Westward Region, 2008, temporal strata 1–3. Regional reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (7/3–7/5; H=6,616; n=199)					Stratum 2 (7/7–7/25; H=25,053; n=390)					Stratum 3 (7/26–8/20; H=10,245; n=385)				
		90% CI					90% CI					90% CI				
Regional	Subregional	Mean	5%	95%	$P=0$	SD	Mean	5%	95%	$P=0$	SD	Mean	5%	95%	$P=0$	SD
	Norton Sound	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.92	0.1	
	Kuskokwim Bay	0.0	0.0	0.1	0.75	0.2	0.0	0.0	0.0	0.78	0.1	0.9	0.0	2.1	0.08	0.7
	Bristol Bay	3.3	1.4	5.8	0.00	1.4	1.4	0.3	3.1	0.00	0.9	0.1	0.0	0.8	0.41	0.3
	North Peninsula	0.1	0.0	0.6	0.49	0.3	1.8	0.0	3.9	0.04	1.2	0.2	0.0	1.2	0.37	0.5
	South Peninsula	26.9	21.7	32.3	0.00	3.2	38.7	34.6	42.9	0.00	2.5	6.8	4.6	9.3	0.00	1.4
	Chignik	59.5	53.6	65.4	0.00	3.6	43.5	39.2	47.8	0.00	2.6	67.7	63.4	71.8	0.00	2.6
	East of WASSIP	10.2	6.8	14.0	0.00	2.2	14.6	11.5	17.9	0.00	1.9	24.3	20.4	28.3	0.00	2.4

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Table 22.—Southwest Stepovak, Balboa Bay, and Beaver Bay sections (statistical areas 281-70, 281-80, 281-90), Southeastern District Mainland area, Southeastern District, Alaska Peninsula Area, Westward Region, 2006, temporal strata 2–3. Regional reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 2 (7/20–7/21; H=26,690; n=399)					Stratum 3 (7/26–8/23; H=62,253; n=297)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%		
	Norton Sound	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Kuskokwim Bay	0.2	0.0	0.7	0.23	0.3	0.0	0.0	0.1	0.77	0.1
	Bristol Bay	0.1	0.0	0.6	0.36	0.2	0.1	0.0	0.8	0.36	0.3
	North Peninsula	0.2	0.0	0.9	0.34	0.3	0.2	0.0	1.0	0.40	0.4
	South Peninsula	0.7	0.0	1.6	0.14	0.5	0.0	0.0	0.0	0.90	0.1
	Chignik	52.5	48.2	56.8	0.00	2.6	50.0	45.1	54.9	0.00	3.0
	East of WASSIP	46.4	42.1	50.7	0.00	2.6	49.6	44.7	54.5	0.00	3.0

*Note:* Stock composition estimates may not sum to 100% due to rounding error.

*Note:* H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Table 23.– Southwest Stepovak, Balboa Bay, and Beaver Bay sections (statistical areas 281-70, 281-80, 281-90), Southeastern District Mainland area, Southeastern District, Alaska Peninsula Area, Westward Region, 2007, temporal stratum 3. Regional reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 3 (8/1–8/20; H=73,512; n=399)				
		Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%		
	Norton Sound	0.0	0.0	0.0	0.91	0.1
	Kuskokwim Bay	0.0	0.0	0.1	0.76	0.1
	Bristol Bay	0.8	0.2	1.8	0.00	0.5
	North Peninsula	0.5	0.0	1.9	0.28	0.7
	South Peninsula	0.0	0.0	0.0	0.92	0.1
	Chignik	37.0	32.8	41.1	0.00	2.5
	East of WASSIP	61.8	57.4	66.0	0.00	2.6

*Note:* Stock composition estimates may not sum to 100% due to rounding error.

*Note:* H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Table 24.–Southwest Stepovak, Balboa Bay, and Beaver Bay sections (statistical areas 281-70, 281-80, 281-90), Southeastern District Mainland area, Southeastern District, Alaska Peninsula Area, Westward Region, 2008, temporal stratum 3. Regional reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 3 (7/26–8/20; H=46,093; n=398)				
		Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%		
	Norton Sound	0.0	0.0	0.0	0.92	0.1
	Kuskokwim Bay	0.3	0.0	0.8	0.00	0.3
	Bristol Bay	2.2	1.0	3.8	0.00	0.9
	North Peninsula	6.9	4.4	9.7	0.00	1.6
	South Peninsula	3.8	2.2	5.8	0.00	1.1
	Chignik	51.3	46.8	55.8	0.00	2.7
	East of WASSIP	35.4	31.1	39.8	0.00	2.7

*Note:* Stock composition estimates may not sum to 100% due to rounding error.

*Note:* H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Table 25.—Shumagin Islands Section (June; statistical areas all 282-XX), Alaska Peninsula Area, Westward Region, 2006, temporal strata 1–3. Regional reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (6/7–6/13; H=105,356; n=400)					Stratum 2 (6/14–6/20; H=176,663; n=399)					Stratum 3 (6/22–6/29; H=159,219; n=396)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%				5%	95%		
	Norton Sound	0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.0
	Kuskokwim Bay	0.7	0.0	1.8	0.19	0.6	1.6	0.0	3.9	0.05	1.2	1.4	0.0	3.0	0.13	1.0
	Bristol Bay	46.0	41.7	50.3	0.00	2.6	48.2	43.7	52.8	0.00	2.8	61.4	57.0	65.7	0.00	2.7
	North Peninsula	2.7	1.2	4.4	0.00	1.0	2.0	0.2	4.0	0.02	1.2	2.2	0.9	4.0	0.00	1.0
	South Peninsula	0.0	0.0	0.0	0.91	0.1	0.8	0.2	1.6	0.00	0.4	0.1	0.0	0.7	0.84	0.4
	Chignik	7.1	5.1	9.4	0.00	1.3	28.9	25.0	33.0	0.00	2.4	11.4	8.8	14.3	0.00	1.7
	East of WASSIP	43.6	39.4	47.8	0.00	2.6	18.6	15.4	22.0	0.00	2.0	23.5	19.9	27.4	0.00	2.3

*Note:* Stock composition estimates may not sum to 100% due to rounding error.

*Note:* H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Table 26.—Shumagin Islands Section (June; statistical areas all 282-XX), Alaska Peninsula Area, Westward Region, 2007, temporal strata 1–3. Regional reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (6/7–6/13; H=118,519; n=399)					Stratum 2 (6/14–6/20; H=310,690; n=397)					Stratum 3 (6/22–6/29; H=422,989; n=395)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%				5%	95%		
	Norton Sound	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.91	0.1
	Kuskokwim Bay	1.1	0.2	2.4	0.00	0.7	1.5	0.5	2.8	0.00	0.7	1.0	0.0	3.3	0.23	1.1
	Bristol Bay	80.1	76.4	83.5	0.00	2.2	89.2	86.1	92.0	0.00	1.8	89.4	85.9	92.4	0.00	2.0
	North Peninsula	1.3	0.3	2.9	0.01	0.8	0.8	0.0	2.6	0.22	0.9	1.3	0.1	3.0	0.02	0.9
	South Peninsula	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.1
	Chignik	1.1	0.3	2.2	0.00	0.6	2.3	1.1	3.8	0.00	0.8	3.4	2.0	5.0	0.00	1.0
	East of WASSIP	16.5	13.4	19.7	0.00	1.9	6.2	4.1	8.7	0.00	1.4	4.9	3.2	7.0	0.00	1.2

*Note:* Stock composition estimates may not sum to 100% due to rounding error.

*Note:* H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Table 27.—Shumagin Islands Section (June; statistical areas all 282-XX), Alaska Peninsula Area, Westward Region, 2008, temporal strata 2–3. Regional reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 2 (6/14–6/20; H=309,801; n=393)					Stratum 3 (6/22–6/29; H=339,204; n=399)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%		
	Norton Sound	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.92	0.0	
	Kuskokwim Bay	0.1	0.0	0.3	0.63	0.3	7.3	4.2	10.7	0.00	2.0
	Bristol Bay	85.5	82.2	88.6	0.00	1.9	73.9	69.5	78.2	0.00	2.7
	North Peninsula	1.5	0.1	3.3	0.03	1.0	3.0	1.3	5.1	0.00	1.2
	South Peninsula	0.0	0.0	0.0	0.92	0.0	0.1	0.0	0.5	0.76	0.2
	Chignik	3.5	2.0	5.2	0.00	1.0	5.0	3.3	7.1	0.00	1.2
	East of WASSIP	9.4	7.0	12.1	0.00	1.6	10.6	8.1	13.4	0.00	1.6

*Note:* Stock composition estimates may not sum to 100% due to rounding error.

*Note:* H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Table 28.—Dolgoi Island area (June; statistical areas 283-XX, 284-00 through 284-42), Alaska Peninsula Area, Westward Region, 2006, temporal strata 1–3. Regional reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (6/7–6/13; H=47,177; n=363)					Stratum 2 (6/14–6/20; H=78,065; n=395)					Stratum 3 (6/22–6/29; H=117,973; n=388)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%				5%	95%		
	Norton Sound	0.0	0.0	0.0	0.92	0.0	0.1	0.0	0.4	0.80	0.2	0.0	0.0	0.0	0.92	0.0
	Kuskokwim Bay	0.1	0.0	0.4	0.66	0.2	0.1	0.0	0.8	0.63	0.3	0.0	0.0	0.1	0.75	0.1
	Bristol Bay	5.2	3.3	7.5	0.00	1.3	9.9	7.4	12.7	0.00	1.6	5.2	3.4	7.3	0.00	1.2
	North Peninsula	0.1	0.0	0.7	0.49	0.3	0.5	0.0	2.2	0.17	0.8	0.8	0.0	1.9	0.03	0.6
	South Peninsula	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.1	0.87	0.2	0.3	0.0	1.0	0.05	0.3
	Chignik	55.1	50.7	59.5	0.00	2.7	72.3	68.4	76.1	0.00	2.3	74.6	70.8	78.3	0.00	2.3
	East of WASSIP	39.5	35.1	43.9	0.00	2.7	17.1	14.0	20.4	0.00	1.9	19.1	15.8	22.6	0.00	2.1

*Note:* Stock composition estimates may not sum to 100% due to rounding error.

*Note:* H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.



Table 29.—Dolgoi Island area (June; statistical areas 283-XX, 284-00 through 284-42), Alaska Peninsula Area, Westward Region, 2007, temporal strata 1–3. Regional reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (6/7–6/13; H=13,111; n=422)					Stratum 2 (6/14–6/20; H=19,576; n=397)					Stratum 3 (6/22–6/29; H=47,613; n=395)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%				5%	95%		
	Norton Sound	0.1	0.0	0.9	0.71	0.4	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.1
	Kuskokwim Bay	0.0	0.0	0.2	0.73	0.1	0.1	0.0	0.7	0.67	0.3	0.9	0.2	2.1	0.00	0.6
	Bristol Bay	15.1	12.1	18.3	0.00	1.9	23.6	19.9	27.3	0.00	2.3	43.5	39.2	47.8	0.00	2.6
	North Peninsula	0.4	0.0	1.6	0.31	0.6	0.4	0.0	1.8	0.29	0.6	1.3	0.1	3.1	0.01	1.0
	South Peninsula	0.0	0.0	0.0	0.92	0.1	0.1	0.0	1.0	0.85	0.5	0.0	0.0	0.0	0.89	0.2
	Chignik	28.1	24.4	32.0	0.00	2.3	29.3	25.5	33.4	0.00	2.4	18.4	15.2	21.9	0.00	2.0
	East of WASSIP	56.2	52.1	60.4	0.00	2.5	46.4	42.1	50.8	0.00	2.7	35.8	31.7	40.0	0.00	2.5

*Note:* Stock composition estimates may not sum to 100% due to rounding error.

*Note:* H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Table 30.—Dolgoi Island area (June; statistical areas 283-XX, 284-00 through 284-42), Alaska Peninsula Area, Westward Region, 2008, temporal strata 1-3. Regional reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (6/7–6/8; H=399; n=304)					Stratum 2 (6/14–6/20; H=12,742; n=504)					Stratum 3 (6/22–6/29; H=22,197; n=393)				
		90% CI					90% CI					90% CI				
Regional	Subregional	Mean	5%	95%	$P=0$	SD	Mean	5%	95%	$P=0$	SD	Mean	5%	95%	$P=0$	SD
	Norton Sound	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.1
	Kuskokwim Bay	1.3	0.2	2.9	0.01	0.9	0.2	0.0	1.2	0.68	0.5	0.6	0.0	2.6	0.42	0.9
	Bristol Bay	24.4	20.0	29.1	0.00	2.8	50.8	46.9	54.7	0.00	2.4	48.1	43.6	52.5	0.00	2.7
	North Peninsula	3.5	1.2	6.6	0.00	1.7	0.9	0.0	2.3	0.12	0.8	0.0	0.0	0.2	0.55	0.1
	South Peninsula	0.4	0.0	1.2	0.11	0.4	0.2	0.0	1.1	0.74	0.4	0.0	0.0	0.0	0.90	0.1
	Chignik	43.0	38.2	47.9	0.00	3.0	40.6	36.9	44.4	0.00	2.3	30.5	26.6	34.5	0.00	2.4
	East of WASSIP	27.4	22.9	32.0	0.00	2.8	7.4	5.4	9.5	0.00	1.3	20.9	17.5	24.4	0.00	2.1

*Note:* Stock composition estimates may not sum to 100% due to rounding error.

*Note:* H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Table 31.—Ikatan area (June; statistical areas 284-45 through 284-99), Alaska Peninsula Area, Westward Region, 2006, temporal strata 1–3. Regional reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (6/7–6/13; H=5,330; n=639)					Stratum 2 (6/17–6/20; H=20,182; n=339)					Stratum 3 (6/22–6/29; H=13,326; n=394)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%				5%	95%		
	Norton Sound	0.0	0.0	0.0	0.92	0.0	0.2	0.0	1.3	0.81	0.5	0.0	0.0	0.0	0.92	0.1
	Kuskokwim Bay	0.4	0.0	1.0	0.10	0.4	0.2	0.0	1.0	0.57	0.4	0.7	0.0	2.8	0.39	1.0
	Bristol Bay	58.7	55.2	62.1	0.00	2.1	70.7	66.3	74.8	0.00	2.6	52.7	48.0	57.3	0.00	2.8
	North Peninsula	5.8	4.0	7.8	0.00	1.2	1.5	0.4	3.1	0.00	0.8	4.8	2.4	7.6	0.00	1.6
	South Peninsula	0.6	0.2	1.1	0.00	0.3	0.3	0.0	0.9	0.00	0.3	1.5	0.3	3.7	0.00	1.1
	Chignik	10.6	8.6	12.7	0.00	1.3	15.4	12.2	18.9	0.00	2.0	30.2	26.3	34.3	0.00	2.4
	East of WASSIP	24.0	21.2	27.0	0.00	1.8	11.8	9.0	15.0	0.00	1.8	10.1	7.5	13.0	0.00	1.7

*Note:* Stock composition estimates may not sum to 100% due to rounding error.

*Note:* H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Table 32.—Ikatan area (June; statistical areas 284-45 through 284-99), Alaska Peninsula Area, Westward Region, 2007, temporal strata 1–3. Regional reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (6/7–6/13; H=70,806; n=397)					Stratum 2 (6/14–6/20; H=84,170; n=370)					Stratum 3 (6/22–6/29; H=31,351; n=326)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%				5%	95%		
	Norton Sound	0.5	0.0	2.2	0.58	0.8	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.1
	Kuskokwim Bay	2.6	0.8	4.5	0.02	1.1	3.1	0.4	6.2	0.00	1.7	2.4	0.2	5.2	0.02	1.5
	Bristol Bay	82.6	78.5	86.4	0.00	2.4	92.6	89.0	95.8	0.00	2.1	82.0	77.5	86.1	0.00	2.6
	North Peninsula	5.3	2.8	8.2	0.00	1.6	1.2	0.1	2.7	0.01	0.8	1.4	0.0	3.5	0.08	1.1
	South Peninsula	0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.89	0.2
	Chignik	3.5	2.0	5.2	0.00	1.0	1.0	0.2	2.1	0.00	0.6	2.7	1.2	4.6	0.00	1.0
	East of WASSIP	5.6	3.6	8.0	0.00	1.3	2.2	1.0	3.7	0.00	0.8	11.6	8.5	14.8	0.00	1.9

*Note:* Stock composition estimates may not sum to 100% due to rounding error.

*Note:* H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Table 33.—Ikatan area (June; statistical areas 284-45 through 284-99), Alaska Peninsula Area, Westward Region, 2008, temporal strata 2–3. Regional reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 2 (6/14–6/20; H=66,125; n=597)					Stratum 3 (6/22–6/29; H=112,885; n=218)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%		
	Norton Sound	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.91	0.1
	Kuskokwim Bay	0.4	0.0	1.8	0.45	0.6	1.7	0.2	4.0	0.01	1.2
	Bristol Bay	92.4	90.0	94.4	0.00	1.3	91.7	87.6	95.2	0.00	2.3
	North Peninsula	2.6	1.4	4.1	0.00	0.9	1.9	0.0	4.8	0.03	1.5
	South Peninsula	0.3	0.1	0.8	0.00	0.2	0.0	0.0	0.0	0.91	0.1
	Chignik	2.6	1.5	3.8	0.00	0.7	3.3	1.6	5.6	0.00	1.3
	East of WASSIP	1.8	1.0	2.8	0.00	0.6	1.4	0.3	3.0	0.00	0.9

*Note:* Stock composition estimates may not sum to 100% due to rounding error.

*Note:* H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Table 34.—Unimak District (June), Alaska Peninsula Area, Westward Region, 2006, temporal strata 1–2. Regional reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (6/7–6/13; H=57,171; n=364)					Stratum 2 (6/14–6/20; H=138,349; n=375)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%		
Norton Sound		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.92	0.0	
Kuskokwim Bay		0.4	0.0	1.8	0.43	0.1	0.0	0.5	0.72	0.3	
Bristol Bay		30.9	26.7	35.2	0.00	69.5	65.3	73.6	0.00	2.5	
North Peninsula		0.3	0.0	1.4	0.38	4.7	2.5	7.2	0.00	1.4	
South Peninsula		0.8	0.1	1.8	0.04	0.3	0.0	1.1	0.19	0.4	
Chignik		51.3	46.8	55.7	0.00	15.0	11.9	18.3	0.00	1.9	
East of WASSIP		16.4	13.1	20.0	0.00	10.4	7.9	13.2	0.00	1.6	

*Note:* Stock composition estimates may not sum to 100% due to rounding error.

*Note:* H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Table 35.—Unimak District (June), Alaska Peninsula Area, Westward Region, 2007, temporal strata 1–3. Regional reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (6/7–6/13; H=122,908; n=397)					Stratum 2 (6/14–6/20; H=313,938; n=380)					Stratum 3 (6/22–6/29; H=34,169; n=446)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%				5%	95%		
Norton Sound		0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.91	0.1
Kuskokwim Bay		0.4	0.0	2.4	0.51	0.9	3.3	0.4	6.7	0.02	1.9	4.3	2.4	6.3	0.00	1.2
Bristol Bay		86.1	82.4	89.3	0.00	2.1	86.7	82.4	90.6	0.00	2.5	82.3	78.9	85.5	0.00	2.0
North Peninsula		5.0	2.8	7.5	0.00	1.4	1.1	0.1	2.8	0.01	0.9	0.2	0.0	1.3	0.43	0.5
South Peninsula		0.6	0.1	1.3	0.00	0.4	0.1	0.0	0.8	0.65	0.3	0.1	0.0	0.6	0.69	0.2
Chignik		2.9	1.5	4.6	0.00	0.9	2.3	1.1	3.9	0.00	0.9	2.3	1.2	3.7	0.00	0.8
East of WASSIP		5.1	3.3	7.2	0.00	1.2	6.4	4.3	8.7	0.00	1.4	10.8	8.4	13.5	0.00	1.6

*Note:* Stock composition estimates may not sum to 100% due to rounding error.

*Note:* H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Table 36.—Unimak District (June), Alaska Peninsula Area, Westward Region, 2008, temporal strata 1–3. Regional reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (6/7–6/13; H=94,413; n=477)					Stratum 2 (6/14–6/20; H=466,132; n=269)					Stratum 3 (6/22–6/29; H=285,606; n=393)					
		Mean	90% CI			$P=0$	SD	Mean	90% CI			$P=0$	SD	Mean	90% CI		
5%	95%		5%	95%	5%				95%	5%	95%						
Regional	Subregional																
		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.0		
		1.9	0.6	4.0	0.00	1.0	1.7	0.0	3.8	0.07	1.2	0.9	0.0	3.1	0.35	1.1	
		84.0	80.6	87.2	0.00	2.0	94.3	91.2	97.0	0.00	1.8	87.9	84.3	91.0	0.00	2.0	
		11.5	8.8	14.4	0.00	1.7	2.3	0.4	4.5	0.00	1.2	5.3	3.2	7.8	0.00	1.4	
		0.0	0.0	0.0	0.92	0.0	0.4	0.0	1.1	0.00	0.4	1.2	0.3	2.4	0.00	0.7	
		1.3	0.5	2.4	0.00	0.6	1.3	0.3	2.7	0.00	0.8	1.7	0.6	3.0	0.00	0.7	
		1.3	0.5	2.4	0.00	0.6	0.1	0.0	0.5	0.78	0.2	3.0	1.7	4.6	0.00	0.9	

*Note:* Stock composition estimates may not sum to 100% due to rounding error.

*Note:* H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.



Table 37.—Shumagin Islands Section (post-June), Alaska Peninsula Area, Westward Region, 2006, temporal strata 1–3. Regional reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (7/6–7/12; H=113,843; n=397)					Stratum 2 (7/14–7/21; H=75,750; n=406)					Stratum 3 (7/23–7/31; H=85,702; n=396)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%				5%	95%		
	Norton Sound	0.0	0.0	0.0	0.91	0.1	0.1	0.0	1.1	0.80	0.4	0.0	0.0	0.0	0.92	0.0
	Kuskokwim Bay	0.3	0.0	1.5	0.44	0.6	0.2	0.0	0.9	0.62	0.3	0.1	0.0	0.8	0.63	0.3
	Bristol Bay	34.5	30.3	38.7	0.00	2.6	15.8	12.5	19.3	0.00	2.1	1.0	0.1	2.3	0.01	0.7
	North Peninsula	5.9	3.7	8.4	0.00	1.4	0.9	0.0	2.7	0.02	0.9	0.2	0.0	0.9	0.44	0.4
	South Peninsula	0.0	0.0	0.0	0.90	0.1	0.1	0.0	0.5	0.86	0.3	0.0	0.0	0.0	0.91	0.1
	Chignik	14.9	11.8	18.2	0.00	2.0	17.3	14.1	20.7	0.00	2.0	38.4	34.2	42.7	0.00	2.6
	East of WASSIP	44.4	40.1	48.7	0.00	2.6	65.6	61.4	69.8	0.00	2.6	60.4	56.1	64.6	0.00	2.6

*Note:* Stock composition estimates may not sum to 100% due to rounding error.

*Note:* H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Table 38.—Shumagin Islands Section (post-June), Alaska Peninsula Area, Westward Region, 2007, temporal strata 1–3. Regional reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (7/6–7/12; H=138,357; n=365)					Stratum 2 (7/15–7/21; H=100,331; n=396)					Stratum 3 (7/23–7/31; H=120,845; n=396)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%				5%	95%		
Norton Sound		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
Kuskokwim Bay		7.0	3.0	10.7	0.00	2.3	1.8	0.5	3.4	0.00	0.9	6.3	1.6	10.6	0.00	2.8
Bristol Bay		68.7	63.7	74.0	0.00	3.1	45.2	40.7	49.6	0.00	2.7	61.1	55.2	67.7	0.00	3.8
North Peninsula		4.8	2.5	7.5	0.00	1.5	3.6	1.8	5.8	0.00	1.2	6.8	4.5	9.5	0.00	1.5
South Peninsula		0.2	0.0	1.1	0.58	0.4	0.3	0.0	1.6	0.69	0.6	0.2	0.0	0.7	0.37	0.3
Chignik		2.3	1.0	3.9	0.00	0.9	17.3	14.1	20.7	0.00	2.0	5.5	3.5	7.8	0.00	1.3
East of WASSIP		17.0	13.6	20.5	0.00	2.1	31.9	27.9	36.1	0.00	2.5	20.0	16.4	23.8	0.00	2.3

*Note:* Stock composition estimates may not sum to 100% due to rounding error.

*Note:* H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Table 39.—Shumagin Islands Section (post-June), Alaska Peninsula Area, Westward Region, 2007, temporal stratum 4. Regional reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 4 (8/1–8/19; H=39,975; n=431)				
		Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%		
	Norton Sound	0.0	0.0	0.0	0.92	0.0
	Kuskokwim Bay	0.3	0.0	1.0	0.05	0.3
	Bristol Bay	13.2	10.4	16.3	0.00	1.8
	North Peninsula	5.5	3.2	8.3	0.00	1.6
	South Peninsula	1.4	0.0	3.3	0.21	1.1
	Chignik	17.3	14.2	20.7	0.00	2.0
	East of WASSIP	62.2	58.0	66.4	0.00	2.6

*Note:* Stock composition estimates may not sum to 100% due to rounding error

*Note:* H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Table 40.—Shumagin Islands Section (post-June), Alaska Peninsula Area, Westward Region, 2008, temporal stratum 1. Regional reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (7/6–7/12; H=64,152; n=394)					Stratum 2 (7/14–7/21; H=67,162; n=396)					Stratum 3 (7/23–7/31; H=19,235; n=149)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%				5%	95%		
	Norton Sound	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.91	0.1	0.8	0.0	3.8	0.58	1.4
	Kuskokwim Bay	1.6	0.6	2.9	0.00	0.7	0.6	0.0	2.3	0.21	0.8	3.5	0.0	8.0	0.18	2.7
	Bristol Bay	28.4	24.4	32.4	0.00	2.4	11.3	8.4	14.4	0.00	1.8	46.5	39.0	54.1	0.00	4.6
	North Peninsula	4.4	2.4	6.7	0.00	1.3	4.4	2.1	6.9	0.00	1.5	19.3	13.4	26.0	0.00	3.8
	South Peninsula	3.2	1.7	5.1	0.00	1.1	5.1	2.9	7.8	0.00	1.5	4.5	1.7	8.3	0.00	2.0
	Chignik	25.8	21.9	29.8	0.00	2.4	32.1	28.0	36.3	0.00	2.5	9.2	4.8	14.3	0.00	2.9
	East of WASSIP	36.7	32.5	41.1	0.00	2.6	46.5	41.9	51.2	0.00	2.8	16.3	11.1	22.1	0.00	3.4

*Note:* Stock composition estimates may not sum to 100% due to rounding error.

*Note:* H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Table 41.–Shumagin Islands Section (post-June), Alaska Peninsula Area, Westward Region, 2008, temporal stratum 4. Regional reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 4 (8/1–8/21; H=83,849; n=371)				
		Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%		
	Norton Sound	0.1	0.0	1.1	0.80	0.4
	Kuskokwim Bay	0.0	0.0	0.2	0.64	0.1
	Bristol Bay	8.1	5.7	10.8	0.00	1.6
	North Peninsula	17.8	13.9	21.8	0.00	2.4
	South Peninsula	4.0	1.9	6.7	0.00	1.5
	Chignik	27.6	23.6	31.8	0.00	2.5
	East of WASSIP	42.3	37.8	46.9	0.00	2.8

*Note:* Stock composition estimates may not sum to 100% due to rounding error.

*Note:* H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Table 42.—Dolgoi Island area (post-June), Alaska Peninsula Area, Westward Region, 2006, temporal stratum 1. Regional reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (7/6–7/31; H=228,307; n=487)				
		Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%		
	Norton Sound	0.0	0.0	0.0	0.92	0.0
	Kuskokwim Bay	0.0	0.0	0.0	0.78	0.1
	Bristol Bay	1.3	0.4	2.4	0.00	0.6
	North Peninsula	0.1	0.0	0.8	0.49	0.3
	South Peninsula	0.0	0.0	0.0	0.91	0.1
	Chignik	66.8	63.2	70.4	0.00	2.2
	East of WASSIP	31.8	28.2	35.4	0.00	2.2

*Note:* Stock composition estimates may not sum to 100% due to rounding error.

*Note:* H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Table 43.—Dolgoi Island area (post-June), Alaska Peninsula Area, Westward Region, 2007, temporal strata 1–2. Regional reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (7/6–7/31; H=221,451; n=397)					Stratum 2 (8/1–8/26; H=11,916; n=391)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%		
	Norton Sound	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.92	0.0	
	Kuskokwim Bay	1.3	0.0	2.6	0.05	0.8	0.2	0.0	0.9	0.61	0.3
	Bristol Bay	4.3	2.5	6.4	0.00	1.2	1.4	0.4	2.6	0.00	0.7
	North Peninsula	0.2	0.0	1.0	0.43	0.4	1.6	0.5	3.0	0.00	0.8
	South Peninsula	0.1	0.0	0.3	0.84	0.2	1.3	0.5	2.5	0.00	0.7
	Chignik	37.3	33.1	41.4	0.00	2.5	33.6	29.6	37.8	0.00	2.5
	East of WASSIP	57.0	52.7	61.3	0.00	2.6	61.9	57.6	66.2	0.00	2.6

*Note:* Stock composition estimates may not sum to 100% due to rounding error.

*Note:* H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Table 44.—Dolgoi Island area (post-June), Alaska Peninsula Area, Westward Region, 2008, temporal strata 1–2. Regional reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (7/6–7/31; H=29,060; n=384)					Stratum 2 (8/1–8/17; H=26,739; n=390)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%		
	Norton Sound	0.0	0.0	0.2	0.86	0.2	0.0	0.0	0.0	0.92	0.0
	Kuskokwim Bay	0.8	0.0	2.6	0.22	0.9	0.1	0.0	0.4	0.72	0.2
	Bristol Bay	12.1	9.0	15.4	0.00	2.0	2.5	1.1	4.1	0.00	0.9
	North Peninsula	3.0	1.5	5.0	0.00	1.1	5.4	3.2	7.9	0.00	1.4
	South Peninsula	1.6	0.6	2.9	0.00	0.7	3.2	1.5	5.2	0.00	1.1
	Chignik	41.5	37.2	45.9	0.00	2.6	53.2	48.7	57.7	0.00	2.7
	East of WASSIP	41.0	36.6	45.4	0.00	2.7	35.7	31.4	40.1	0.00	2.7

*Note:* Stock composition estimates may not sum to 100% due to rounding error.

*Note:* H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.



Table 45.—Ikatan area (post-June), Alaska Peninsula Area, Westward Region, 2007, temporal stratum 1. Regional reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (7/6–7/31; H=19,992; n=296)				
		Mean	90% CI		P=0	SD
Regional	Subregional		5%	95%		
	Norton Sound	0.0	0.0	0.0	0.91	0.1
	Kuskokwim Bay	1.6	0.1	5.0	0.03	1.6
	Bristol Bay	24.5	19.5	29.5	0.00	3.1
	North Peninsula	9.2	5.2	13.7	0.00	2.6
	South Peninsula	6.6	4.0	9.6	0.00	1.7
	Chignik	14.1	10.7	17.9	0.00	2.2
	East of WASSIP	43.9	38.7	49.1	0.00	3.2

*Note:* Stock composition estimates may not sum to 100% due to rounding error

*Note:* H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Table 46.—Ikatan area (post-June), Alaska Peninsula Area, Westward Region, 2008, temporal stratum 1. Regional reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (7/6–7/31; H=13,842; n=409)				
		Mean	90% CI		P=0	SD
Regional	Subregional		5%	95%		
	Norton Sound	0.0	0.0	0.0	0.90	0.1
	Kuskokwim Bay	0.2	0.0	1.3	0.67	0.5
	Bristol Bay	35.6	31.5	39.8	0.00	2.5
	North Peninsula	6.9	4.5	9.7	0.00	1.6
	South Peninsula	18.8	15.2	22.6	0.00	2.3
	Chignik	15.7	12.7	19.0	0.00	1.9
	East of WASSIP	22.8	19.3	26.6	0.00	2.2

*Note:* Stock composition estimates may not sum to 100% due to rounding error

*Note:* H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Table 47.—Bear River Section, Northern District, Westward Region, 2006, temporal strata 1–3. Regional and subregional (within North Peninsula) reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (6/5–7/8; H=16,020; n=384)					Stratum 2 (7/9–7/17; H=156,374; n=402)					Stratum 3 (7/18–7/31; H=189,933; n=398)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%				5%	95%		
Norton Sound		0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.89	0.2	0.1	0.0	0.3	0.84	0.2
Kuskokwim Bay		0.3	0.0	1.2	0.48	0.5	0.1	0.0	0.4	0.68	0.2	0.0	0.0	0.1	0.78	0.1
Bristol Bay		9.7	6.9	12.7	0.00	1.8	13.9	10.9	17.2	0.00	1.9	17.4	14.0	21.1	0.00	2.2
North Peninsula		88.3	85.1	91.3	0.00	1.9	81.5	77.9	85.0	0.00	2.2	72.1	67.9	76.1	0.00	2.5
South Peninsula		0.0	0.0	0.0	0.89	0.1	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.91	0.1
Chignik		0.0	0.0	0.0	0.84	0.1	0.5	0.0	1.4	0.01	0.4	0.0	0.0	0.0	0.85	0.1
East of WASSIP		1.7	0.8	3.0	0.00	0.7	4.0	2.4	5.8	0.00	1.0	10.4	7.9	13.2	0.00	1.6
North Peninsula	Cinder	0.1	0.0	0.3	0.85	0.4	0.0	0.0	0.1	0.88	0.3	4.3	1.7	7.1	0.01	1.7
	Meshik	7.1	4.1	10.4	0.00	1.9	0.3	0.0	1.5	0.41	0.6	0.0	0.0	0.0	0.89	0.2
	Ilnik	0.1	0.0	0.7	0.83	0.3	0.1	0.0	0.3	0.86	0.3	1.0	0.3	2.0	0.00	0.6
	Sandy	8.4	5.7	11.6	0.00	1.8	4.1	2.1	6.5	0.00	1.4	4.3	2.1	7.0	0.00	1.5
	Bear	60.1	55.3	65.0	0.00	2.9	66.6	62.2	70.8	0.00	2.6	58.6	53.8	63.3	0.00	2.9
	Nelson	12.5	9.6	15.6	0.00	1.8	9.5	7.1	12.1	0.00	1.5	3.9	2.3	5.8	0.00	1.1
	NW Dist.-BH	0.0	0.0	0.0	0.89	0.1	1.0	0.1	2.7	0.00	0.8	0.0	0.0	0.0	0.89	0.1

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Table 48.–Bear River Section, Northern District, Westward Region, 2007, temporal strata 2–3. Regional and subregional (within North Peninsula) reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 2 (7/14–7/19; H=76,652; n=271)					Stratum 3 (7/20–7/31; H=115,464; n=393)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%		
	Norton Sound	0.1	0.0	0.6	0.76	0.3	0.0	0.0	0.0	0.92	0.1
	Kuskokwim Bay	0.4	0.0	1.3	0.05	0.4	0.4	0.0	1.4	0.30	0.5
	Bristol Bay	6.2	3.6	9.2	0.00	1.7	2.2	0.6	4.1	0.00	1.1
	North Peninsula	79.1	74.5	83.5	0.00	2.7	78.9	74.2	83.2	0.00	2.8
	South Peninsula	0.1	0.0	0.7	0.81	0.4	1.3	0.0	4.0	0.47	1.5
	Chignik	1.1	0.2	2.5	0.01	0.8	0.7	0.1	1.6	0.00	0.5
	East of WASSIP	13.1	9.6	16.8	0.00	2.2	16.6	13.5	19.8	0.00	2.0
North Peninsula	Cinder	0.3	0.0	2.7	0.72	1.0	2.7	0.0	5.7	0.16	1.8
	Meshik	0.1	0.0	1.1	0.82	0.5	0.1	0.0	0.2	0.87	0.3
	Ilnik	0.2	0.0	1.2	0.62	0.5	0.0	0.0	0.0	0.92	0.1
	Sandy	6.2	3.4	9.6	0.00	1.9	2.1	0.7	4.0	0.01	1.0
	Bear	51.7	46.1	57.3	0.00	3.4	70.1	65.8	74.2	0.00	2.6
	Nelson	16.9	13.1	21.0	0.00	2.4	3.1	1.6	4.8	0.00	1.0
	NW Dist.-BH	3.6	1.7	5.9	0.00	1.3	0.9	0.2	1.8	0.00	0.5

*Note:* Stock composition estimates may not sum to 100% due to rounding error.

*Note:* H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Table 49.—Three Hills Section, Northern District, Westward Region, 2006, temporal strata 2–3. Regional and subregional (within North Peninsula) reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 2 (7/14–7/17; H=64,963; n=332)					Stratum 3 (7/18–7/28; H=30,463; n=320)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%		
Norton Sound		0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.91	0.1
Kuskokwim Bay		0.8	0.0	2.2	0.25	0.8	0.1	0.0	0.7	0.68	0.3
Bristol Bay		44.8	39.5	50.1	0.00	3.2	40.8	35.6	46.1	0.00	3.2
North Peninsula		51.9	46.7	57.2	0.00	3.2	49.2	43.8	54.5	0.00	3.3
South Peninsula		0.2	0.0	0.9	0.67	0.4	0.1	0.0	0.3	0.87	0.3
Chignik		0.0	0.0	0.1	0.80	0.1	0.0	0.0	0.0	0.83	0.1
East of WASSIP		2.3	1.1	3.9	0.00	0.9	9.9	7.2	12.9	0.00	1.7
North Peninsula	Cinder	0.7	0.0	4.0	0.47	1.5	5.1	2.2	8.6	0.01	2.0
	Meshik	6.3	2.3	10.3	0.00	2.4	0.7	0.0	2.7	0.29	1.0
	Ilnik	4.9	2.3	7.9	0.00	1.7	9.0	4.6	13.5	0.00	2.7
	Sandy	2.3	0.7	4.4	0.00	1.2	2.9	1.2	5.0	0.00	1.2
	Bear	25.9	21.4	30.5	0.00	2.8	30.7	26.0	35.7	0.00	3.0
	Nelson	11.8	8.8	15.1	0.00	1.9	0.4	0.0	1.3	0.00	0.4
	NW Dist.-BH	0.0	0.0	0.0	0.83	0.1	0.3	0.0	1.0	0.04	0.3

*Note:* Stock composition estimates may not sum to 100% due to rounding error.

*Note:* H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses

Table 50.—Ilnik Section southern statistical area, Northern District, Westward Region, 2006, temporal strata 1–3. Regional and subregional (within North Peninsula) reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (6/25–7/4; H=301,660; n=392)					Stratum 2 (7/5–7/17; H=327,913; n=395)					Stratum 3 (7/18–7/31; H=63,937; n=397)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%				5%	95%		
Norton Sound		0.1	0.0	0.0	0.89	0.3	0.0	0.0	0.0	0.89	0.2	0.0	0.0	0.0	0.90	0.1
Kuskokwim Bay		2.6	0.0	5.1	0.07	1.5	0.4	0.0	1.6	0.46	0.6	0.5	0.0	1.6	0.20	0.6
Bristol Bay		52.4	47.5	57.3	0.00	3.0	53.1	48.2	58.0	0.00	3.0	52.3	47.6	57.0	0.00	2.9
North Peninsula		43.1	38.4	47.8	0.00	2.9	42.0	37.2	46.9	0.00	3.0	34.6	30.1	39.2	0.00	2.8
South Peninsula		0.0	0.0	0.0	0.91	0.1	0.1	0.0	0.2	0.87	0.2	0.0	0.0	0.0	0.91	0.1
Chignik		0.1	0.0	0.7	0.66	0.3	0.0	0.0	0.1	0.82	0.1	0.0	0.0	0.0	0.84	0.1
East of WASSIP		1.7	0.7	3.2	0.00	0.8	4.4	2.8	6.3	0.00	1.1	12.6	9.8	15.6	0.00	1.8
North Peninsula	Cinder	3.2	0.0	7.4	0.13	2.5	1.8	0.0	5.1	0.26	1.8	4.2	1.6	7.1	0.01	1.7
	Meshik	2.6	0.6	6.6	0.00	1.9	2.7	0.4	6.4	0.00	1.9	0.2	0.0	1.0	0.84	0.8
	Ilnik	16.6	12.7	20.7	0.00	2.5	4.8	2.2	7.6	0.00	1.6	2.2	0.8	4.4	0.00	1.1
	Sandy	3.1	1.4	5.1	0.00	1.2	5.8	3.6	8.4	0.00	1.5	1.5	0.0	3.2	0.05	1.0
	Bear	14.7	11.4	18.3	0.00	2.1	20.5	16.8	24.5	0.00	2.3	23.3	19.5	27.4	0.00	2.4
	Nelson	2.9	1.5	4.5	0.00	0.9	6.5	4.2	9.0	0.00	1.4	3.3	1.8	5.1	0.00	1.0
	NW Dist.-BH	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.2	0.86	0.2

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Table 51.—Ilnik Section southern statistical area, Northern District, Westward Region, 2007, temporal strata 1–3. Regional and subregional (within North Peninsula) reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (6/20–6/27; H=201,954; n=394)					Stratum 2 (6/28–7/7; H=484,898; n=396)					Stratum 3 (7/10–7/31; H=239,612; n=354)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%				5%	95%		
Norton Sound		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.0
Kuskokwim Bay		0.1	0.0	0.5	0.65	0.2	0.0	0.0	0.0	0.78	0.1	0.7	0.0	2.8	0.45	1.0
Bristol Bay		30.2	26.1	34.4	0.00	2.5	72.9	68.6	77.0	0.00	2.6	41.4	36.6	46.3	0.00	3.0
North Peninsula		69.5	65.2	73.6	0.00	2.5	26.3	22.2	30.6	0.00	2.5	48.3	43.5	53.1	0.00	2.9
South Peninsula		0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1
Chignik		0.0	0.0	0.0	0.84	0.1	0.0	0.0	0.0	0.85	0.0	0.0	0.0	0.0	0.84	0.1
East of WASSIP		0.3	0.0	0.9	0.00	0.3	0.8	0.2	1.7	0.00	0.5	9.6	7.0	12.5	0.00	1.7
North Peninsula	Cinder	7.3	3.6	11.5	0.00	2.4	6.3	3.4	9.6	0.00	1.9	2.2	0.0	4.9	0.06	1.5
	Meshik	1.7	0.0	4.7	0.07	1.5	3.6	0.0	7.2	0.09	2.2	0.1	0.0	0.1	0.88	0.5
	Ilnik	38.0	33.0	43.1	0.00	3.1	2.4	0.9	4.3	0.00	1.1	1.7	0.6	3.3	0.00	0.9
	Sandy	4.3	2.4	6.5	0.00	1.3	0.6	0.0	1.7	0.01	0.6	0.5	0.0	2.5	0.63	0.9
	Bear	14.2	10.9	17.6	0.00	2.0	10.1	7.4	13.1	0.00	1.8	35.6	31.1	40.1	0.00	2.8
	Nelson	4.0	2.3	5.9	0.00	1.1	3.3	1.8	5.1	0.00	1.0	7.2	5.0	9.7	0.00	1.5
	NW Dist.-BH	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.1	1.1	0.3	2.3	0.00	0.6

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Table 52.—Ilnik Section southern statistical area, Northern District, Westward Region, 2008, temporal strata 1–2. Regional and subregional (within North Peninsula) reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (6/30–7/3; H=100,032; n=384)					Stratum 2 (7/4–7/11; H=151,246; n=393)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%		
		0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.1
		3.1	1.3	5.3	0.00	1.3	5.5	2.9	8.1	0.00	1.6
		58.2	53.3	62.9	0.00	2.9	69.1	64.4	73.7	0.00	2.8
		38.3	33.4	43.1	0.00	2.9	25.2	21.1	29.5	0.00	2.6
		0.0	0.0	0.0	0.89	0.1	0.0	0.0	0.0	0.89	0.1
		0.0	0.0	0.0	0.85	0.1	0.0	0.0	0.0	0.84	0.1
		0.5	0.0	2.5	0.44	0.9	0.2	0.0	1.0	0.42	0.4
North Peninsula	Cinder	1.8	0.0	4.4	0.12	1.5	5.0	2.5	7.9	0.00	1.7
	Meshik	14.5	10.5	19.0	0.00	2.6	9.4	6.6	12.6	0.00	1.8
	Ilnik	8.6	5.7	11.9	0.00	1.9	0.6	0.1	1.3	0.00	0.4
	Sandy	1.1	0.1	2.5	0.02	0.8	0.4	0.0	1.8	0.49	0.7
	Bear	7.7	5.1	10.7	0.00	1.7	4.2	2.4	6.3	0.00	1.2
	Nelson	4.4	2.7	6.5	0.00	1.2	5.6	3.7	7.8	0.00	1.3
	NW Dist.-BH	0.1	0.0	0.2	0.88	0.3	0.0	0.0	0.0	0.89	0.1

*Note:* Stock composition estimates may not sum to 100% due to rounding error.

*Note:* H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.



Table 53.—Ilnik Section northern statistical area, Northern District, Westward Region, 2006, temporal strata 1–3. Regional and subregional (within North Peninsula) reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (6/25–6/29; H=83,223; n=392)					Stratum 2 (7/3–7/14; H=336,573; n=392)					Stratum 3 (7/17–7/28; H=115,945; n=393)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%				5%	95%		
Norton Sound		0.0	0.0	0.0	0.90	0.2	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.90	0.1
Kuskokwim Bay		0.1	0.0	0.8	0.68	0.4	1.9	0.0	4.4	0.14	1.4	0.0	0.0	0.3	0.69	0.2
Bristol Bay		48.1	43.3	52.8	0.00	2.9	69.0	64.1	73.9	0.00	3.0	81.4	77.7	84.9	0.00	2.2
North Peninsula		47.8	43.0	52.6	0.00	2.9	27.3	22.8	31.9	0.00	2.8	10.9	8.0	14.0	0.00	1.8
South Peninsula		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.1	0.87	0.2
Chignik		0.0	0.0	0.0	0.84	0.1	0.1	0.0	0.7	0.60	0.3	0.0	0.0	0.0	0.85	0.1
East of WASSIP		4.0	2.4	5.9	0.00	1.1	1.7	0.7	2.9	0.00	0.7	7.6	5.4	10.1	0.00	1.4
North Peninsula	Cinder	10.7	6.0	15.5	0.00	2.9	0.9	0.0	4.2	0.26	1.5	0.0	0.0	0.1	0.88	0.3
	Meshik	2.6	0.7	4.9	0.02	1.4	4.3	0.0	8.9	0.10	2.8	0.1	0.0	0.4	0.67	0.2
	Ilnik	14.1	10.5	18.1	0.00	2.3	5.8	3.1	9.0	0.00	1.8	1.4	0.5	2.7	0.00	0.7
	Sandy	3.7	1.8	5.9	0.00	1.2	2.4	1.0	4.1	0.00	1.0	1.3	0.3	2.7	0.01	0.7
	Bear	15.1	11.7	18.8	0.00	2.2	9.4	6.5	12.6	0.00	1.9	6.2	4.0	8.8	0.00	1.5
	Nelson	1.6	0.6	3.0	0.00	0.7	4.6	2.6	6.8	0.00	1.3	1.5	0.6	2.7	0.00	0.7
	NW Dist.-BH	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.1	0.4	0.0	1.7	0.60	0.6

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Table 54.—Ilnik Section northern statistical area, Northern District, Westward Region, 2007, temporal strata 1–3. Regional and subregional (within North Peninsula) reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (6/20–6/29; H=121,611; n=441)					Stratum 2 (7/2–7/14; H=454,834; n=395)					Stratum 3 (7/16–7/31; H=158,781; n=396)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%				5%	95%		
Norton Sound		0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.91	0.1	0.6	0.0	1.4	0.10	0.5
Kuskokwim Bay		0.1	0.0	0.5	0.61	0.2	2.4	0.0	4.7	0.05	1.3	4.4	2.2	7.0	0.00	1.5
Bristol Bay		44.3	39.9	48.8	0.00	2.7	65.3	60.6	70.0	0.00	2.9	35.5	30.8	40.4	0.00	2.9
North Peninsula		53.9	49.4	58.4	0.00	2.7	29.1	24.8	33.5	0.00	2.7	39.9	35.3	44.5	0.00	2.8
South Peninsula		0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.91	0.1
Chignik		0.0	0.0	0.0	0.84	0.1	0.0	0.0	0.0	0.85	0.1	0.1	0.0	0.5	0.73	0.2
East of WASSIP		1.7	0.6	3.2	0.00	0.8	3.2	1.8	5.0	0.00	1.0	19.6	16.2	23.2	0.00	2.1
North Peninsula	Cinder	9.4	5.6	13.7	0.00	2.5	4.4	1.7	7.5	0.01	1.8	1.4	0.0	3.9	0.20	1.4
	Meshik	10.7	7.1	14.7	0.00	2.3	3.4	1.2	6.4	0.00	1.6	0.0	0.0	0.1	0.74	0.2
	Ilnik	14.6	10.8	18.6	0.00	2.4	2.5	1.0	5.0	0.00	1.3	0.0	0.0	0.1	0.80	0.2
	Sandy	2.8	1.4	4.6	0.00	1.0	2.7	1.2	4.7	0.00	1.1	1.3	0.1	2.8	0.03	0.8
	Bear	14.1	10.9	17.5	0.00	2.0	13.0	10.0	16.3	0.00	1.9	34.3	30.1	38.7	0.00	2.6
	Nelson	2.4	1.1	3.9	0.00	0.9	3.2	1.8	4.9	0.00	1.0	2.7	1.4	4.3	0.00	0.9
	NW Dist.-BH	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.90	0.1

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Table 55.—Ilnik Section northern statistical area, Northern District, Westward Region, 2008, temporal strata 2–3. Regional and subregional (within North Peninsula) reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 2 (7/1–7/4; H=300,554; n=361)					Stratum 3 (7/5–7/11; H=199,551; n=331)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%		
	Norton Sound	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.1
	Kuskokwim Bay	1.4	0.0	3.1	0.13	1.0	0.4	0.0	2.6	0.59	1.0
	Bristol Bay	75.5	71.0	79.8	0.00	2.7	85.7	81.2	89.7	0.00	2.6
	North Peninsula	22.9	18.8	27.1	0.00	2.5	12.9	9.2	16.9	0.00	2.4
	South Peninsula	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1
	Chignik	0.0	0.0	0.0	0.85	0.1	0.0	0.0	0.1	0.82	0.1
	East of WASSIP	0.3	0.0	0.8	0.00	0.3	1.0	0.3	2.0	0.00	0.6
North Peninsula	Cinder	2.9	0.0	6.4	0.20	2.1	0.2	0.0	1.4	0.65	0.5
	Meshik	14.8	11.1	18.9	0.00	2.4	6.6	3.6	10.1	0.00	2.0
	Ilnik	1.5	0.2	4.7	0.00	1.5	0.0	0.0	0.0	0.89	0.1
	Sandy	0.1	0.0	0.6	0.80	0.3	0.0	0.0	0.0	0.92	0.0
	Bear	3.3	1.7	5.3	0.00	1.1	5.3	3.2	7.8	0.00	1.4
	Nelson	0.3	0.0	0.9	0.13	0.3	0.8	0.0	2.1	0.03	0.7
	NW Dist.-BH	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.0

*Note:* Stock composition estimates may not sum to 100% due to rounding error.

*Note:* H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Table 56.—Outer Port Heiden Section, Northern District, Westward Region, 2007, temporal strata 1–3. Regional and subregional (within North Peninsula) reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (6/20–6/27; H=85,576; n=394)					Stratum 2 (7/2–7/12; H=205,219; n=387)					Stratum 3 (7/16–7/30; H=96,991; n=398)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%				5%	95%		
Norton Sound		0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.90	0.2	0.1	0.0	0.7	0.85	0.4
Kuskokwim Bay		0.4	0.0	1.7	0.50	0.6	0.2	0.0	1.2	0.53	0.5	1.4	0.0	6.9	0.18	2.3
Bristol Bay		71.7	67.1	76.2	0.00	2.7	76.1	71.8	80.2	0.00	2.6	65.2	59.6	70.2	0.00	3.2
North Peninsula		26.8	22.5	31.4	0.00	2.7	22.6	18.6	26.8	0.00	2.5	22.9	18.7	27.3	0.00	2.6
South Peninsula		0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.91	0.1	0.2	0.0	1.2	0.77	0.4
Chignik		0.0	0.0	0.2	0.80	0.2	0.0	0.0	0.1	0.82	0.1	0.4	0.0	1.4	0.41	0.5
East of WASSIP		1.1	0.3	2.5	0.00	0.7	1.0	0.3	2.0	0.00	0.5	9.9	6.5	14.0	0.00	2.3
North Peninsula	Cinder	9.1	4.4	14.6	0.00	3.1	3.6	0.7	6.6	0.02	1.8	3.9	1.1	6.7	0.02	1.7
	Meshik	9.8	4.7	15.1	0.00	3.1	8.5	4.9	12.3	0.00	2.2	0.3	0.0	1.4	0.34	0.6
	Ilnik	5.8	3.3	8.5	0.00	1.6	1.7	0.1	3.8	0.03	1.2	0.3	0.0	1.0	0.00	0.4
	Sandy	0.0	0.0	0.2	0.87	0.2	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.91	0.1
	Bear	1.4	0.1	3.2	0.01	0.9	7.0	4.7	9.5	0.00	1.5	18.4	14.8	22.3	0.00	2.3
	Nelson	0.7	0.1	1.7	0.00	0.5	2.0	0.9	3.4	0.00	0.8	0.0	0.0	0.1	0.84	0.1
	NW Dist.-BH	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Table 57.—Outer Port Heiden Section, Northern District, Westward Region, 2008, temporal strata 1–3. Regional and subregional (within North Peninsula) reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (6/30–7/3; H=130,762; n=396)					Stratum 2 (7/7–7/9; H=148,270; n=379)					Stratum 3 (7/14–7/15; H=42,698; n=392)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%				5%	95%		
Norton Sound		0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.91	0.1
Kuskokwim Bay		1.0	0.0	2.6	0.20	0.9	0.1	0.0	0.5	0.71	0.3	0.2	0.0	1.6	0.64	0.6
Bristol Bay		76.1	71.7	80.2	0.00	2.6	83.9	80.0	87.6	0.00	2.3	89.8	86.6	92.6	0.00	1.9
North Peninsula		23.0	19.0	27.1	0.00	2.5	16.0	12.4	19.9	0.00	2.3	9.2	6.5	12.1	0.00	1.7
South Peninsula		0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.0	0.1	0.0	0.3	0.79	0.2
Chignik		0.0	0.0	0.0	0.85	0.0	0.0	0.0	0.0	0.85	0.1	0.0	0.0	0.0	0.84	0.1
East of WASSIP		0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.0	0.8	0.2	1.6	0.00	0.5
North Peninsula	Cinder	3.1	0.0	7.2	0.16	2.3	1.0	0.0	3.5	0.36	1.2	0.2	0.0	1.2	0.80	0.5
	Meshik	19.7	15.1	24.6	0.00	2.9	11.9	8.7	15.4	0.00	2.1	2.9	1.3	5.0	0.00	1.1
	Ilnik	0.0	0.0	0.0	0.89	0.3	0.0	0.0	0.1	0.88	0.3	0.0	0.0	0.1	0.89	0.2
	Sandy	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.89	0.1	0.1	0.0	0.6	0.83	0.3
	Bear	0.1	0.0	0.7	0.64	0.4	3.1	1.5	5.0	0.00	1.1	6.0	3.9	8.3	0.00	1.4
	Nelson	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	NW Dist.-BH	0.0	0.0	0.3	0.79	0.1	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.3	0.81	0.1

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Table 58.—Ugashik District, Bristol Bay Area, Central Region, 2006, temporal strata 1–3. Regional and subregional (within Bristol Bay) reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (6/12–7/2; H=176,394; n=445)					Stratum 2 (7/4–7/7; H=382,796; n=423)					Stratum 3 (7/8–7/11; H=512,849; n=396)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%				5%	95%		
	Norton Sound	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Kuskokwim Bay	1.8	0.0	3.4	0.06	1.0	0.0	0.0	0.0	0.78	0.1	0.0	0.0	0.0	0.79	0.1
	Bristol Bay	93.0	89.9	95.7	0.00	1.8	99.6	98.0	100.0	0.00	0.7	98.6	97.1	100.0	0.00	0.9
	North Peninsula	5.2	2.7	8.3	0.00	1.7	0.4	0.0	1.9	0.37	0.7	1.3	0.0	2.9	0.05	0.9
	South Peninsula	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.0
	Chignik	0.0	0.0	0.0	0.85	0.0	0.0	0.0	0.0	0.84	0.1	0.0	0.0	0.0	0.84	0.1
	East of WASSIP	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
Bristol Bay	Togiak	0.0	0.0	0.2	0.86	0.2	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Igushik	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.89	0.1	0.4	0.0	1.5	0.54	0.6
	Wood	2.5	1.3	4.0	0.00	0.8	0.9	0.2	2.0	0.00	0.6	0.4	0.0	1.3	0.37	0.5
	Nushagak	0.1	0.0	0.9	0.85	0.4	0.1	0.0	0.4	0.82	0.2	0.0	0.0	0.0	0.92	0.0
	Kvichak	3.5	0.7	6.0	0.00	1.6	0.8	0.2	1.6	0.00	0.4	3.7	1.7	6.2	0.00	1.4
	Alagnak	0.1	0.0	0.4	0.80	0.2	0.0	0.0	0.0	0.92	0.1	2.5	1.1	4.2	0.00	0.9
	Naknek	3.8	2.2	5.7	0.00	1.1	1.4	0.0	3.0	0.10	0.9	4.3	2.4	6.5	0.00	1.3
	Egegik	18.2	11.3	26.4	0.00	4.6	5.1	2.0	9.4	0.00	2.4	14.0	8.8	20.2	0.00	3.5
	Ugashik	64.8	56.2	72.6	0.00	5.0	91.4	86.7	95.1	0.00	2.6	73.4	66.6	79.4	0.00	3.9

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Table 59.—Ugashik District, Bristol Bay Area, Central Region, 2006, temporal strata 4–5. Regional and subregional (within Bristol Bay) reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 4 (7/12–7/16; H=537,147; n=386)					Stratum 5 (7/17–8/31; H=820,411; n=396)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%		
	Norton Sound	0.0	0.0	0.3	0.86	0.2	0.0	0.0	0.0	0.92	0.0
	Kuskokwim Bay	0.3	0.0	1.2	0.46	0.4	0.7	0.0	1.8	0.04	0.6
	Bristol Bay	98.9	97.0	100.0	0.00	1.0	98.5	96.8	99.8	0.00	0.9
	North Peninsula	0.8	0.0	2.8	0.20	1.0	0.9	0.0	2.2	0.12	0.7
	South Peninsula	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Chignik	0.0	0.0	0.0	0.85	0.1	0.0	0.0	0.0	0.85	0.0
	East of WASSIP	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
Bristol Bay	Togiak	0.1	0.0	0.6	0.55	0.2	0.0	0.0	0.0	0.90	0.1
	Igushik	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.90	0.1
	Wood	0.0	0.0	0.0	0.92	0.0	1.7	0.5	3.4	0.00	0.9
	Nushagak	0.0	0.0	0.0	0.92	0.0	0.3	0.0	1.6	0.55	0.6
	Kvichak	1.7	0.7	3.2	0.00	0.8	0.5	0.0	1.4	0.07	0.5
	Alagnak	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.90	0.1
	Naknek	0.7	0.0	2.4	0.34	0.9	0.0	0.0	0.2	0.80	0.2
	Egegik	8.1	3.9	13.9	0.00	3.1	2.0	0.0	8.5	0.15	2.9
	Ugashik	88.2	82.3	92.9	0.00	3.3	93.9	87.1	97.5	0.00	3.2

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Table 60.—Ugashik District, Bristol Bay Area, Central Region, 2007, temporal strata 1–3. Regional and subregional (within Bristol Bay) reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (6/12–6/25; H=55,428; n=396)					Stratum 2 (6/29–7/1; H=288,631; n=374)					Stratum 3 (7/2–7/7; H=1,274,764; n=453)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%				5%	95%		
	Norton Sound	0.0	0.0	0.2	0.87	0.2	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Kuskokwim Bay	0.0	0.0	0.2	0.72	0.2	0.0	0.0	0.0	0.78	0.1	0.0	0.0	0.0	0.79	0.0
	Bristol Bay	83.5	79.6	87.2	0.00	2.3	99.9	99.1	100.0	0.00	0.4	99.9	99.6	100.0	0.00	0.2
	North Peninsula	16.1	12.5	20.0	0.00	2.3	0.1	0.0	0.9	0.50	0.4	0.1	0.0	0.3	0.53	0.2
	South Peninsula	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Chignik	0.0	0.0	0.0	0.85	0.1	0.0	0.0	0.0	0.85	0.0	0.0	0.0	0.0	0.85	0.0
	East of WASSIP	0.3	0.0	0.8	0.05	0.3	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
Bristol Bay	Togiak	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Igushik	1.3	0.0	3.0	0.18	1.0	0.1	0.0	0.8	0.81	0.3	0.0	0.0	0.2	0.84	0.1
	Wood	1.5	0.3	3.3	0.02	0.9	0.8	0.0	1.8	0.10	0.6	0.1	0.0	0.6	0.44	0.2
	Nushagak	0.1	0.0	0.5	0.83	0.2	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0
	Kvichak	1.5	0.3	3.1	0.00	0.9	3.0	0.4	6.5	0.00	2.1	2.2	0.2	4.7	0.00	1.5
	Alagnak	0.0	0.0	0.0	0.92	0.0	0.2	0.0	1.3	0.67	0.5	0.2	0.0	0.7	0.41	0.3
	Naknek	1.0	0.0	2.4	0.07	0.7	0.7	0.0	3.9	0.63	1.4	1.2	0.1	3.4	0.03	1.1
	Egegik	21.6	11.0	32.4	0.00	6.5	13.3	7.3	21.5	0.00	4.4	16.0	8.1	25.4	0.00	5.3
	Ugashik	56.6	45.4	67.6	0.00	6.7	81.7	73.3	88.4	0.00	4.6	80.2	70.7	88.3	0.00	5.4

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.



Table 61.—Ugashik District, Bristol Bay Area, Central Region, 2007, temporal strata 4–5. Regional and subregional (within Bristol Bay) reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 4 (7/8–7/11; H=1,162,109; n=387)					Stratum 5 (7/12–8/17; H=2,245,683; n=441)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%		
	Norton Sound	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0
	Kuskokwim Bay	0.4	0.0	1.5	0.38	0.5	0.0	0.0	0.0	0.78	0.1
	Bristol Bay	98.6	96.8	99.9	0.00	1.0	99.7	98.9	100.0	0.00	0.5
	North Peninsula	1.0	0.0	2.5	0.03	0.8	0.2	0.0	1.1	0.35	0.4
	South Peninsula	0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.92	0.1
	Chignik	0.0	0.0	0.0	0.85	0.0	0.0	0.0	0.0	0.85	0.0
	East of WASSIP	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
Bristol Bay	Togiak	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0
	Igushik	0.4	0.0	1.6	0.47	0.6	0.0	0.0	0.3	0.83	0.1
	Wood	0.0	0.0	0.0	0.92	0.1	0.1	0.0	0.6	0.66	0.2
	Nushagak	0.0	0.0	0.0	0.89	0.1	0.0	0.0	0.0	0.92	0.0
	Kvichak	0.9	0.2	2.3	0.00	0.7	2.7	0.7	4.8	0.00	1.2
	Alagnak	0.1	0.0	0.5	0.77	0.2	1.8	0.7	3.2	0.00	0.8
	Naknek	0.3	0.0	1.0	0.15	0.4	3.2	1.8	4.9	0.00	1.0
	Egegik	12.5	6.0	22.4	0.00	5.1	7.3	0.0	30.5	0.34	9.7
	Ugashik	84.4	74.4	91.2	0.00	5.2	84.6	61.6	93.8	0.00	9.8

*Note:* Stock composition estimates may not sum to 100% due to rounding error.

*Note:* H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Table 62.—Ugashik District, Bristol Bay Area, Central Region, 2008, temporal strata 1–3. Regional and subregional (within Bristol Bay) reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (6/16–6/29; H=160,422; n=394)					Stratum 2 (7/2–7/3; H=364,550; n=285)					Stratum 3 (7/4–7/10; H=1,265,549; n=402)						
		Mean	90% CI			$P=0$	SD	Mean	90% CI			$P=0$	SD	Mean	90% CI			$P=0$
Regional	Subregional																	
Norton Sound		0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.89	0.2	0.0	0.0	0.0	0.92	0.0	0.0	0.0
Kuskokwim Bay		0.0	0.0	0.1	0.76	0.2	0.9	0.0	2.8	0.31	1.0	1.0	0.0	2.4	0.12	0.8		
Bristol Bay		98.2	96.6	99.5	0.00	0.9	98.9	96.8	100.0	0.00	1.1	98.8	97.2	100.0	0.00	0.8		
North Peninsula		1.7	0.5	3.3	0.00	0.9	0.2	0.0	1.1	0.40	0.4	0.2	0.0	0.9	0.28	0.3		
South Peninsula		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.0		
Chignik		0.0	0.0	0.0	0.85	0.0	0.0	0.0	0.0	0.85	0.1	0.0	0.0	0.0	0.85	0.0		
East of WASSIP		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1		
Bristol Bay	Togiak	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.1	0.0	0.4	0.84	0.2		
	Igushik	0.5	0.0	2.7	0.63	1.0	0.0	0.0	0.0	0.89	0.2	0.0	0.0	0.0	0.89	0.1		
	Wood	1.8	0.0	3.8	0.20	1.3	0.5	0.0	1.6	0.21	0.6	0.0	0.0	0.0	0.91	0.1		
	Nushagak	0.0	0.0	0.0	0.89	0.2	0.4	0.0	2.1	0.63	0.7	0.0	0.0	0.2	0.85	0.2		
	Kvichak	5.9	3.6	8.7	0.00	1.6	0.8	0.0	2.9	0.00	1.0	2.5	0.6	4.8	0.00	1.3		
	Alagnak	0.7	0.0	1.6	0.11	0.5	1.1	0.2	2.5	0.00	0.7	2.4	1.2	3.8	0.00	0.8		
	Naknek	4.1	2.3	6.3	0.00	1.2	0.1	0.0	0.9	0.83	0.5	2.0	0.6	3.7	0.00	1.0		
	Egegik	25.5	18.4	33.9	0.00	4.7	14.1	8.9	20.8	0.00	3.7	16.4	9.9	25.3	0.00	4.7		
	Ugashik	59.6	51.1	67.1	0.00	4.9	81.8	74.8	87.5	0.00	3.9	75.4	66.4	82.3	0.00	4.9		

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Table 63.—Ugashik District, Bristol Bay Area, Central Region, 2008, temporal strata 4–5. Regional and subregional (within Bristol Bay) reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 4 (7/11–7/13; H=277,143; n=386)					Stratum 5 (7/14–8/31; H=266,358; n=384)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%		
	Norton Sound	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Kuskokwim Bay	0.1	0.0	0.8	0.61	0.3	0.1	0.0	0.6	0.62	0.2
	Bristol Bay	99.5	98.0	100.0	0.00	0.7	99.9	99.3	100.0	0.00	0.3
	North Peninsula	0.4	0.0	1.8	0.34	0.6	0.1	0.0	0.3	0.53	0.2
	South Peninsula	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Chignik	0.0	0.0	0.0	0.85	0.0	0.0	0.0	0.0	0.85	0.0
	East of WASSIP	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.0
Bristol Bay	Togiak	0.0	0.0	0.1	0.88	0.1	0.1	0.0	0.6	0.46	0.2
	Igushik	0.0	0.0	0.1	0.88	0.2	0.3	0.0	1.1	0.26	0.4
	Wood	0.2	0.0	1.4	0.79	0.5	0.1	0.0	0.6	0.71	0.2
	Nushagak	1.5	0.0	3.1	0.09	0.9	0.0	0.0	0.0	0.91	0.1
	Kvichak	0.2	0.0	1.9	0.80	0.7	0.1	0.0	0.5	0.77	0.4
	Alagnak	0.3	0.0	1.2	0.39	0.4	0.0	0.0	0.0	0.86	0.1
	Naknek	2.9	1.4	4.8	0.00	1.0	0.4	0.0	1.5	0.25	0.5
	Egegik	14.0	5.7	22.3	0.00	4.9	8.7	3.4	15.9	0.00	3.9
	Ugashik	80.4	71.9	88.9	0.00	5.1	90.1	82.8	95.5	0.00	4.0

*Note:* Stock composition estimates may not sum to 100% due to rounding error.

*Note:* H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Table 64.–Egegik District, Bristol Bay Area, Central Region, 2006, temporal strata 1–3. Regional and subregional (within Bristol Bay) reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (6/12–7/1; H=1,419,201; n=485) <sup>a</sup>					Stratum 2 (7/2–7/6; H=1,781,368; n=425) <sup>a</sup>					Stratum 3 (7/7–7/12; H=2,146,260; n=391) <sup>b</sup>				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%				5%	95%		
	Norton Sound	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Kuskokwim Bay	0.7	0.0	1.9	0.21	0.6	0.1	0.0	0.5	0.59	0.2	0.0	0.0	0.0	0.79	0.1
	Bristol Bay	99.3	98.1	100.0	0.00	0.6	99.9	99.4	100.0	0.00	0.2	100.0	99.7	100.0	0.00	0.1
	North Peninsula	0.0	0.0	0.3	0.53	0.1	0.0	0.0	0.1	0.57	0.1	0.0	0.0	0.2	0.55	0.1
	South Peninsula	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Chignik	0.0	0.0	0.0	0.85	0.0	0.0	0.0	0.0	0.85	0.0	0.0	0.0	0.0	0.85	0.0
	East of WASSIP	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
Bristol Bay	Togiak	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.2	0.85	0.1	0.0	0.0	0.0	0.92	0.0
	Igushik	0.0	0.0	0.0	0.91	0.1	0.6	0.0	2.2	0.50	0.8	0.0	0.0	0.0	0.91	0.1
	Wood	0.3	0.0	1.3	0.49	0.5	0.7	0.0	2.1	0.35	0.7	0.0	0.0	0.0	0.90	0.1
	Nushagak	0.3	0.0	1.3	0.45	0.5	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0
	Kvichak	0.7	0.1	1.8	0.00	0.5	0.3	0.0	0.8	0.00	0.3	1.5	0.0	3.9	0.25	1.3
	Alagnak	0.0	0.0	0.0	0.92	0.0	0.2	0.0	0.9	0.29	0.3	1.0	0.3	2.0	0.00	0.5
	Naknek	1.8	0.0	3.8	0.06	1.1	0.1	0.0	0.8	0.76	0.3	3.0	1.3	5.1	0.00	1.2
	Egegik	94.7	89.6	97.6	0.00	2.5	97.9	96.2	99.1	0.00	1.0	84.5	74.5	95.3	0.00	6.6
	Ugashik	1.4	0.0	6.4	0.24	2.2	0.1	0.0	0.1	0.88	0.5	9.9	0.0	20.0	0.19	6.7

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

<sup>a</sup> Egegik River SHA only.

<sup>b</sup> 200 of 400 samples selected for analysis Egegik River SHA only.

Table 65.–Egegik District, Bristol Bay Area, Central Region, 2006, temporal strata 4–5. Regional and subregional (within Bristol Bay) reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 4 (7/13–7/15; H=1,043,036; n=398)					Stratum 5 (7/16–8/31; H=1,018,368; n=609)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%		
	Norton Sound	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.1
	Kuskokwim Bay	0.0	0.0	0.0	0.78	0.1	0.0	0.0	0.1	0.76	0.1
	Bristol Bay	99.9	99.5	100.0	0.00	0.2	99.9	99.3	100.0	0.00	0.3
	North Peninsula	0.0	0.0	0.2	0.55	0.1	0.1	0.0	0.7	0.50	0.3
	South Peninsula	0.0	0.0	0.2	0.84	0.1	0.0	0.0	0.0	0.93	0.0
	Chignik	0.0	0.0	0.0	0.85	0.0	0.0	0.0	0.0	0.86	0.0
	East of WASSIP	0.0	0.0	0.1	0.86	0.1	0.0	0.0	0.0	0.92	0.0
Bristol Bay	Togiak	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Igushik	0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.91	0.0
	Wood	0.0	0.0	0.0	0.92	0.0	0.1	0.0	0.5	0.57	0.2
	Nushagak	0.1	0.0	0.3	0.80	0.2	0.0	0.0	0.0	0.89	0.1
	Kvichak	1.8	0.3	4.4	0.00	1.3	9.3	6.9	11.9	0.00	1.5
	Alagnak	1.1	0.4	2.2	0.00	0.6	3.7	2.4	5.2	0.00	0.9
	Naknek	6.6	3.6	9.7	0.00	1.8	6.8	4.7	9.0	0.00	1.3
	Egegik	78.7	71.9	85.1	0.00	4.0	66.6	60.4	72.7	0.00	3.8
	Ugashik	11.7	5.8	18.1	0.00	3.8	13.5	8.0	19.3	0.00	3.5

*Note:* Stock composition estimates may not sum to 100% due to rounding error.

*Note:* H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Table 66.– Egegik District, Bristol Bay Area, Central Region, 2007, temporal strata 1–3. Regional and subregional (within Bristol Bay) reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (6/12–6/27; H=475,947; n=323)					Stratum 2 (6/28–7/3; H=1,237,701; n=398) <sup>a</sup>					Stratum 3 (7/4–7/8; H=2,115,321; n=399) <sup>a</sup>				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%				5%	95%		
	Norton Sound	0.0	0.0	0.0	0.90	0.2	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Kuskokwim Bay	0.3	0.0	2.2	0.63	0.8	0.0	0.0	0.1	0.75	0.1	0.5	0.0	1.7	0.34	0.6
	Bristol Bay	99.6	97.7	100.0	0.00	0.8	99.9	99.6	100.0	0.00	0.2	99.4	98.2	100.0	0.00	0.7
	North Peninsula	0.0	0.0	0.3	0.53	0.2	0.0	0.0	0.2	0.55	0.1	0.1	0.0	0.3	0.53	0.2
	South Peninsula	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Chignik	0.0	0.0	0.0	0.85	0.1	0.0	0.0	0.0	0.85	0.1	0.0	0.0	0.0	0.85	0.0
	East of WASSIP	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
Bristol Bay	Togiak	0.9	0.0	2.5	0.10	0.8	0.0	0.0	0.0	0.92	0.1	0.2	0.0	0.8	0.13	0.3
	Igushik	1.6	0.0	5.2	0.45	1.9	0.0	0.0	0.3	0.80	0.1	0.0	0.0	0.0	0.92	0.0
	Wood	5.5	2.6	8.8	0.00	1.9	0.2	0.0	0.8	0.21	0.3	0.0	0.0	0.0	0.92	0.0
	Nushagak	1.0	0.0	3.5	0.34	1.2	0.0	0.0	0.0	0.91	0.1	0.3	0.0	1.3	0.63	0.5
	Kvichak	5.6	2.7	9.2	0.00	2.0	8.2	5.5	11.2	0.00	1.7	1.3	0.3	3.4	0.00	1.0
	Alagnak	1.9	0.7	3.6	0.00	0.9	1.4	0.5	2.6	0.00	0.7	1.5	0.5	2.8	0.00	0.7
	Naknek	6.1	3.5	9.2	0.00	1.7	2.0	0.7	3.7	0.00	0.9	6.1	3.0	9.5	0.00	2.0
	Egegik	76.5	71.3	81.2	0.00	3.0	79.3	72.0	86.3	0.00	4.3	89.2	84.7	92.8	0.00	2.5
	Ugashik	0.5	0.0	3.1	0.44	1.3	8.8	2.3	15.7	0.02	4.0	0.9	0.0	4.3	0.33	1.5

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

<sup>a</sup> Egegik River SHA only.

Table 67.—Egegik District, Bristol Bay Area, Central Region, 2007, temporal strata 4–5. Regional and subregional (within Bristol Bay) reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 4 (7/9–7/14; H=1,965,468; n=399)					Stratum 5 (7/15–8/31; H=701,471; n=355)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%		
Norton Sound		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
Kuskokwim Bay		0.4	0.0	1.4	0.39	0.5	0.1	0.0	0.6	0.71	0.3
Bristol Bay		99.5	98.4	100.0	0.00	0.6	99.8	99.1	100.0	0.00	0.4
North Peninsula		0.1	0.0	0.5	0.49	0.2	0.1	0.0	0.4	0.51	0.2
South Peninsula		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
Chignik		0.0	0.0	0.0	0.84	0.1	0.0	0.0	0.0	0.85	0.0
East of WASSIP		0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.0
Bristol Bay	Togiak	0.0	0.0	0.2	0.86	0.1	0.3	0.0	0.8	0.07	0.3
	Igushik	0.0	0.0	0.2	0.84	0.2	1.3	0.4	2.5	0.00	0.7
	Wood	1.0	0.2	2.0	0.00	0.6	0.0	0.0	0.0	0.90	0.1
	Nushagak	0.1	0.0	0.4	0.84	0.2	0.0	0.0	0.0	0.92	0.0
	Kvichak	16.3	12.3	20.6	0.00	2.5	5.8	3.3	8.7	0.00	1.7
	Alagnak	8.7	6.3	11.4	0.00	1.6	2.1	1.0	3.6	0.00	0.8
	Naknek	11.5	8.1	15.3	0.00	2.2	2.7	0.8	5.4	0.00	1.5
	Egegik	59.3	52.0	65.7	0.00	4.2	83.1	75.1	89.7	0.00	4.6
	Ugashik	2.6	0.0	9.0	0.49	3.3	4.5	0.0	12.4	0.31	4.5

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Table 68.—Egegik District, Bristol Bay Area, Central Region, 2008, temporal strata 1–3. Regional and subregional (within Bristol Bay) reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (6/9–6/26; H=600,533; n=395)					Stratum 2 (6/27–6/29; H=1,092,595; n=397)					Stratum 3 (6/30–7/5; H=3,178,947; n=397)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%				5%	95%		
Norton Sound		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
Kuskokwim Bay		0.0	0.0	0.0	0.78	0.1	0.0	0.0	0.2	0.73	0.2	0.0	0.0	0.1	0.75	0.1
Bristol Bay		99.9	99.7	100.0	0.00	0.2	99.9	99.4	100.0	0.00	0.3	99.9	99.6	100.0	0.00	0.2
North Peninsula		0.0	0.0	0.2	0.54	0.1	0.1	0.0	0.3	0.54	0.2	0.0	0.0	0.2	0.54	0.1
South Peninsula		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
Chignik		0.0	0.0	0.0	0.85	0.0	0.0	0.0	0.0	0.84	0.1	0.0	0.0	0.0	0.85	0.1
East of WASSIP		0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
Bristol Bay	Togiak	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.89	0.1	0.0	0.0	0.0	0.91	0.1
	Igushik	0.0	0.0	0.0	0.89	0.1	1.3	0.0	2.9	0.11	0.9	0.0	0.0	0.0	0.89	0.1
	Wood	1.0	0.3	2.0	0.00	0.5	1.7	0.6	3.1	0.00	0.8	0.6	0.0	1.8	0.33	0.6
	Nushagak	0.0	0.0	0.0	0.92	0.0	0.4	0.0	2.3	0.70	0.8	0.3	0.0	1.5	0.58	0.5
	Kvichak	4.4	2.5	6.8	0.00	1.3	16.7	12.8	20.9	0.00	2.5	8.4	5.5	11.7	0.00	1.9
	Alagnak	0.7	0.1	1.6	0.02	0.5	4.5	2.6	6.7	0.00	1.3	2.6	1.2	4.3	0.00	1.0
	Naknek	4.3	2.4	6.5	0.00	1.3	15.4	11.8	19.3	0.00	2.3	10.7	7.8	13.9	0.00	1.9
	Egegik	85.7	79.5	91.2	0.00	3.6	59.1	53.5	64.3	0.00	3.3	70.6	63.9	77.9	0.00	4.2
	Ugashik	3.9	0.0	9.5	0.13	3.1	0.8	0.0	4.8	0.54	1.7	6.7	0.0	12.6	0.12	3.8

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.



Table 69.—Egegik District, Bristol Bay Area, Central Region, 2008, temporal strata 4–5. Regional and subregional (within Bristol Bay) reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 4 (7/6–7/8; H=1,233,792; n=397)					Stratum 5 (7/9–8/31; H=1,298,018; n=574)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%		
	Norton Sound	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.1	0.87	0.1
	Kuskokwim Bay	0.3	0.0	1.3	0.45	0.5	0.8	0.0	2.1	0.25	0.7
	Bristol Bay	99.7	98.7	100.0	0.00	0.5	99.0	97.7	100.0	0.00	0.8
	North Peninsula	0.0	0.0	0.3	0.53	0.2	0.1	0.0	0.7	0.45	0.3
	South Peninsula	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1
	Chignik	0.0	0.0	0.0	0.85	0.0	0.0	0.0	0.0	0.86	0.0
	East of WASSIP	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.88	0.1
Bristol Bay	Togiak	0.0	0.0	0.1	0.88	0.2	0.4	0.0	1.4	0.49	0.5
	Igushik	0.0	0.0	0.1	0.87	0.2	1.4	0.0	2.7	0.12	0.8
	Wood	0.0	0.0	0.0	0.90	0.1	0.3	0.0	1.8	0.69	0.6
	Nushagak	0.8	0.0	2.0	0.19	0.7	0.0	0.0	0.0	0.92	0.1
	Kvichak	11.1	7.8	14.8	0.00	2.1	5.6	3.3	8.3	0.00	1.5
	Alagnak	3.7	2.1	5.5	0.00	1.0	3.4	2.1	4.8	0.00	0.8
	Naknek	6.6	3.7	10.0	0.00	1.9	8.8	6.5	11.3	0.00	1.5
	Egegik	73.5	66.1	80.2	0.00	4.4	79.1	75.3	82.6	0.00	2.2
	Ugashik	4.0	0.0	10.3	0.19	3.6	0.2	0.0	1.4	0.66	0.7

*Note:* Stock composition estimates may not sum to 100% due to rounding error.

*Note:* H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Table 70.—Naknek-Kvichak District, Bristol Bay Area, Central Region, 2006, temporal strata 1–3. Regional and subregional (within Bristol Bay) reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (6/19–7/9; H=2,209,098; n=690) <sup>a</sup>					Stratum 2 (7/10–7/10; H=235,526; n=239) <sup>b</sup>					Stratum 3 (7/11–7/13; H=2,035,734; n=539)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%				5%	95%		
Norton Sound		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.90	0.1
Kuskokwim Bay		0.1	0.0	0.4	0.58	0.2	0.0	0.0	0.2	0.75	0.2	0.0	0.0	0.1	0.77	0.1
Bristol Bay		99.9	99.6	100.0	0.00	0.2	99.9	99.4	100.0	0.00	0.3	99.7	98.9	100.0	0.00	0.4
North Peninsula		0.0	0.0	0.1	0.58	0.1	0.1	0.0	0.3	0.53	0.2	0.3	0.0	1.0	0.26	0.3
South Peninsula		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1
Chignik		0.0	0.0	0.0	0.86	0.0	0.0	0.0	0.0	0.84	0.1	0.0	0.0	0.0	0.84	0.1
East of WASSIP		0.0	0.0	0.0	0.93	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
Bristol Bay	Togiak	0.0	0.0	0.0	0.92	0.0	0.3	0.0	1.1	0.36	0.4	0.0	0.0	0.0	0.92	0.0
	Igushik	0.0	0.0	0.0	0.89	0.1	0.0	0.0	0.0	0.91	0.1	0.2	0.0	1.0	0.55	0.4
	Wood	0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.92	0.1	0.2	0.0	0.7	0.42	0.2
	Nushagak	0.2	0.0	0.6	0.39	0.2	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.90	0.1
	Kvichak	4.9	3.3	6.7	0.00	1.0	33.5	27.7	39.4	0.00	3.6	49.3	45.2	53.3	0.00	2.5
	Alagnak	3.7	2.5	5.2	0.00	0.8	15.8	11.8	20.2	0.00	2.6	24.9	21.7	28.4	0.00	2.0
	Naknek	91.0	88.7	93.1	0.00	1.3	47.4	41.1	53.7	0.00	3.8	11.6	8.9	14.6	0.00	1.7
	Egegik	0.1	0.0	0.7	0.74	0.3	2.9	0.0	6.4	0.05	2.0	11.4	8.4	14.6	0.00	1.9
	Ugashik	0.0	0.0	0.1	0.87	0.1	0.1	0.0	0.1	0.89	0.4	2.1	0.0	4.7	0.07	1.4

*Note:* Stock composition estimates may not sum to 100% due to rounding error.

*Note:* H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

<sup>a</sup> Naknek River SHA only.

<sup>b</sup> Naknek-Kvichak District set gillnet only.

Table 71.—Naknek-Kvichak District, Bristol Bay Area, Central Region, 2006, temporal strata 4–6. Regional and subregional (within Bristol Bay) reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 4 (7/14–7/17; H=1,335,678; n=425)					Stratum 5 (7/18–8/25; H=1,089,931; n=351)					Stratum 6 (7/7–7/12; H=45,975; n=164) <sup>a</sup>				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%				5%	95%		
Norton Sound		0.0	0.0	0.1	0.88	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1
Kuskokwim Bay		0.1	0.0	0.3	0.70	0.2	0.0	0.0	0.1	0.77	0.1	0.1	0.0	0.3	0.74	0.4
Bristol Bay		99.9	99.3	100.0	0.00	0.3	99.4	98.4	100.0	0.00	0.5	99.8	99.2	100.0	0.00	0.5
North Peninsula		0.0	0.0	0.3	0.53	0.1	0.6	0.0	1.6	0.07	0.5	0.1	0.0	0.3	0.53	0.2
South Peninsula		0.0	0.0	0.0	0.89	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.1
Chignik		0.0	0.0	0.0	0.85	0.0	0.0	0.0	0.0	0.84	0.1	0.0	0.0	0.0	0.84	0.1
East of WASSIP		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.92	0.1
Bristol Bay	Togiak	0.0	0.0	0.1	0.88	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1
	Igushik	0.2	0.0	1.4	0.74	0.5	0.0	0.0	0.1	0.88	0.1	0.0	0.0	0.0	0.90	0.3
	Wood	2.6	1.2	4.1	0.00	0.9	0.2	0.0	0.8	0.34	0.3	14.9	10.2	20.1	0.00	3.0
	Nushagak	0.4	0.0	1.2	0.21	0.4	0.3	0.0	0.9	0.20	0.3	2.9	0.5	6.8	0.02	2.0
	Kvichak	39.7	35.0	44.3	0.00	2.8	46.4	41.4	51.4	0.00	3.0	20.1	14.5	26.2	0.00	3.6
	Alagnak	26.5	22.7	30.4	0.00	2.3	36.2	31.6	40.8	0.00	2.8	54.3	47.4	61.1	0.00	4.1
	Naknek	27.9	23.6	32.5	0.00	2.7	16.3	12.5	20.5	0.00	2.4	0.1	0.0	0.0	0.89	0.4
	Egegik	2.5	1.0	4.4	0.00	1.1	0.0	0.0	0.1	0.82	0.1	7.3	3.5	11.7	0.00	2.5
	Ugashik	0.2	0.0	1.3	0.70	0.5	0.0	0.0	0.2	0.84	0.2	0.3	0.0	2.1	0.82	0.9

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

<sup>a</sup> Alagnak River SHA only.

Table 72.—Naknek-Kvichak District, Bristol Bay Area, Central Region, 2006, temporal stratum 7. Regional and subregional (within Bristol Bay) reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 7 (7/10–8/4; H=198,598; n=190) <sup>a</sup>				
		Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%		
	Norton Sound	0.0	0.0	0.0	0.91	0.1
	Kuskokwim Bay	0.0	0.0	0.1	0.77	0.1
	Bristol Bay	99.7	98.4	100.0	0.00	0.6
	North Peninsula	0.2	0.0	1.3	0.46	0.6
	South Peninsula	0.0	0.0	0.0	0.89	0.2
	Chignik	0.0	0.0	0.1	0.81	0.2
	East of WASSIP	0.0	0.0	0.0	0.92	0.1
Bristol Bay	Togiak	0.0	0.0	0.0	0.92	0.1
	Igushik	0.2	0.0	1.4	0.80	0.6
	Wood	0.3	0.0	1.6	0.63	0.6
	Nushagak	0.1	0.0	0.1	0.89	0.3
	Kvichak	41.1	34.5	47.8	0.00	4.1
	Alagnak	28.4	22.5	34.5	0.00	3.6
	Naknek	21.4	15.4	27.7	0.00	3.7
	Egegik	7.8	4.0	12.2	0.00	2.5
	Ugashik	0.5	0.0	2.7	0.56	1.0

*Note:* Stock composition estimates may not sum to 100% due to rounding error.

*Note:* H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

<sup>a</sup> Kvichak Section set gillnet only.

Table 73.—Naknek-Kvichak District, Bristol Bay Area, Central Region, 2007, temporal strata 1–3. Regional and subregional (within Bristol Bay) reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (6/12–6/27; H=351,509; n=295) <sup>a</sup>					Stratum 2 (6/28–7/8; H=3,922,415; n=397) <sup>b</sup>					Stratum 3 (7/9–7/12; H=2,428,294; n=403)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%				5%	95%		
Norton Sound		0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.92	0.0
Kuskokwim Bay		0.2	0.0	1.1	0.69	0.6	0.0	0.0	0.1	0.77	0.1	1.0	0.0	3.5	0.44	1.3
Bristol Bay		99.8	98.6	100.0	0.00	0.6	99.9	99.6	100.0	0.00	0.2	99.0	96.5	100.0	0.00	1.3
North Peninsula		0.1	0.0	0.3	0.53	0.2	0.0	0.0	0.1	0.56	0.1	0.0	0.0	0.2	0.55	0.1
South Peninsula		0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.1	0.87	0.1
Chignik		0.0	0.0	0.1	0.80	0.1	0.0	0.0	0.0	0.86	0.0	0.0	0.0	0.0	0.85	0.0
East of WASSIP		0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
Bristol Bay	Togiak	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.89	0.2
	Igushik	1.6	0.0	5.3	0.45	2.0	0.0	0.0	0.2	0.86	0.2	0.1	0.0	0.5	0.81	0.3
	Wood	7.8	4.3	11.5	0.00	2.2	0.0	0.0	0.0	0.91	0.1	0.7	0.0	1.9	0.03	0.6
	Nushagak	3.1	0.6	6.6	0.01	1.9	0.0	0.0	0.0	0.91	0.1	2.3	0.3	4.6	0.01	1.3
	Kvichak	24.5	19.5	29.7	0.00	3.1	11.7	8.8	14.9	0.00	1.9	35.1	30.3	39.9	0.00	2.9
	Alagnak	8.0	5.0	11.5	0.00	2.0	10.0	7.3	13.0	0.00	1.7	24.5	20.6	28.5	0.00	2.4
	Naknek	48.1	42.2	54.1	0.00	3.6	76.4	72.0	80.6	0.00	2.6	34.3	29.6	39.2	0.00	2.9
	Egegik	5.4	2.5	8.8	0.00	1.9	1.8	0.0	3.9	0.11	1.2	1.7	0.0	3.6	0.05	1.1
	Ugashik	1.2	0.0	3.9	0.36	1.4	0.0	0.0	0.0	0.91	0.1	0.3	0.0	2.2	0.76	0.8

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

<sup>a</sup> 240 of 300 samples selected from Naknek-Kvichak District set gillnet; 60 samples Naknek Section.

<sup>b</sup> Both Naknek River SHA and Alagnak River SHA.

Table 74.—Naknek-Kvichak District, Bristol Bay Area, Central Region, 2007, temporal strata 4–5. Regional and subregional (within Bristol Bay) reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 4 (7/13–7/16; H=1,732,003; n=399)					Stratum 5 (7/17–8/21; H=588,290; n=260)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%		
Norton Sound		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1
Kuskokwim Bay		0.0	0.0	0.1	0.77	0.1	0.1	0.0	0.5	0.71	0.4
Bristol Bay		100.0	99.7	100.0	0.00	0.1	99.6	98.1	100.0	0.00	0.7
North Peninsula		0.0	0.0	0.1	0.57	0.1	0.3	0.0	1.5	0.37	0.6
South Peninsula		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
Chignik		0.0	0.0	0.0	0.85	0.0	0.0	0.0	0.0	0.84	0.1
East of WASSIP		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.90	0.1
Bristol Bay	Togiak	0.0	0.0	0.2	0.83	0.1	0.0	0.0	0.0	0.90	0.1
	Igushik	0.3	0.0	1.8	0.69	0.7	0.0	0.0	0.2	0.87	0.2
	Wood	0.2	0.0	1.3	0.69	0.5	0.0	0.0	0.0	0.91	0.1
	Nushagak	1.2	0.0	3.1	0.23	1.1	0.5	0.0	2.4	0.62	0.9
	Kvichak	31.7	27.2	36.4	0.00	2.8	32.0	26.1	38.0	0.00	3.6
	Alagnak	35.5	31.1	40.0	0.00	2.7	36.4	31.1	41.9	0.00	3.3
	Naknek	30.1	25.4	35.0	0.00	2.9	30.3	24.3	36.4	0.00	3.7
	Egegik	0.8	0.0	2.6	0.32	0.9	0.3	0.0	2.3	0.77	0.8
	Ugashik	0.1	0.0	0.2	0.87	0.3	0.1	0.0	0.2	0.87	0.3

*Note:* Stock composition estimates may not sum to 100% due to rounding error.

*Note:* H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Table 75.—Naknek-Kvichak District, Bristol Bay Area, Central Region, 2008, temporal strata 1–3. Regional and subregional (within Bristol Bay) reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (6/16–7/1; H=1,576,189; n=573) <sup>a</sup>					Stratum 2 (7/2–7/5; H=2,649,901; n=396) <sup>a</sup>					Stratum 3 (7/6–7/9; H=2,545,988; n=403) <sup>a</sup>				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%				5%	95%		
Norton Sound		0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.0
Kuskokwim Bay		0.5	0.0	1.5	0.31	0.5	0.3	0.0	1.5	0.56	0.5	0.2	0.0	0.9	0.48	0.3
Bristol Bay		99.4	98.4	100.0	0.00	0.6	99.6	98.5	100.0	0.00	0.6	99.8	99.0	100.0	0.00	0.4
North Peninsula		0.0	0.0	0.2	0.52	0.1	0.0	0.0	0.2	0.55	0.1	0.0	0.0	0.2	0.55	0.1
South Peninsula		0.0	0.0	0.0	0.90	0.1	0.1	0.0	0.4	0.79	0.2	0.0	0.0	0.0	0.92	0.0
Chignik		0.0	0.0	0.0	0.85	0.0	0.0	0.0	0.1	0.82	0.1	0.0	0.0	0.0	0.85	0.0
East of WASSIP		0.0	0.0	0.0	0.89	0.1	0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.92	0.0
Bristol Bay	Togiak	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.90	0.1	0.1	0.0	0.5	0.81	0.2
	Igushik	0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.3	0.84	0.2	0.0	0.0	0.1	0.88	0.2
	Wood	2.2	1.2	3.5	0.00	0.7	0.1	0.0	0.3	0.80	0.2	1.3	0.3	2.7	0.03	0.7
	Nushagak	0.3	0.0	1.3	0.44	0.5	0.2	0.0	0.9	0.49	0.4	0.6	0.0	2.2	0.48	0.8
	Kvichak	32.0	28.0	36.2	0.00	2.5	25.0	20.6	29.6	0.00	2.8	19.6	15.5	23.8	0.00	2.6
	Alagnak	8.3	6.2	10.7	0.00	1.4	17.6	14.1	21.4	0.00	2.2	14.3	11.2	17.6	0.00	2.0
	Naknek	46.3	41.9	50.7	0.00	2.7	54.4	49.3	59.5	0.00	3.1	58.2	53.1	63.1	0.00	3.0
	Egegik	10.2	7.6	12.9	0.00	1.6	2.2	0.6	4.4	0.00	1.2	5.7	3.5	8.2	0.00	1.4
	Ugashik	0.1	0.0	0.3	0.86	0.3	0.0	0.0	0.0	0.90	0.2	0.0	0.0	0.0	0.89	0.2

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

<sup>a</sup> Naknek-Kvichak District set gillnet only.

Table 76.—Naknek-Kvichak District, Bristol Bay Area, Central Region, 2008, temporal strata 4–6. Regional and subregional (within Bristol Bay) reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 4 (7/10–7/14; H=1,881,391; n=418) <sup>a</sup>					Stratum 5 (7/15–8/31; H=1,009,609; n=391)					Stratum 6 (6/19–7/29; H=718,766; n=385) <sup>b</sup>				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%				5%	95%		
Norton Sound		0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.90	0.1
Kuskokwim Bay		0.0	0.0	0.0	0.78	0.1	0.1	0.0	0.8	0.60	0.3	0.5	0.0	1.9	0.28	0.7
Bristol Bay		99.9	99.3	100.0	0.00	0.3	99.8	99.1	100.0	0.00	0.4	99.2	97.8	100.0	0.00	0.7
North Peninsula		0.1	0.0	0.6	0.48	0.3	0.0	0.0	0.2	0.54	0.1	0.0	0.0	0.2	0.54	0.1
South Peninsula		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.2	0.0	0.7	0.16	0.3
Chignik		0.0	0.0	0.2	0.79	0.1	0.0	0.0	0.0	0.85	0.0	0.0	0.0	0.0	0.85	0.0
East of WASSIP		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.0
Bristol Bay	Togiak	0.0	0.0	0.0	0.92	0.0	0.3	0.0	1.0	0.46	0.4	0.0	0.0	0.0	0.92	0.0
	Igushik	0.2	0.0	1.2	0.80	0.5	0.1	0.0	0.4	0.86	0.3	0.7	0.0	2.1	0.23	0.7
	Wood	1.6	0.2	3.2	0.03	0.9	0.8	0.0	1.9	0.08	0.6	0.1	0.0	0.3	0.84	0.2
	Nushagak	0.2	0.0	1.1	0.77	0.4	0.5	0.0	2.4	0.65	0.9	0.2	0.0	0.9	0.59	0.3
	Kvichak	13.4	10.0	17.1	0.00	2.2	24.4	20.0	29.0	0.00	2.7	48.2	43.4	53.1	0.00	3.0
	Alagnak	18.4	15.0	21.9	0.00	2.1	37.5	33.1	42.1	0.00	2.7	37.2	32.8	41.6	0.00	2.7
	Naknek	64.1	59.3	68.8	0.00	2.9	25.5	21.2	30.1	0.00	2.7	12.8	9.1	16.7	0.00	2.3
	Egegik	2.1	0.6	3.9	0.00	1.0	6.5	3.2	11.0	0.00	2.4	0.0	0.0	0.2	0.58	0.1
	Ugashik	0.0	0.0	0.0	0.92	0.1	4.3	0.0	8.0	0.11	2.4	0.0	0.0	0.0	0.90	0.1

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

<sup>a</sup> Naknek-Kvichak District set gillnet only.

<sup>b</sup> Kvichak Section only.



Table 77.—Nushagak District, Bristol Bay Area, Central Region, 2006, temporal strata 1–3. Regional and subregional (within Bristol Bay) reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (6/11–6/29; H=2,577,971; n=477)					Stratum 2 (6/30–7/5; H=3,635,772; n=396)					Stratum 3 (7/6–7/10; H=2,689,416; n=452)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%				5%	95%		
Norton Sound		0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.0
Kuskokwim Bay		0.4	0.0	2.8	0.57	1.0	3.1 <sup>a</sup>	0.3	7.0	0.03	2.1	5.5 <sup>a</sup>	2.6	8.9	0.00	1.9
Bristol Bay		99.6	97.2	100.0	0.00	1.0	96.9	92.9	99.6	0.00	2.1	94.5	91.1	97.4	0.00	1.9
North Peninsula		0.0	0.0	0.1	0.57	0.1	0.0	0.0	0.1	0.56	0.1	0.0	0.0	0.1	0.57	0.1
South Peninsula		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.1	0.88	0.2	0.0	0.0	0.0	0.92	0.0
Chignik		0.0	0.0	0.0	0.86	0.0	0.0	0.0	0.0	0.85	0.0	0.0	0.0	0.0	0.85	0.0
East of WASSIP		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
Bristol Bay	Togiak	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.90	0.2	0.0	0.0	0.0	0.90	0.1
	Igushik	0.1	0.0	0.5	0.66	0.3	0.3	0.0	2.2	0.82	0.9	6.5	2.6	10.6	0.02	2.5
	Wood	84.5	81.0	87.7	0.00	2.1	73.2	68.2	77.8	0.00	2.9	70.5	65.3	75.6	0.00	3.1
	Nushagak	15.0	11.4	18.7	0.00	2.2	23.3	18.2	28.5	0.00	3.1	17.3	13.0	21.7	0.00	2.6
	Kvichak	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.2	0.0	0.8	0.09	0.3
	Alagnak	0.0	0.0	0.0	0.92	0.0	0.1	0.0	0.3	0.82	0.2	0.0	0.0	0.0	0.90	0.1
	Naknek	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Egegik	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.1	0.88	0.1
	Ugashik	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.91	0.1

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

<sup>a</sup> Baseline evaluation tests suggest misallocations among reporting groups with sea/river-type sockeye salmon. Biases toward lower-represented reporting groups are likely between Kuskokwim R., Kanektok, Goodnews, Togiak, and Nushagak reporting groups.

Table 78.—Nushagak District, Bristol Bay Area, Central Region, 2006, temporal strata 4–6. Regional and subregional (within Bristol Bay) reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 4 (7/11–7/15; H=1,322,670; n=385)					Stratum 5 (7/16–8/20; H=472,266; n=397)					Stratum 6 (6/22–7/25; H=178,262; n=190) <sup>a</sup>				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%				5%	95%		
Norton Sound		0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.1
Kuskokwim Bay		4.1 <sup>b</sup>	0.0	7.8	0.05	2.4	1.2	0.0	3.2	0.12	1.1	0.2	0.0	1.4	0.68	0.7
Bristol Bay		95.9	92.1	100.0	0.00	2.4	98.7	96.8	100.0	0.00	1.1	99.7	98.4	100.0	0.00	0.7
North Peninsula		0.0	0.0	0.1	0.56	0.1	0.0	0.0	0.1	0.57	0.1	0.0	0.0	0.2	0.54	0.2
South Peninsula		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.1
Chignik		0.0	0.0	0.1	0.82	0.1	0.0	0.0	0.0	0.85	0.0	0.0	0.0	0.0	0.84	0.1
East of WASSIP		0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1
Bristol Bay	Togiak	0.0	0.0	0.1	0.87	0.1	0.4	0.0	1.5	0.55	0.6	0.0	0.0	0.0	0.91	0.1
	Igushik	0.9	0.0	4.9	0.41	1.7	3.9	0.0	8.3	0.15	2.6	97.4	93.8	99.5	0.00	1.9
	Wood	78.1	73.0	82.6	0.00	2.9	73.6	68.4	78.8	0.00	3.1	0.7	0.0	3.7	0.10	1.4
	Nushagak	16.7	12.0	22.1	0.00	3.1	20.8	16.8	25.1	0.00	2.5	1.6	0.0	3.9	0.09	1.2
	Kvichak	0.0	0.0	0.2	0.86	0.1	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.1
	Alagnak	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1
	Naknek	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.1
	Egegik	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.1
	Ugashik	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

<sup>a</sup> Igushik Section only.

<sup>b</sup> Baseline evaluation tests suggest misallocations among reporting groups with sea/river-type sockeye salmon. Biases toward lower-represented reporting groups are likely between Kuskokwim R., Kanektok, Goodnews, Togiak, and Nushagak reporting groups.

Table 79.—Nushagak District, Bristol Bay Area, Central Region, 2007, temporal strata 1–3. Regional and subregional (within Bristol Bay) reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (6/9–6/28; H=1,498,165; n=467)					Stratum 2 (6/29–7/2; H=1,875,216; n=412)					Stratum 3 (7/3–7/7; H=2,570,751; n=398)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%				5%	95%		
Norton Sound		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.1
Kuskokwim Bay		0.5	0.0	2.1	0.00	0.8	1.7	0.0	5.6	0.00	1.9	0.3	0.0	1.9	0.63	0.9
Bristol Bay		99.4	97.8	100.0	0.00	0.9	98.3	94.4	100.0	0.00	1.9	99.7	98.1	100.0	0.00	0.9
North Peninsula		0.0	0.0	0.2	0.54	0.1	0.0	0.0	0.1	0.57	0.1	0.0	0.0	0.1	0.56	0.1
South Peninsula		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
Chignik		0.0	0.0	0.0	0.86	0.0	0.0	0.0	0.0	0.85	0.0	0.0	0.0	0.0	0.85	0.0
East of WASSIP		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
Bristol Bay	Togiak	0.0	0.0	0.0	0.87	0.1	0.0	0.0	0.0	0.91	0.1	0.1	0.0	0.5	0.81	0.2
	Igushik	4.4	2.0	7.3	0.00	1.6	1.5	0.0	6.6	0.44	2.4	0.3	0.0	2.6	0.79	1.0
	Wood	74.9	70.0	79.6	0.00	2.9	77.9	71.9	82.9	0.00	3.4	73.9	69.3	78.1	0.00	2.7
	Nushagak	20.1	15.7	24.6	0.00	2.7	17.8	13.4	22.4	0.00	2.7	25.4	21.1	29.8	0.00	2.6
	Kvichak	0.0	0.0	0.0	0.89	0.1	0.1	0.0	0.5	0.78	0.2	0.0	0.0	0.0	0.91	0.1
	Alagnak	0.0	0.0	0.0	0.91	0.1	0.1	0.0	0.6	0.69	0.2	0.0	0.0	0.0	0.92	0.0
	Naknek	0.0	0.0	0.0	0.92	0.0	0.9	0.0	2.0	0.09	0.6	0.0	0.0	0.0	0.92	0.1
	Egegik	0.0	0.0	0.0	0.91	0.0	0.0	0.0	0.2	0.85	0.1	0.0	0.0	0.0	0.92	0.0
	Ugashik	0.0	0.0	0.0	0.91	0.0	0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.92	0.0

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Table 80.—Nushagak District, Bristol Bay Area, Central Region, 2007, temporal strata 4–5. Regional and subregional (within Bristol Bay) reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 4 (7/8–7/12; H=1,830,266; n=396)					Stratum 5 (7/13–8/31; H=629,713; n=399)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%		
	Norton Sound	0.2	0.0	1.3	0.78	0.5	0.0	0.0	0.0	0.92	0.0
	Kuskokwim Bay	1.6	0.0	3.5	0.07	1.0	7.1 <sup>a</sup>	3.0	11.5	0.00	2.7
	Bristol Bay	98.2	96.1	99.9	0.00	1.1	92.9	88.4	96.9	0.00	2.7
	North Peninsula	0.1	0.0	0.3	0.52	0.2	0.0	0.0	0.2	0.55	0.1
	South Peninsula	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.0
	Chignik	0.0	0.0	0.0	0.85	0.0	0.0	0.0	0.0	0.85	0.0
	East of WASSIP	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0
Bristol Bay	Togiak	0.1	0.0	0.7	0.80	0.4	6.4	4.0	9.0	0.00	1.7
	Igushik	6.2	0.0	11.7	0.07	3.4	9.7	4.8	16.1	0.00	3.5
	Wood	67.0	60.4	73.6	0.00	4.0	52.8	45.7	59.3	0.00	4.1
	Nushagak	24.9	20.2	29.6	0.00	2.8	18.1	13.6	23.0	0.00	2.9
	Kvichak	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1
	Alagnak	0.0	0.0	0.0	0.90	0.1	0.1	0.0	0.7	0.69	0.3
	Naknek	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.90	0.1
	Egegik	0.0	0.0	0.0	0.92	0.0	0.2	0.0	1.3	0.82	0.6
	Ugashik	0.1	0.0	0.5	0.82	0.2	5.5	3.4	7.8	0.00	1.3

*Note:* Stock composition estimates may not sum to 100% due to rounding error.

*Note:* H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

<sup>a</sup> Baseline evaluation tests suggest misallocations among reporting groups with sea/river-type sockeye salmon. Biases toward lower-represented reporting groups are likely between Kuskokwim R., Kanektok, Goodnews, Togiak, and Nushagak reporting groups.

Table 81.—Nushagak District, Bristol Bay Area, Central Region, 2008, temporal strata 1–3. Regional and subregional (within Bristol Bay) reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (6/9–7/1; H=1,908,168; n=426)					Stratum 2 (7/2–7/3; H=1,252,366; n=181)					Stratum 3 (7/4–7/6; H=1,097,706; n=277)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%			5%	95%			5%	95%				
Norton Sound		0.0	0.0	0.0	0.92	0.1	0.1	0.1	0.88	0.3	0.0	0.0	0.0	0.90	0.3	
Kuskokwim Bay		0.2	0.0	1.4	0.65	0.6	0.4	0.0	2.2	0.52	0.8	0.2	0.0	1.7	0.70	0.9
Bristol Bay		99.8	98.6	100.0	0.00	0.6	99.4	97.5	100.0	0.00	0.9	99.7	97.9	100.0	0.00	0.9
North Peninsula		0.0	0.0	0.1	0.57	0.1	0.1	0.0	0.6	0.50	0.3	0.1	0.0	0.3	0.53	0.2
South Peninsula		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.1	
Chignik		0.0	0.0	0.0	0.85	0.0	0.0	0.0	0.84	0.1	0.0	0.0	0.0	0.84	0.1	
East of WASSIP		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.90	0.2	0.0	0.0	0.0	0.92	0.0	
Bristol Bay	Togiak	0.0	0.0	0.0	0.92	0.1	0.1	0.0	0.2	0.87	0.4	0.0	0.0	0.0	0.91	0.1
	Igushik	1.2	0.0	5.1	0.22	1.8	0.4	0.0	3.7	0.82	1.5	13.9	7.5	20.5	0.00	4.0
	Wood	69.8	64.0	75.5	0.00	3.5	84.8	78.4	90.2	0.00	3.6	63.2	56.1	70.1	0.00	4.3
	Nushagak	28.8	23.5	34.1	0.00	3.2	14.0	9.0	19.9	0.00	3.3	20.7	15.3	26.4	0.00	3.4
	Kvichak	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.91	0.1	0.5	0.0	1.8	0.00	0.6	
	Alagnak	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.91	0.1	
	Naknek	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.91	0.1	
	Egegik	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.91	0.1	0.4	0.0	2.1	0.64	0.8	
	Ugashik	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.91	0.1	1.0	0.0	2.9	0.36	1.1	

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Table 82.—Nushagak District, Bristol Bay Area, Central Region, 2008, temporal strata 4–5. Regional and subregional (within Bristol Bay) reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 4 (7/7–7/9; H=1,366,658; n=396)					Stratum 5 (7/10–8/31; H=1,278,258; n=592)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%		
	Norton Sound	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Kuskokwim Bay	0.1	0.0	0.5	0.72	0.3	2.1 <sup>a</sup>	0.4	4.3	0.02	1.2
	Bristol Bay	99.9	99.4	100.0	0.00	0.3	97.9	95.7	99.6	0.00	1.2
	North Peninsula	0.0	0.0	0.1	0.57	0.1	0.0	0.0	0.1	0.56	0.1
	South Peninsula	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Chignik	0.0	0.0	0.0	0.85	0.0	0.0	0.0	0.0	0.85	0.0
	East of WASSIP	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.93	0.0
Bristol Bay	Togiak	0.0	0.0	0.0	0.92	0.1	1.8	0.4	3.1	0.02	0.8
	Igushik	0.9	0.0	4.7	0.23	1.7	21.6	16.1	27.3	0.00	3.4
	Wood	81.1	75.9	85.7	0.00	3.0	61.3	55.3	67.2	0.00	3.6
	Nushagak	17.8	13.6	22.3	0.00	2.6	13.2	10.0	16.6	0.00	2.0
	Kvichak	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.89	0.1
	Alagnak	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Naknek	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.0
	Egegik	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.0
	Ugashik	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0

*Note:* Stock composition estimates may not sum to 100% due to rounding error.

*Note:* H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

<sup>a</sup> Baseline evaluation tests suggest misallocations among reporting groups with sea/river-type sockeye salmon. Biases toward lower-represented reporting groups are likely between Kuskokwim R., Kanektok, Goodnews, Togiak, and Nushagak reporting groups.

Table 83.—Togiak District, Bristol Bay Area, Central Region, 2006, temporal strata 1–3. Regional and subregional (within Bristol Bay) reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (6/19–7/2; H=46,650; n=149)					Stratum 2 (7/3–7/10; H=127,445; n=222)					Stratum 5 (7/22–8/9; H=184,237; n=260)				
		Mean	90% CI		P=0	SD	Mean	90% CI		P=0	SD	Mean	90% CI		P=0	SD
Regional	Subregional		5%	95%				5%	95%				5%	95%		
Norton Sound		0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0
Kuskokwim Bay		40.1 <sup>a</sup>	27.4	53.7	0.00	8.0	51.8 <sup>a</sup>	29.1	69.5	0.00	12.6	9.4 <sup>a</sup>	0.0	22.4	0.02	7.4
Bristol Bay		59.8	46.1	72.5	0.00	8.0	48.1	30.4	70.8	0.00	12.6	90.5	77.6	100.0	0.00	7.4
North Peninsula		0.1	0.0	0.8	0.48	0.4	0.1	0.0	0.4	0.52	0.2	0.0	0.0	0.2	0.54	0.1
South Peninsula		0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.0
Chignik		0.0	0.0	0.0	0.83	0.1	0.0	0.0	0.0	0.84	0.1	0.0	0.0	0.1	0.83	0.1
East of WASSIP		0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.0
Bristol Bay	Togiak	59.6	46.0	72.3	0.00	8.0	40.7	23.6	63.0	0.00	12.3	89.4	76.4	99.1	0.00	7.4
	Igushik	0.0	0.0	0.0	0.90	0.2	0.0	0.0	0.0	0.91	0.1	0.4	0.0	2.1	0.57	0.8
	Wood	0.0	0.0	0.0	0.91	0.1	5.6	3.0	8.7	0.00	1.8	0.3	0.0	1.1	0.40	0.4
	Nushagak	0.1	0.0	0.2	0.87	0.4	1.8	0.0	5.5	0.31	1.9	0.2	0.0	1.1	0.69	0.4
	Kvichak	0.0	0.0	0.1	0.88	0.2	0.0	0.0	0.0	0.91	0.1	0.1	0.0	0.5	0.82	0.2
	Alagnak	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.1
	Naknek	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.91	0.1	0.2	0.0	1.1	0.51	0.4
	Egegik	0.0	0.0	0.0	0.90	0.2	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.1
	Ugashik	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.0

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

<sup>a</sup> Baseline evaluation tests suggest misallocations among reporting groups with sea/river-type sockeye salmon. Biases toward lower-represented reporting groups are likely between Kuskokwim R., Kanektok, Goodnews, Togiak, and Nushagak reporting groups.

Table 84.—Togiak District, Bristol Bay Area, Central Region, 2007, temporal strata 1–3. Regional and subregional (within Bristol Bay) reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (6/18–7/6; H=126,126; n=394)					Stratum 2 (7/7–7/10; H=73,697; n=398)					Stratum 3 (7/13–7/16; H=162,075; n=299)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%				5%	95%		
	Norton Sound	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.89	0.2
	Kuskokwim Bay	62.1 <sup>a</sup>	51.7	72.2	0.00	6.7	39.9 <sup>a</sup>	27.1	56.3	0.00	8.7	15.4 <sup>a</sup>	8.3	23.1	0.00	4.5
	Bristol Bay	37.9	27.8	48.3	0.00	6.7	60.0	43.7	72.8	0.00	8.7	84.3	76.6	91.5	0.00	4.5
	North Peninsula	0.0	0.0	0.1	0.57	0.1	0.0	0.0	0.2	0.56	0.1	0.1	0.0	0.7	0.49	0.3
	South Peninsula	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.1	0.0	0.7	0.78	0.3
	Chignik	0.0	0.0	0.0	0.85	0.0	0.0	0.0	0.0	0.85	0.0	0.0	0.0	0.1	0.83	0.1
	East of WASSIP	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1
Bristol Bay	Togiak	37.3	27.2	47.7	0.00	6.7	59.7	43.3	72.5	0.00	8.7	84.2	76.5	91.4	0.00	4.6
	Igushik	0.1	0.0	0.6	0.83	0.3	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.3	0.83	0.2
	Wood	0.0	0.0	0.2	0.82	0.1	0.0	0.0	0.1	0.69	0.1	0.1	0.0	0.3	0.81	0.2
	Nushagak	0.5	0.0	1.6	0.32	0.6	0.0	0.0	0.0	0.88	0.1	0.0	0.0	0.0	0.91	0.1
	Kvichak	0.0	0.0	0.0	0.92	0.0	0.3	0.0	0.8	0.00	0.3	0.0	0.0	0.0	0.92	0.0
	Alagnak	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Naknek	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.1
	Egegik	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.3	0.84	0.2	0.0	0.0	0.0	0.92	0.1
	Ugashik	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.1

*Note:* Stock composition estimates may not sum to 100% due to rounding error.

*Note:* H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

<sup>a</sup> Baseline evaluation tests suggest misallocations among reporting groups with sea/river-type sockeye salmon. Biases toward lower-represented reporting groups are likely between Kuskokwim R., Kanektok, Goodnews, Togiak, and Nushagak reporting groups.



Table 85.—Togiak District, Bristol Bay Area, Central Region, 2007, temporal strata 4–5. Regional and subregional (within Bristol Bay) reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 4 (7/17–7/21; H=144,030; n=392)					Stratum 5 (7/23–8/6; H=310,653; n=395)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		0.05	0.95				0.05	0.95		
	Norton Sound	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Kuskokwim Bay	24.8 <sup>a</sup>	15.7	34.4	0.00	5.7	4.2 <sup>a</sup>	0.0	11.2	0.04	3.6
	Bristol Bay	75.1	65.5	84.2	0.00	5.7	95.8	88.8	100.0	0.00	3.6
	North Peninsula	0.1	0.0	0.5	0.48	0.2	0.0	0.0	0.1	0.57	0.1
	South Peninsula	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Chignik	0.0	0.0	0.1	0.80	0.1	0.0	0.0	0.0	0.85	0.0
	East of WASSIP	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1
Bristol Bay	Togiak	74.9	65.3	83.9	0.00	5.7	95.7	88.7	100.0	0.00	3.6
	Igushik	0.0	0.0	0.2	0.86	0.2	0.0	0.0	0.0	0.92	0.0
	Wood	0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.92	0.0
	Nushagak	0.2	0.0	0.7	0.45	0.3	0.1	0.0	0.7	0.83	0.3
	Kvichak	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Alagnak	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Naknek	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Egegik	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Ugashik	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0

*Note:* Stock composition estimates may not sum to 100% due to rounding error.

*Note:* H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

<sup>a</sup> Baseline evaluation tests suggest misallocations among reporting groups with sea/river-type sockeye salmon. Biases toward lower-represented reporting groups are likely between Kuskokwim R., Kanektok, Goodnews, Togiak, and Nushagak reporting groups.

Table 86.—Togiak District, Bristol Bay Area, Central Region, 2008, temporal strata 1–3. Regional and subregional (within Bristol Bay) reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (6/18–7/5; H=64,331; n=395)					Stratum 2 (7/7–7/12; H=133,406; n=499)					Stratum 3 (7/13–7/19; H=194,162; n=390)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		0.05	0.95				0.05	0.95				0.05	0.95		
Norton Sound		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
Kuskokwim Bay		58.8 <sup>a</sup>	49.2	67.0	0.00	5.4	32.3 <sup>a</sup>	15.4	66.3	0.00	17.6	17.8 <sup>a</sup>	10.9	27.2	0.00	5.0
Bristol Bay		40.7	32.5	50.3	0.00	5.4	67.6	33.6	84.5	0.00	17.6	82.1	72.7	89.0	0.00	5.0
North Peninsula		0.1	0.0	0.6	0.42	0.2	0.2	0.0	0.9	0.41	0.3	0.0	0.0	0.2	0.55	0.1
South Peninsula		0.0	0.0	0.0	0.89	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
Chignik		0.4	0.0	1.1	0.25	0.4	0.0	0.0	0.0	0.86	0.0	0.0	0.0	0.0	0.85	0.0
East of WASSIP		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
Bristol Bay	Togiak	39.7	31.6	49.3	0.00	5.4	66.2	32.1	83.1	0.00	17.6	81.7	72.3	88.6	0.00	5.0
	Igushik	0.4	0.0	1.5	0.44	0.5	0.0	0.0	0.0	0.91	0.1	0.1	0.0	0.4	0.78	0.2
	Wood	0.0	0.0	0.2	0.84	0.2	1.3	0.3	2.5	0.00	0.7	0.4	0.0	1.2	0.18	0.4
	Nushagak	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.3	0.86	0.2	0.0	0.0	0.0	0.92	0.0
	Kvichak	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Alagnak	0.6	0.1	1.3	0.01	0.4	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Naknek	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.93	0.0	0.0	0.0	0.0	0.92	0.0
	Egegik	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.91	0.0	0.0	0.0	0.0	0.92	0.0
	Ugashik	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.1	0.87	0.1	0.0	0.0	0.0	0.92	0.0

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

<sup>a</sup> Baseline evaluation tests suggest misallocations among reporting groups with sea/river-type sockeye salmon. Biases toward lower-represented reporting groups are likely between Kuskokwim R., Kanektok, Goodnews, Togiak, and Nushagak reporting groups.

Table 87.—Togiak District, Bristol Bay Area, Central Region, 2008, temporal strata 4–5. Regional and subregional (within Bristol Bay) reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 4 (7/20–7/24; H=150,072; n=391)					Stratum 5 (7/25–8/6; H=109,344; n=396)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		0.05	0.95				0.05	0.95		
Norton Sound		0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.92	0.0
Kuskokwim Bay		27.6 <sup>a</sup>	17.6	39.1	0.00	6.6	5.0 <sup>a</sup>	0.0	16.0	0.13	5.0
Bristol Bay		72.4	60.9	82.4	0.00	6.6	95.0	84.0	100.0	0.00	5.0
North Peninsula		0.0	0.0	0.1	0.57	0.1	0.0	0.0	0.2	0.54	0.1
South Peninsula		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
Chignik		0.0	0.0	0.0	0.85	0.1	0.0	0.0	0.0	0.85	0.0
East of WASSIP		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
Bristol Bay	Togiak	71.8	60.4	81.9	0.00	6.6	95.0	84.0	100.0	0.00	5.0
	Igushik	0.0	0.0	0.0	0.89	0.1	0.0	0.0	0.0	0.92	0.0
	Wood	0.5	0.0	1.3	0.03	0.4	0.0	0.0	0.0	0.92	0.0
	Nushagak	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0
	Kvichak	0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.93	0.0
	Alagnak	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0
	Naknek	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Egegik	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0
	Ugashik	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.1	0.87	0.1

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

<sup>a</sup> Baseline evaluation tests suggest misallocations among reporting groups with sea/river-type sockeye salmon. Biases toward lower-represented reporting groups are likely between Kuskokwim R., Kanektok, Goodnews, Togiak, and Nushagak reporting groups.

Table 88.—District 5 Commercial, Kuskokwim Area, Arctic-Yukon-Kuskokwim Region, 2006, temporal stratum 1. Regional and subregional (within Kuskokwim Bay) reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (6/22–7/3; H=9,809; n=130)				
		Mean	90% CI		$P=0$	SD
Regional	Subregional		0.05	0.95		
	Norton Sound	0.1	0.0	0.1	0.88	0.4
	Kuskokwim Bay	96.5	88.0	100.0	0.00	4.1
	Bristol Bay	3.4 <sup>a</sup>	0.0	11.9	0.02	4.1
	North Peninsula	0.1	0.0	0.4	0.52	0.3
	South Peninsula	0.0	0.0	0.0	0.91	0.1
	Chignik	0.0	0.0	0.0	0.83	0.1
	East of WASSIP	0.0	0.0	0.0	0.90	0.2
Kuskokwim Bay	Kuskokwim R.	4.8	0.9	11.3	0.00	3.3
	Kanektok	0.1	0.0	0.1	0.89	0.8
	Goodnews	91.5	82.9	98.1	0.00	4.7

*Note:* Stock composition estimates may not sum to 100% due to rounding error.

*Note:* H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

<sup>a</sup> Baseline evaluation tests suggest misallocations among reporting groups with sea/river-type sockeye salmon. Biases toward lower-represented reporting groups are likely between Kuskokwim R., Kanektok, Goodnews, Togiak, and Nushagak reporting groups.

Table 89.—District 5 Commercial, Kuskokwim Area, Arctic-Yukon-Kuskokwim Region, 2007, temporal strata 1–3. Regional and subregional (within Kuskokwim Bay) reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (6/19–7/4; H=13,762; n=168) <sup>a</sup>					Stratum 2 (7/6–7/16; H=16,557; n=376)					Stratum 3 (7/18–8/31; H=13,447; n=388)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		0.05	0.95				0.05	0.95				0.05	0.95		
	Norton Sound	0.0	0.0	0.0	0.91	0.1	0.3	0.0	0.8	0.00	0.3	0.4	0.0	1.9	0.53	0.7
	Kuskokwim Bay	86.4	78.5	92.5	0.00	4.3	60.8	53.2	68.1	0.00	4.6	38.5	32.2	45.0	0.00	3.9
	Bristol Bay	13.5 <sup>b</sup>	7.5	21.4	0.00	4.3	38.8 <sup>a</sup>	31.5	46.4	0.00	4.6	60.9 <sup>a</sup>	54.4	67.2	0.00	3.9
	North Peninsula	0.1	0.0	0.3	0.54	0.2	0.1	0.0	0.6	0.50	0.3	0.2	0.0	0.9	0.39	0.3
	South Peninsula	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Chignik	0.0	0.0	0.0	0.84	0.1	0.0	0.0	0.0	0.84	0.1	0.0	0.0	0.0	0.85	0.0
	East of WASSIP	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
Kuskokwim Bay	Kuskokwim R.	0.4	0.0	2.9	0.59	1.0	0.0	0.0	0.0	0.91	0.2	0.0	0.0	0.0	0.91	0.2
	Kanektok	0.1	0.0	0.4	0.85	0.4	5.8	3.5	8.6	0.00	1.6	5.0	3.1	7.4	0.00	1.4
	Goodnews	85.9	78.1	91.8	0.00	4.2	55.0	47.3	62.5	0.00	4.6	33.5	27.2	40.0	0.00	3.9

*Note:* Stock composition estimates may not sum to 100% due to rounding error.

*Note:* H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

<sup>a</sup> Estimates for this stratum failed to converge following reanalysis with 80,000-iteration chains and are based upon three of five chains based upon HWLER results. See text for details.

<sup>b</sup> Baseline evaluation tests suggest misallocations among reporting groups with sea/river-type sockeye salmon. Biases toward lower-represented reporting groups are likely between Kuskokwim R., Kanektok, Goodnews, Togiak, and Nushagak reporting groups.

Table 90.—District 4 Commercial, Kuskokwim Area, Arctic-Yukon-Kuskokwim Region, 2006, temporal strata 1–3. Regional and subregional (within Kuskokwim Bay) reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (6/15–6/30; H=25,131; n=341)					Stratum 2 (7/3–7/10; H=47,245; n=376)					Stratum 3 (7/17–9/1; H=33,932; n=396)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional															
		0.0	0.0	0.0	0.92	0.0	0.1	0.0	0.2	0.88	0.4	0.0	0.0	0.0	0.92	0.0
		99.8	99.0	100.0	0.00	0.5	98.7	94.8	100.0	0.00	1.7	91.0	87.9	93.9	0.00	1.8
		0.2	0.0	0.9	0.30	0.5	1.2	0.0	5.1	0.09	1.7	8.9 <sup>a</sup>	6.1	12.0	0.00	1.8
		0.0	0.0	0.1	0.56	0.1	0.1	0.0	0.3	0.53	0.2	0.0	0.0	0.2	0.55	0.1
		0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0
		0.0	0.0	0.0	0.85	0.0	0.0	0.0	0.0	0.85	0.0	0.0	0.0	0.0	0.85	0.0
		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
Kuskokwim Bay	Kuskokwim R.	0.1	0.0	0.4	0.40	0.3	0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.92	0.1
	Kanektok	97.1	90.4	100.0	0.00	3.4	97.3	92.6	100.0	0.00	2.5	90.9	87.7	93.8	0.00	1.8
	Goodnews	2.7	0.0	9.2	0.24	3.3	1.4	0.0	6.3	0.59	2.3	0.1	0.0	0.9	0.81	0.5

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

<sup>a</sup> Baseline evaluation tests suggest misallocations among reporting groups with sea/river-type sockeye salmon. Biases toward lower-represented reporting groups are likely between Kuskokwim R., Kanektok, Goodnews, Togiak, and Nushagak reporting groups.

Table 91.—District 4 Commercial, Kuskokwim Area, Arctic-Yukon-Kuskokwim Region, 2007, temporal strata 1–3. Regional and subregional (within Kuskokwim Bay) reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (6/14–7/2; H=16,671; n=377)					Stratum 2 (7/4–7/16; H=71,482; n=395)					Stratum 3 (7/18–8/31; H=21,364; n=389)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional															
		0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.1
		98.0	93.7	100.0	0.00	2.0	94.7	89.3	98.5	0.00	2.9	92.3	89.4	94.9	0.00	1.7
		1.6	0.0	5.9	0.08	2.0	5.3 <sup>a</sup>	1.5	10.6	0.00	2.9	7.6 <sup>a</sup>	5.0	10.5	0.00	1.7
		0.3	0.0	1.5	0.35	0.5	0.0	0.0	0.1	0.57	0.1	0.1	0.0	0.7	0.45	0.3
		0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
		0.0	0.0	0.0	0.85	0.0	0.0	0.0	0.0	0.85	0.0	0.0	0.0	0.1	0.80	0.1
		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
Kuskokwim Bay	Kuskokwim R.	20.1	16.1	24.9	0.00	2.7	2.6	0.0	5.9	0.16	1.9	0.0	0.0	0.0	0.90	0.3
	Kanektok	77.9	72.6	82.6	0.00	3.1	92.1	87.7	96.0	0.00	2.5	92.3	89.3	94.9	0.00	1.7
	Goodnews	0.0	0.0	0.0	0.83	0.1	0.0	0.0	0.0	0.88	0.3	0.0	0.0	0.0	0.91	0.1

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

<sup>a</sup> Baseline evaluation tests suggest misallocations among reporting groups with sea/river-type sockeye salmon. Biases toward lower-represented reporting groups are likely between Kuskokwim R., Kanektok, Goodnews, Togiak, and Nushagak reporting groups.

Table 92.—District 4 Commercial, Kuskokwim Area, Arctic-Yukon-Kuskokwim Region, 2008, temporal strata 1–3. Regional and subregional (within Kuskokwim Bay) reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (6/14–7/8; H=23,301; n=393)					Stratum 2 (7/10–7/18; H=36,749; n=397)					Stratum 3 (7/21–8/29; H=9,693; n=395)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional															
		0.0	0.0	0.0	0.92	0.0	0.2	0.0	1.1	0.73	0.4	0.2	0.0	1.4	0.70	0.5
		99.7	98.6	100.0	0.00	0.7	97.9	96.2	99.3	0.00	1.0	90.4	87.4	93.1	0.00	1.8
		0.2	0.0	1.1	0.39	0.6	1.9	0.6	3.5	0.00	0.9	9.3 <sup>a</sup>	6.7	12.3	0.00	1.7
		0.0	0.0	0.2	0.55	0.1	0.0	0.0	0.3	0.52	0.2	0.1	0.0	0.3	0.51	0.1
		0.1	0.0	0.4	0.85	0.2	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
		0.0	0.0	0.0	0.85	0.0	0.0	0.0	0.0	0.86	0.0	0.0	0.0	0.0	0.85	0.0
		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
Kuskokwim Bay	Kuskokwim R.	0.6	0.0	3.4	0.13	1.2	0.0	0.0	0.0	0.83	0.1	0.0	0.0	0.0	0.91	0.1
	Kanektok	99.0	95.9	100.0	0.00	1.5	97.9	96.1	99.3	0.00	1.0	90.4	87.4	93.1	0.00	1.8
	Goodnews	0.1	0.0	0.0	0.90	0.5	0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.91	0.1

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

<sup>a</sup> Baseline evaluation tests suggest misallocations among reporting groups with sea/river-type sockeye salmon. Biases toward lower-represented reporting groups are likely between Kuskokwim R., Kanektok, Goodnews, Togiak, and Nushagak reporting groups.



## **FIGURES**

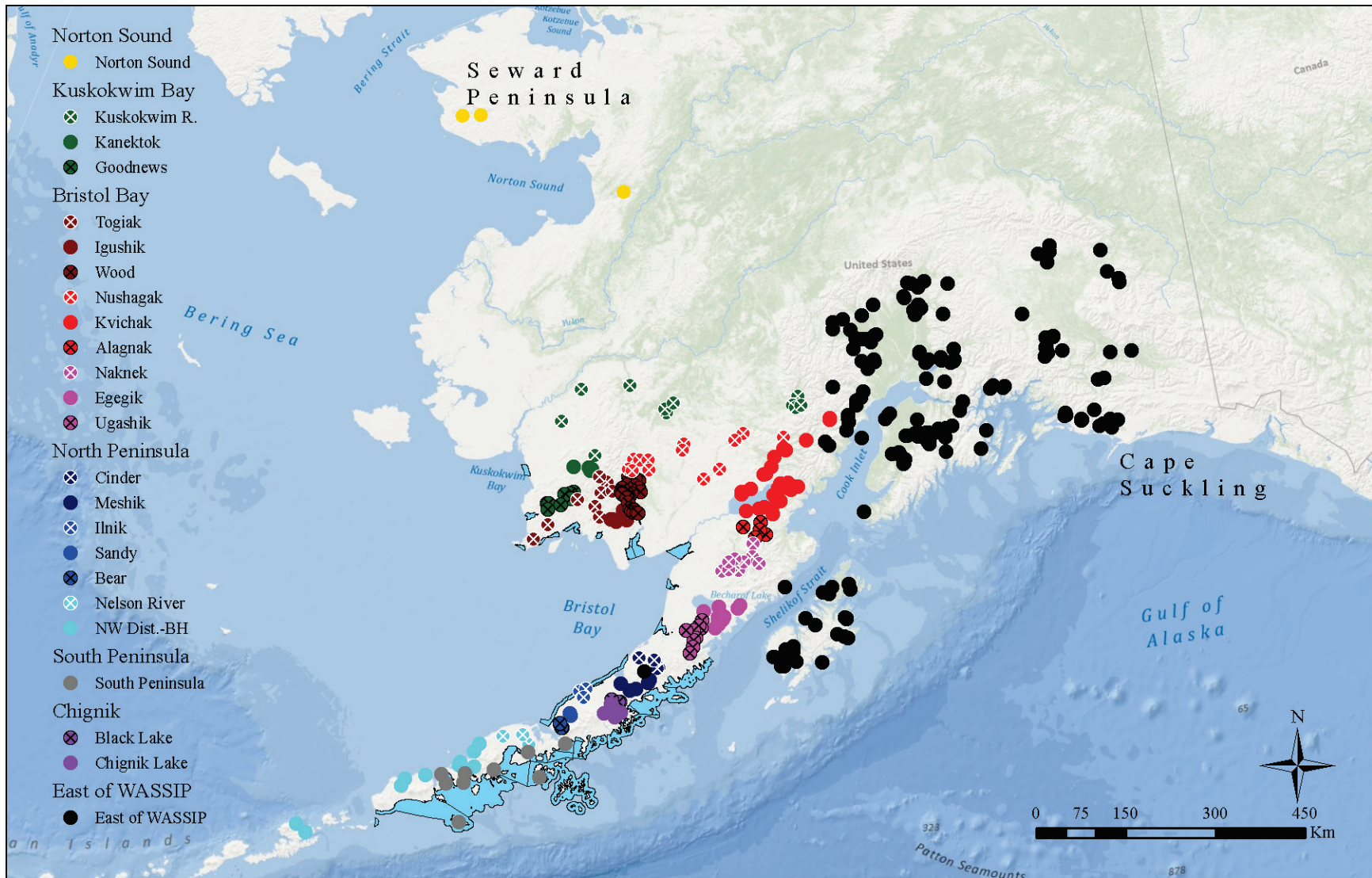


Figure 1.— Map detailing locations of 450 collections of sockeye salmon included in the baseline (dots) used to estimate stock compositions of catch samples and sockeye salmon fisheries sampled as part of the Western Alaska Salmon Stock Identification Project (blue polygons). Note that color patterns of baseline collections denote subregional reporting group affiliation, which are grouped by regional reporting group in the legend.

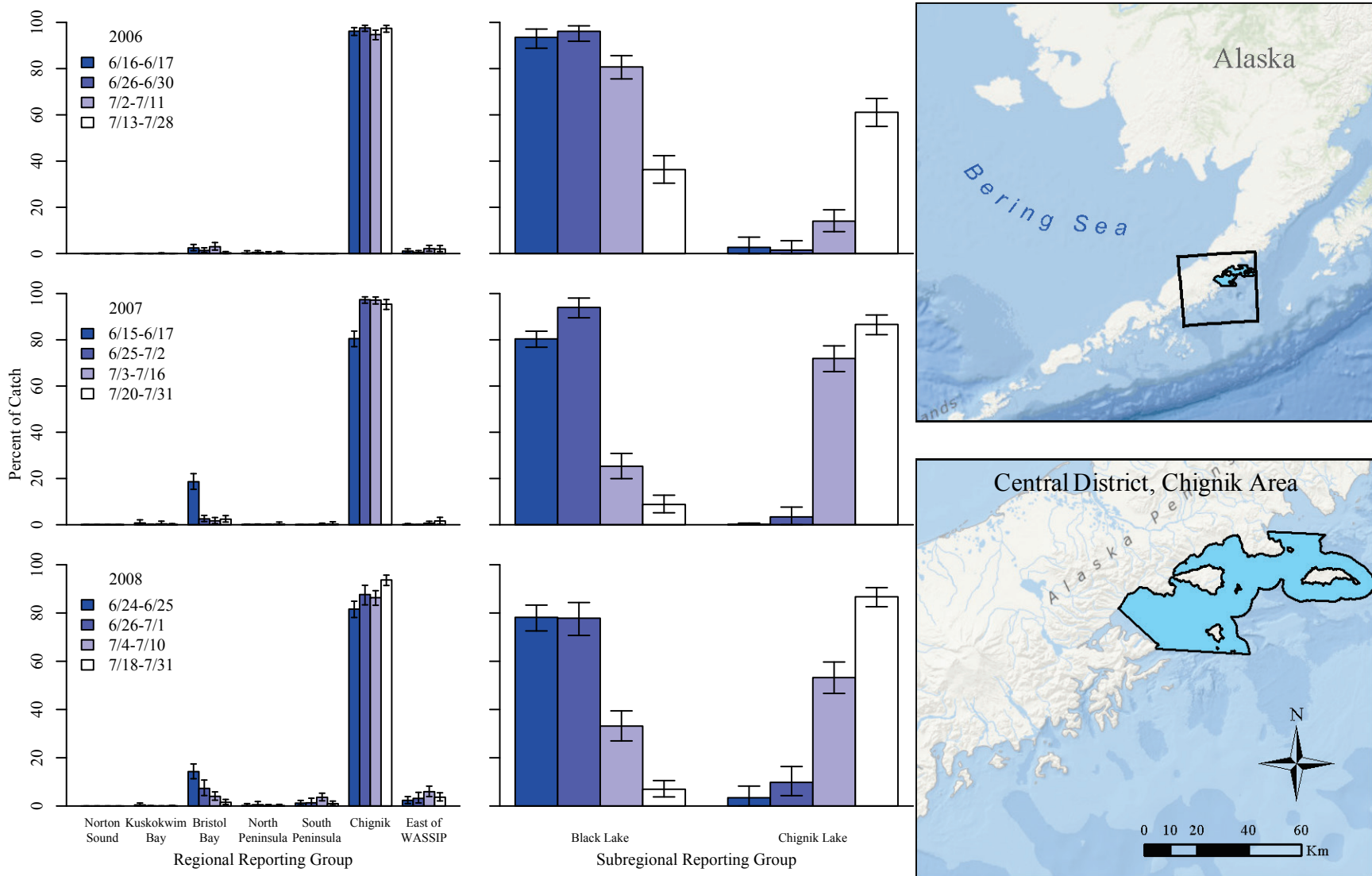


Figure 2.— Mean regional and subregional (within Chignik) stock composition estimates (bars) and 90% credibility intervals (whiskers) by temporal stratum within years for sockeye salmon sampled from Central District, Chignik Area, Westward Region (map) in 2006–2008 for the Western Alaska Salmon Stock Identification Project.

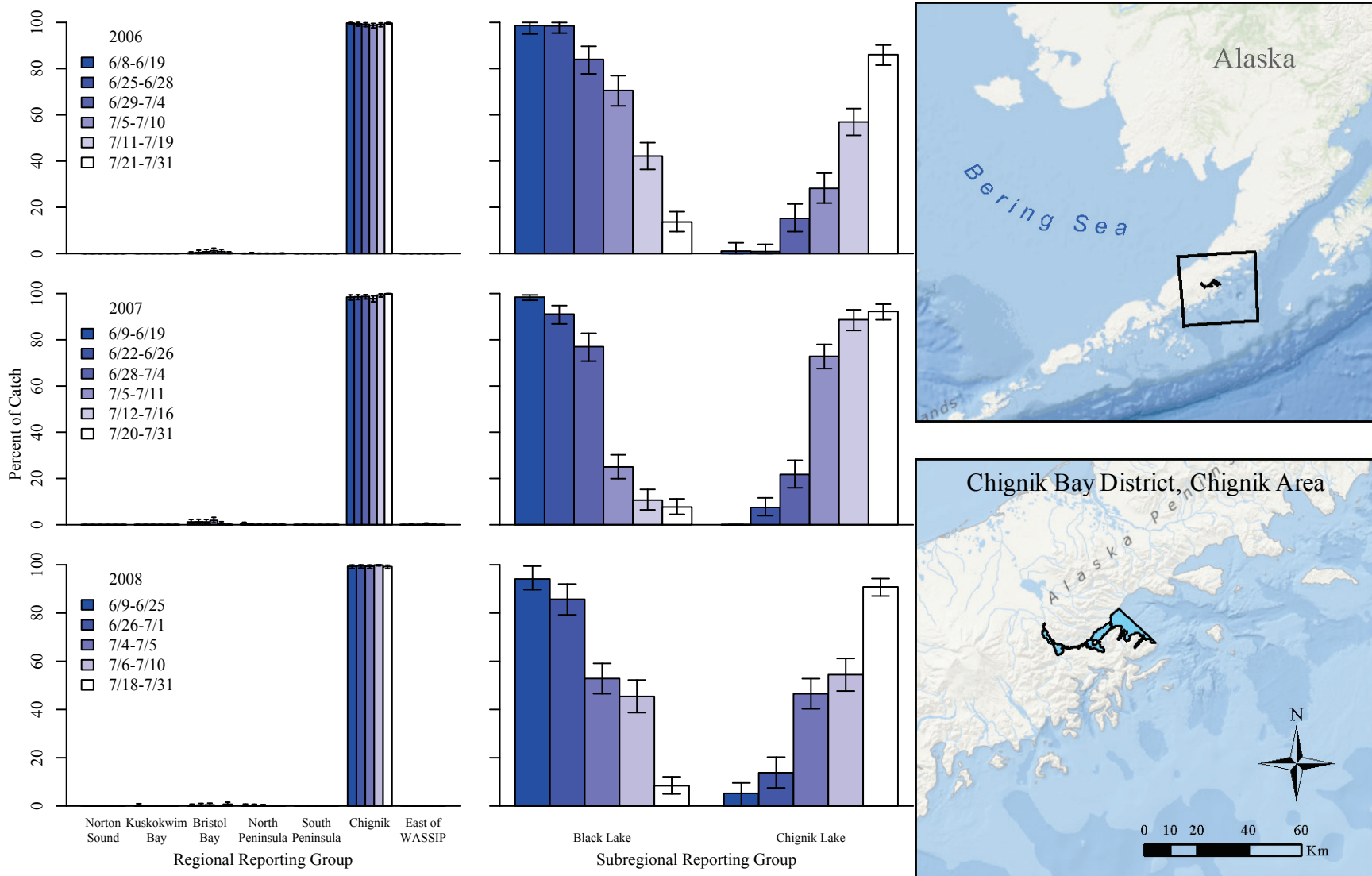


Figure 3.– Mean regional and subregional (within Chignik) stock composition estimates (bars) and 90% credibility intervals (whiskers) by temporal stratum within years for sockeye salmon sampled from Chignik Bay, Chignik Area, Westward Region (map) in 2006–2008 for the Western Alaska Salmon Stock Identification Project.



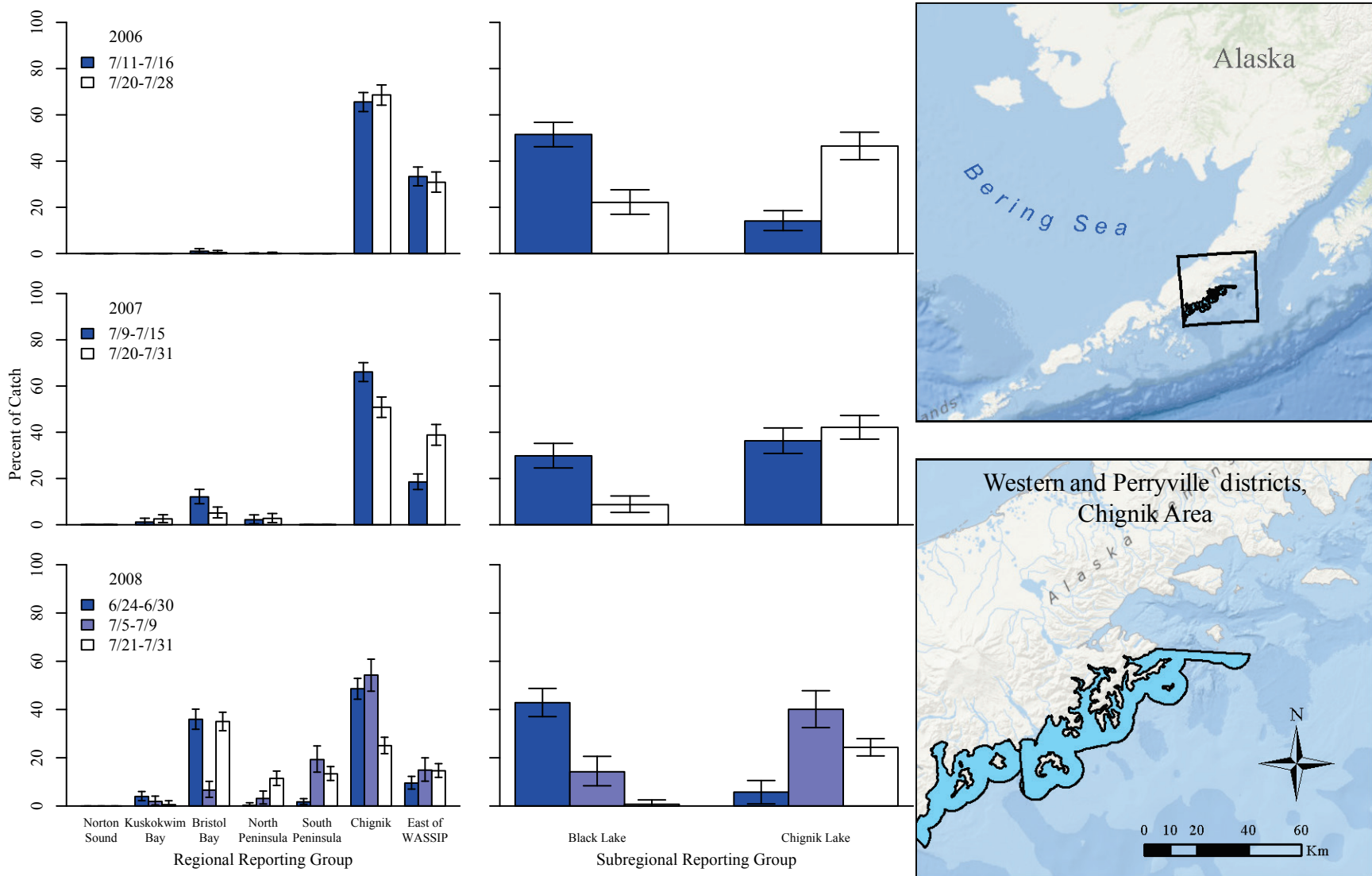


Figure 4.– Mean regional and subregional (within Chignik) stock composition estimates (bars) and 90% credibility intervals (whiskers) by temporal stratum within years for sockeye salmon sampled from Western and Perryville districts, Chignik Area, Westward Region (map) in 2006–2008 for the Western Alaska Salmon Stock Identification Project.

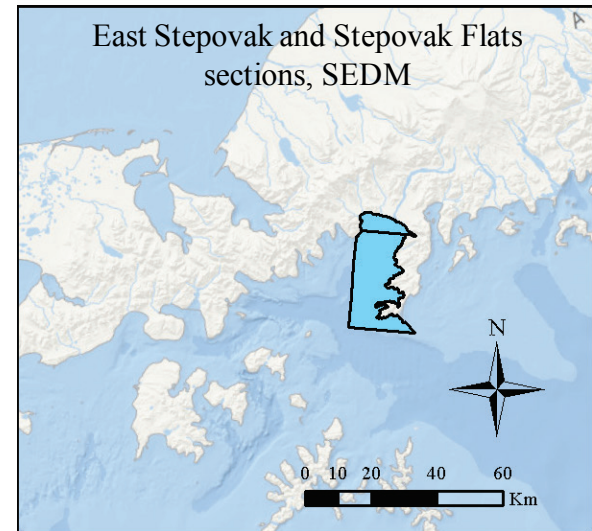
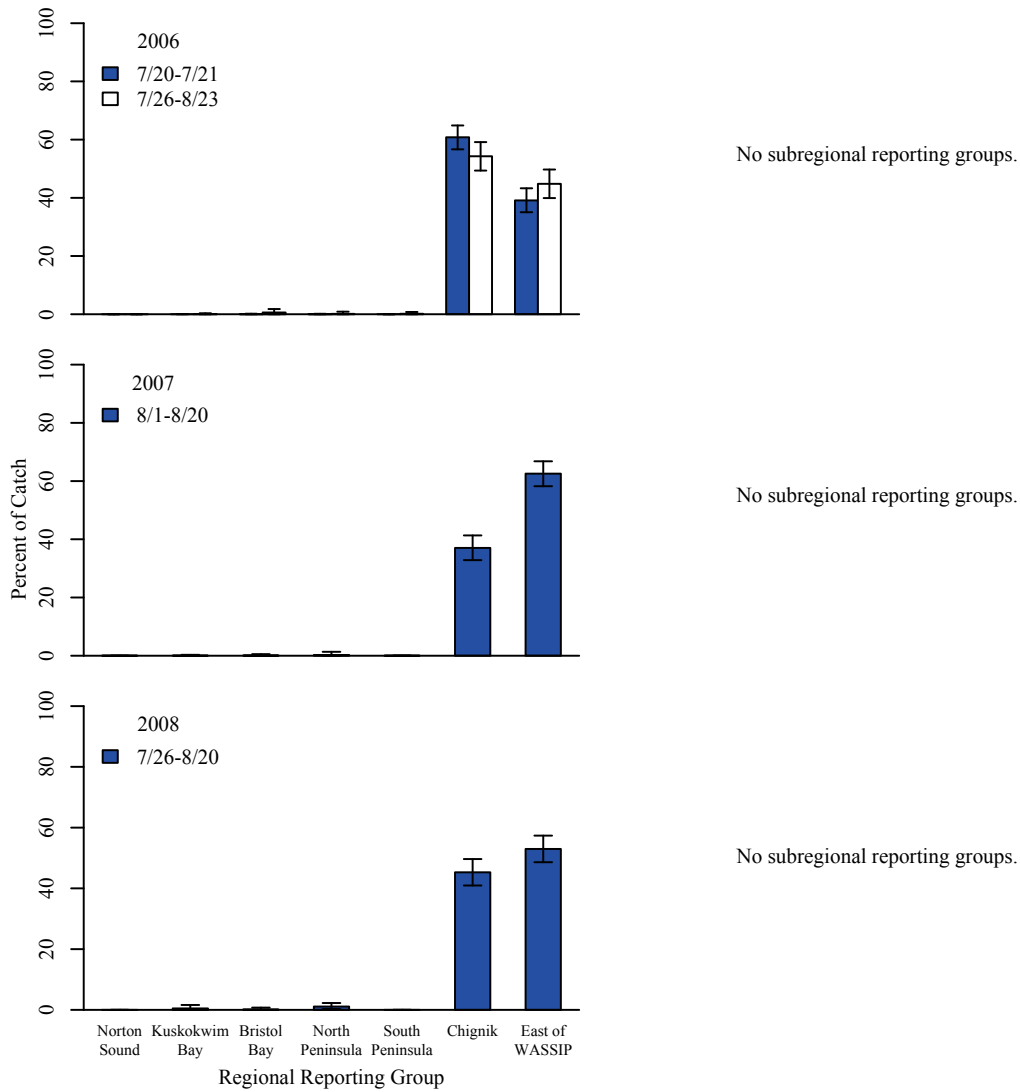
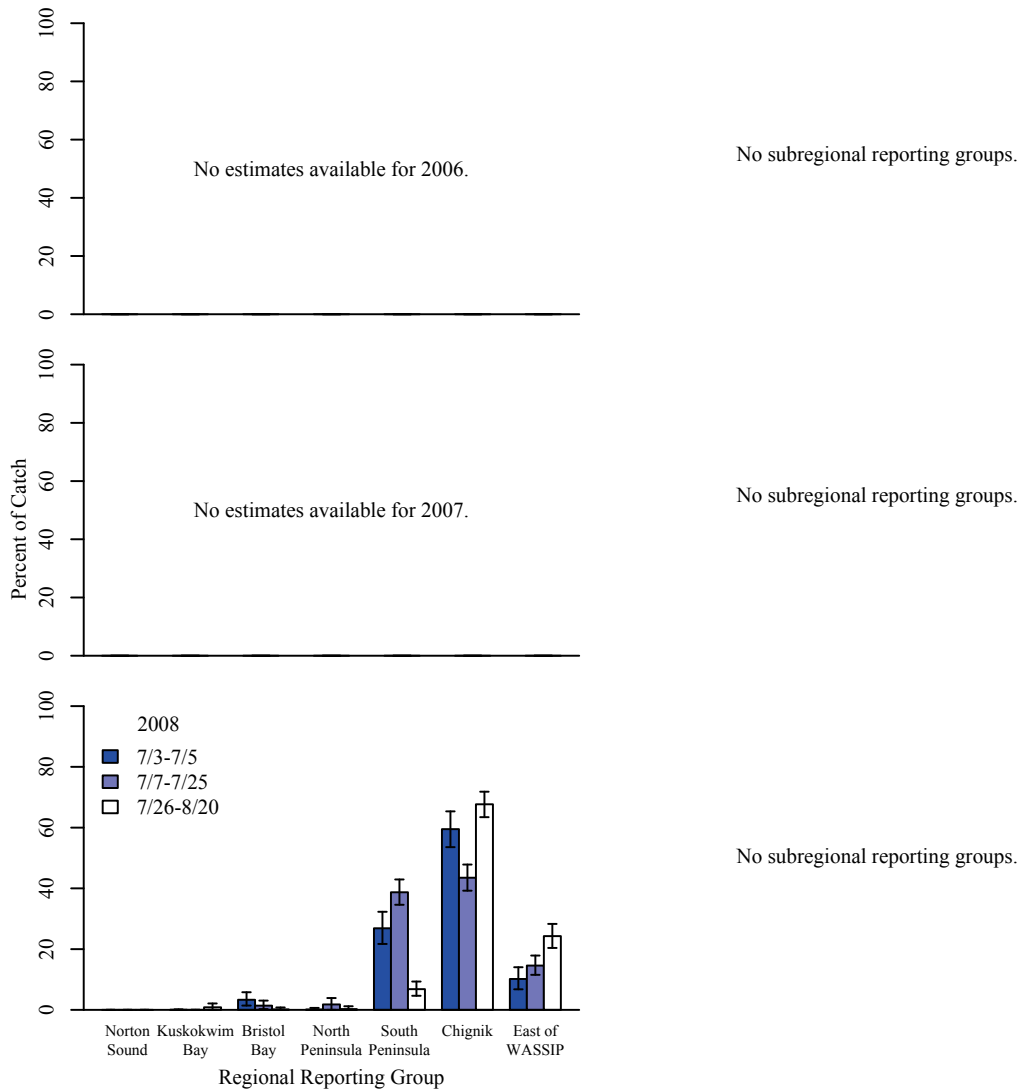


Figure 5.— Mean regional stock composition estimates (bars) and 90% credibility intervals (whiskers) by temporal stratum within years for sockeye salmon sampled from East Stepovak and Stepovak Flats sections, Southeastern District Mainland area, Southeastern District, Alaska Peninsula Area, Westward Region (map) in 2006–2008 for the Western Alaska Salmon Stock Identification Project.



No subregional reporting groups.

No subregional reporting groups.

No subregional reporting groups.

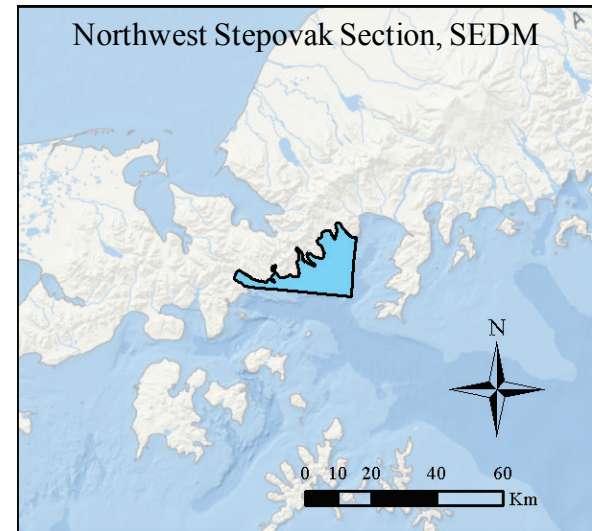
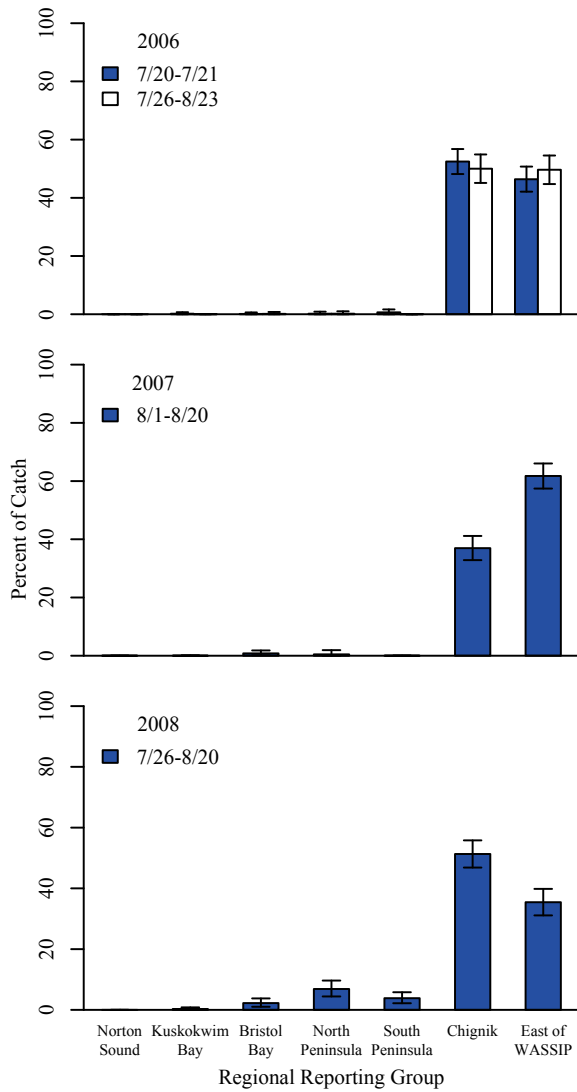


Figure 6.– Mean regional stock composition estimates (bars) and 90% credibility intervals (whiskers) by temporal stratum within years for sockeye salmon sampled from Northwest Stepovak Section, Southeastern District Mainland area, Southeastern District, Alaska Peninsula Area, Westward Region (map) in 2006–2008 for the Western Alaska Salmon Stock Identification Project.



No subregional reporting groups.

No subregional reporting groups.

No subregional reporting groups.

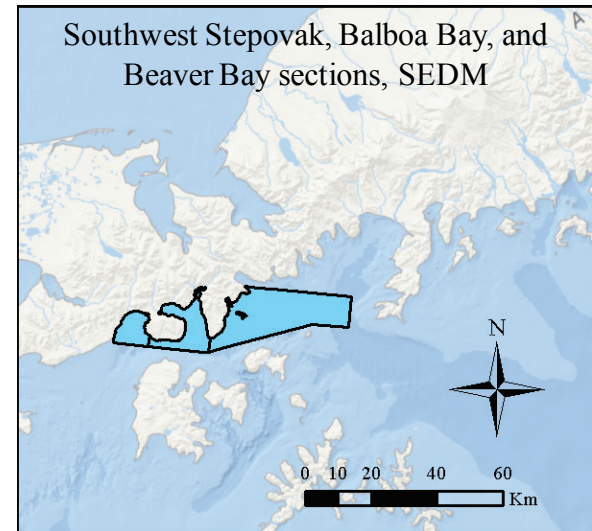
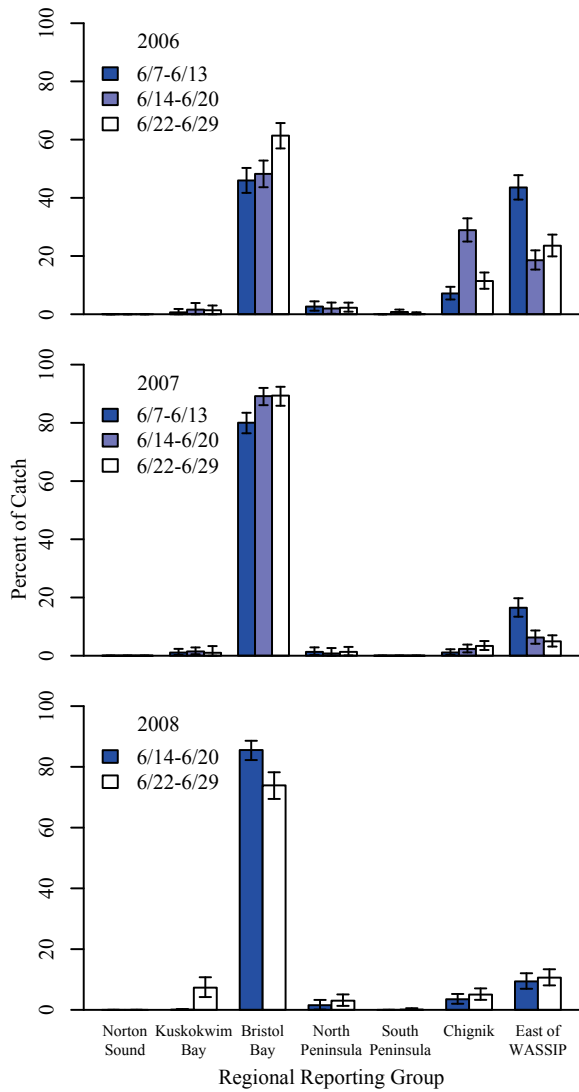


Figure 7.— Mean regional stock composition estimates (bars) and 90% credibility intervals (whiskers) by temporal stratum within years for sockeye salmon sampled from Southwest Stepovak, Balboa Bay, and Beaver Bay sections, Southeastern District Mainland area, Southeastern District, Alaska Peninsula Area, Westward Region (map) in 2006–2008 for the Western Alaska Salmon Stock Identification Project.





No subregional reporting groups.

No subregional reporting groups.

No subregional reporting groups.

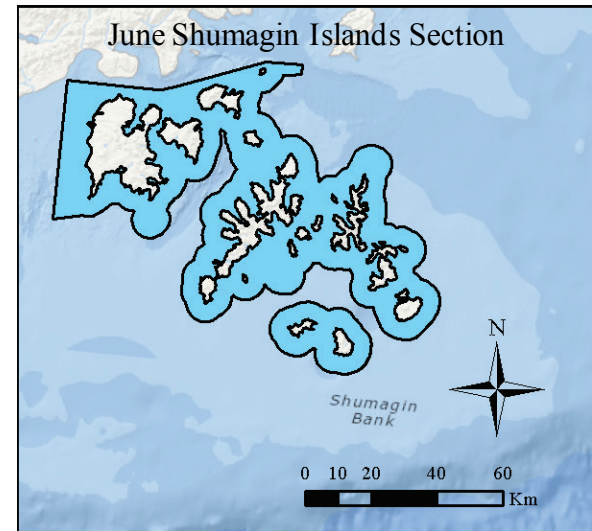
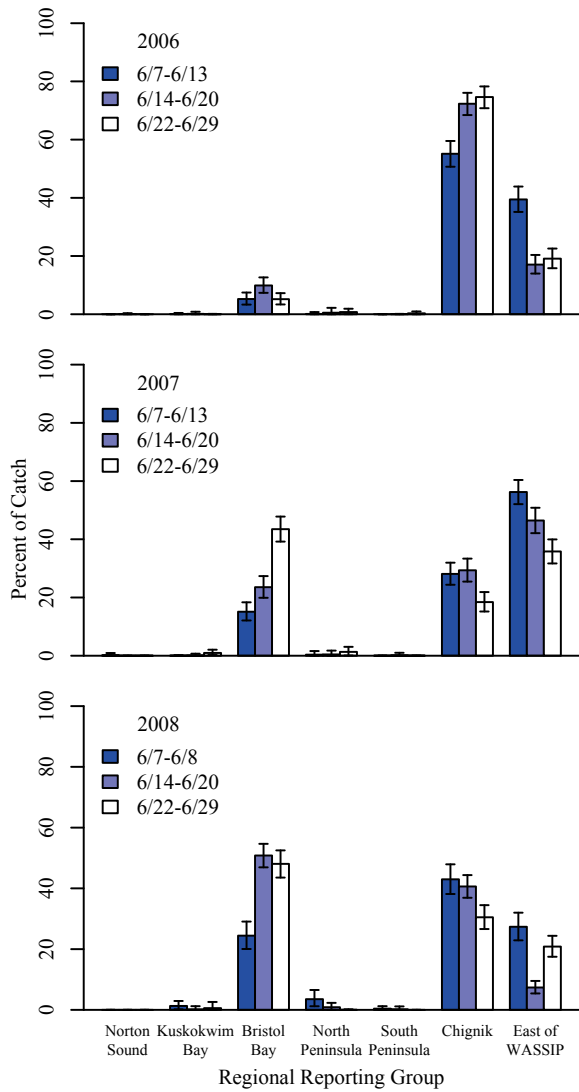


Figure 8.— Mean regional stock composition estimates (bars) and 90% credibility intervals (whiskers) by temporal stratum within years for sockeye salmon sampled from (June) Shumagin Islands Section, Southeastern District, Alaska Peninsula Area, Westward Region (map) in 2006–2008 for the Western Alaska Salmon Stock Identification Project.



No subregional reporting groups.

No subregional reporting groups.

No subregional reporting groups.

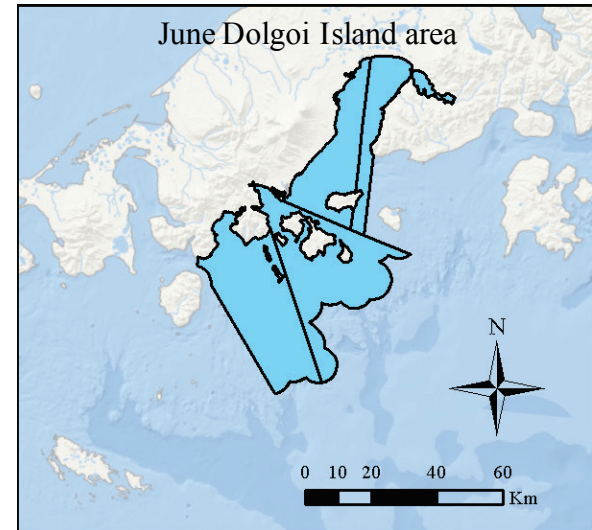
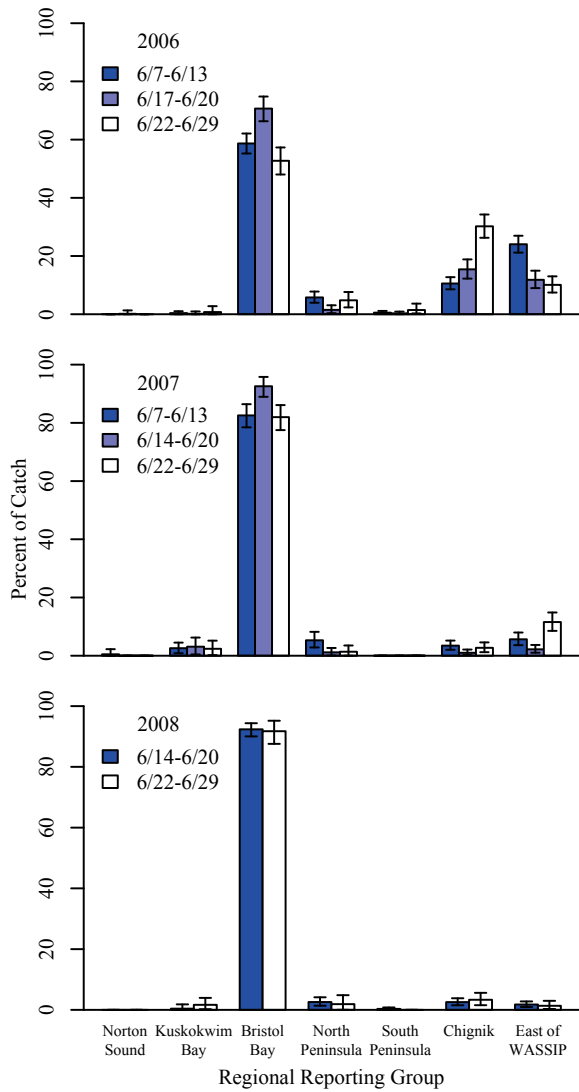


Figure 9.— Mean regional stock composition estimates (bars) and 90% credibility intervals (whiskers) by temporal stratum within years for sockeye salmon sampled from (June) Dolgoi Island area, Alaska Peninsula Area, Westward Region (map) in 2006–2008 for the Western Alaska Salmon Stock Identification Project.



No subregional reporting groups.

No subregional reporting groups.

No subregional reporting groups.

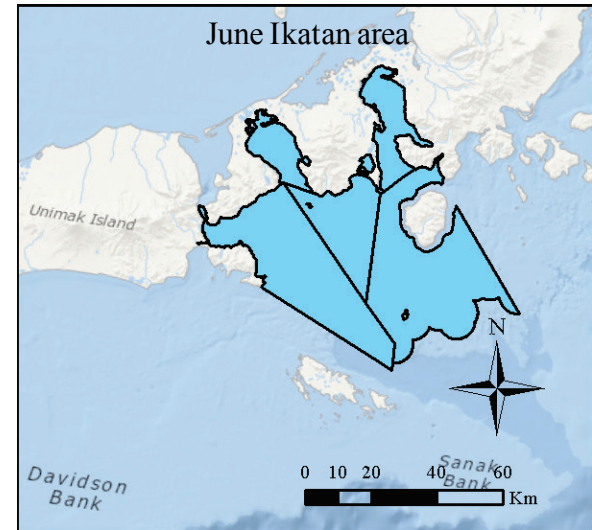
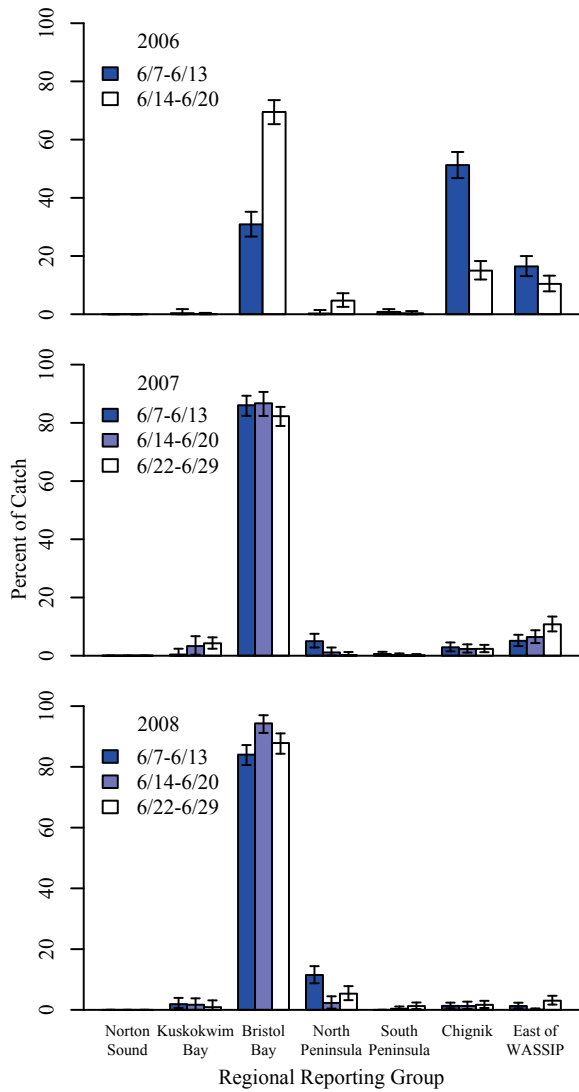


Figure 10.– Mean regional stock composition estimates (bars) and 90% credibility intervals (whiskers) by temporal stratum within years for sockeye salmon sampled from (June) Ikatán area, Alaska Peninsula Area, Westward Region (map) in 2006–2008 for the Western Alaska Salmon Stock Identification Project.



No subregional reporting groups.

No subregional reporting groups.

No subregional reporting groups.

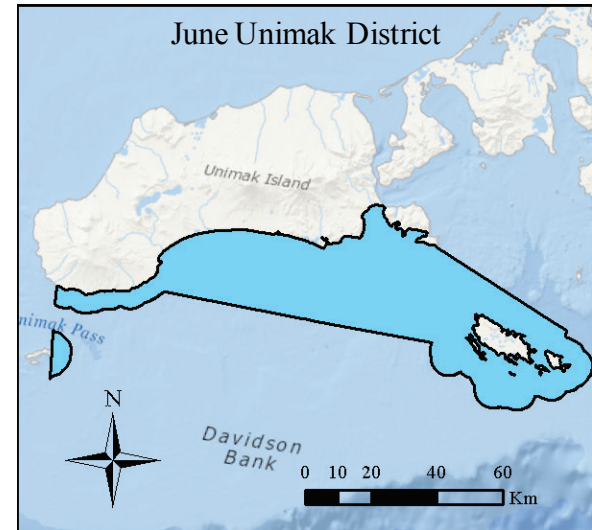
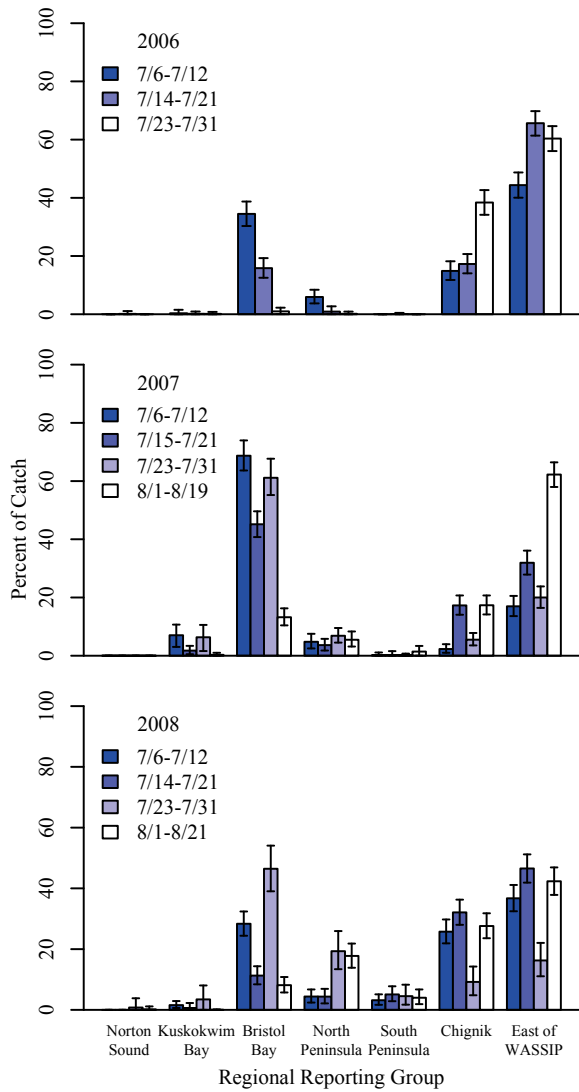


Figure 11.— Mean regional stock composition estimates (bars) and 90% credibility intervals (whiskers) by temporal stratum within years for sockeye salmon sampled from (June) Unimak District, Alaska Peninsula Area, Westward Region (map) in 2006–2008 for the Western Alaska Salmon Stock Identification Project.



No subregional reporting groups.

No subregional reporting groups.

No subregional reporting groups.

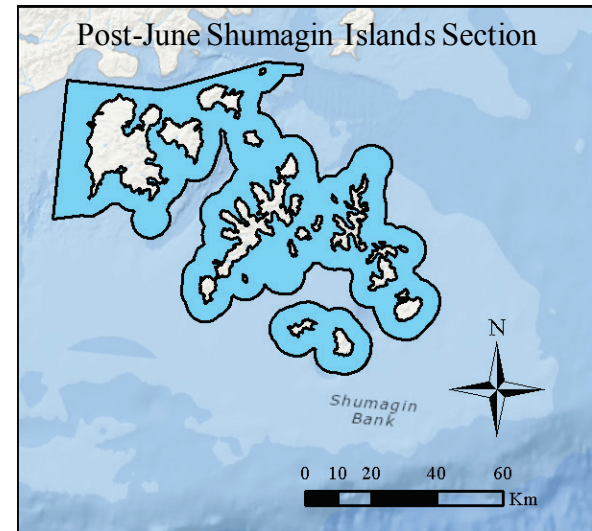
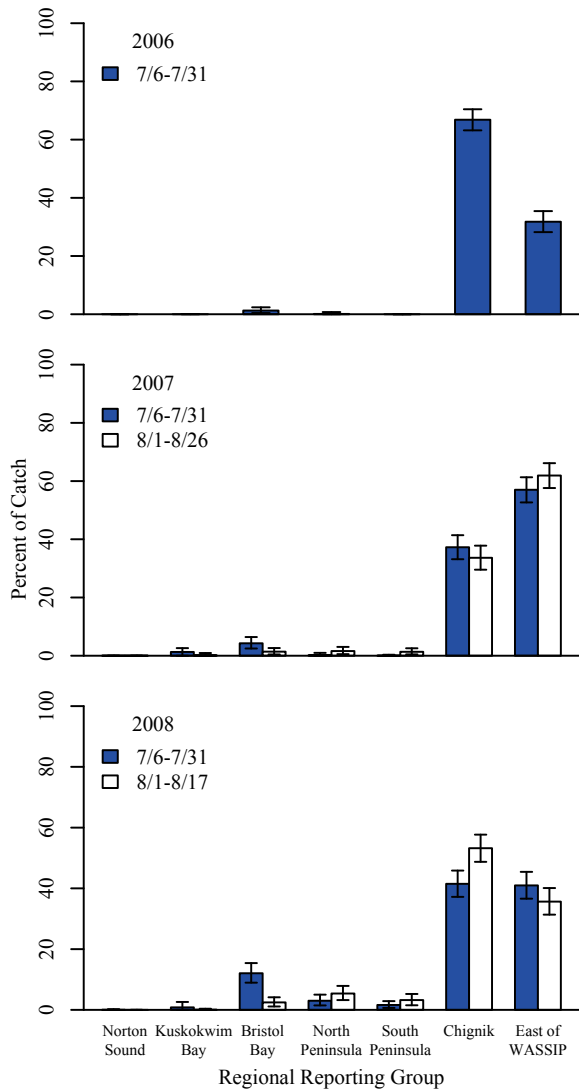


Figure 12.– Mean regional stock composition estimates (bars) and 90% credibility intervals (whiskers) by temporal stratum within years for sockeye salmon sampled from (post-June) Shumagin Islands Section, Southeastern District, Alaska Peninsula Area, Westward Region (map) in 2006–2008 for the Western Alaska Salmon Stock Identification Project.





No subregional reporting groups.

No subregional reporting groups.

No subregional reporting groups.

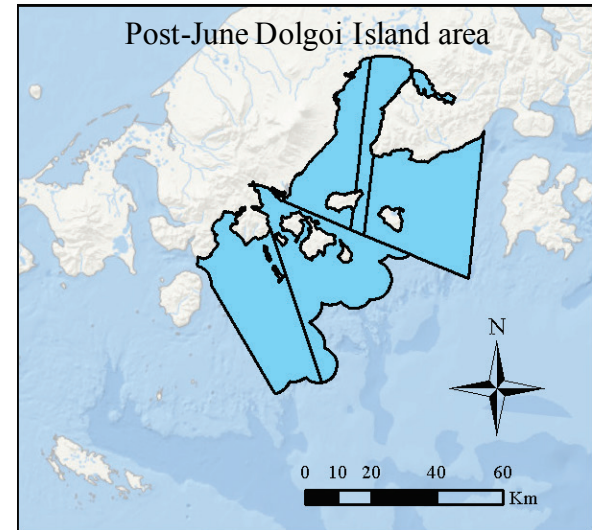
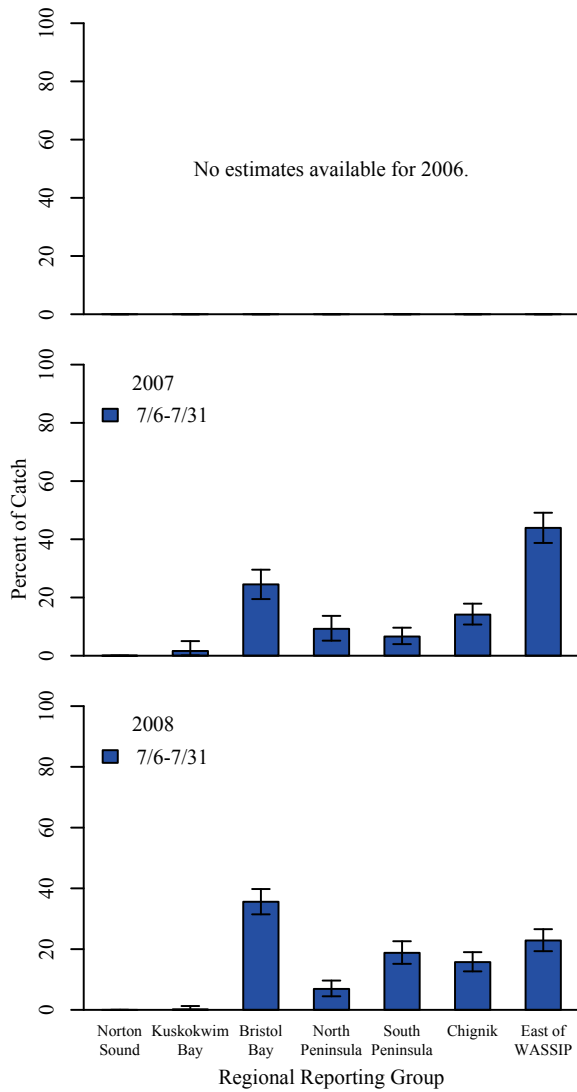


Figure 13.– Mean regional stock composition estimates (bars) and 90% credibility intervals (whiskers) by temporal stratum within years for sockeye salmon sampled from (post-June) Dolgoi Island area, Alaska Peninsula Area, Westward Region (map) in 2006–2008 for the Western Alaska Salmon Stock Identification Project.



No subregional reporting groups.

No subregional reporting groups.

No subregional reporting groups.

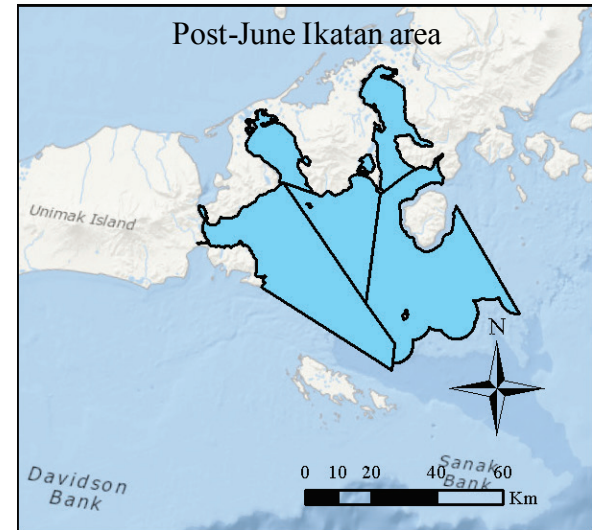


Figure 14.— Mean regional stock composition estimates (bars) and 90% credibility intervals (whiskers) by temporal stratum within years for sockeye salmon sampled from (post-June) Ikatan area, Alaska Peninsula Area, Westward Region (map) in 2006–2008 for the Western Alaska Salmon Stock Identification Project.

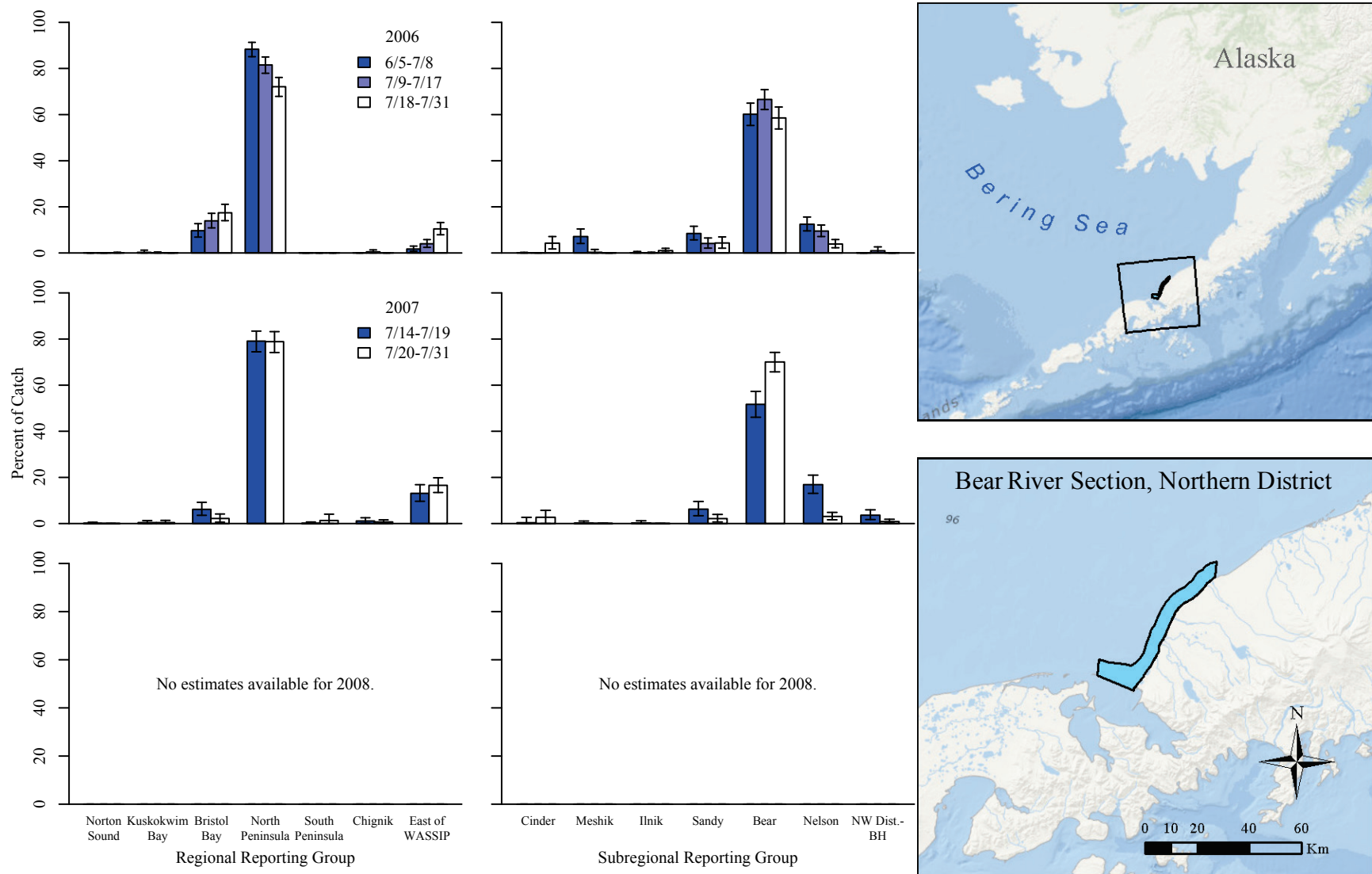


Figure 15.— Mean regional and subregional (within North Peninsula) stock composition estimates (bars) and 90% credibility intervals (whiskers) by temporal stratum within years for sockeye salmon sampled from Bear River Section, Northern District, Alaska Peninsula Area, Westward Region (map) in 2006–2008 for the Western Alaska Salmon Stock Identification Project.



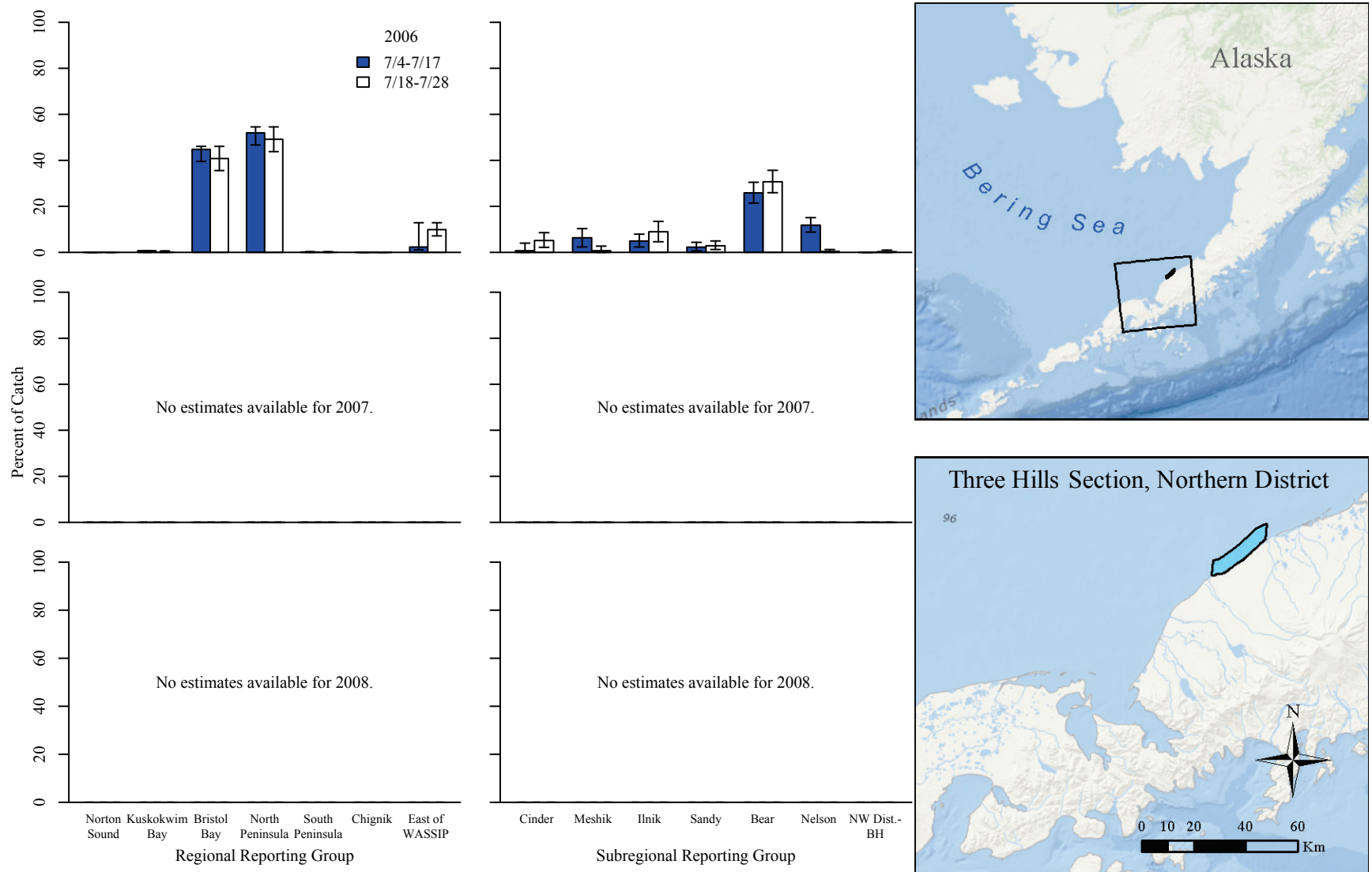


Figure 16.– Mean regional and subregional (within North Peninsula) stock composition estimates (bars) and 90% credibility intervals (whiskers) by temporal stratum within years for sockeye salmon sampled from Three Hills Section, Northern District, Alaska Peninsula Area, Westward Region (map) in 2006–2008 for the Western Alaska Salmon Stock Identification Project.

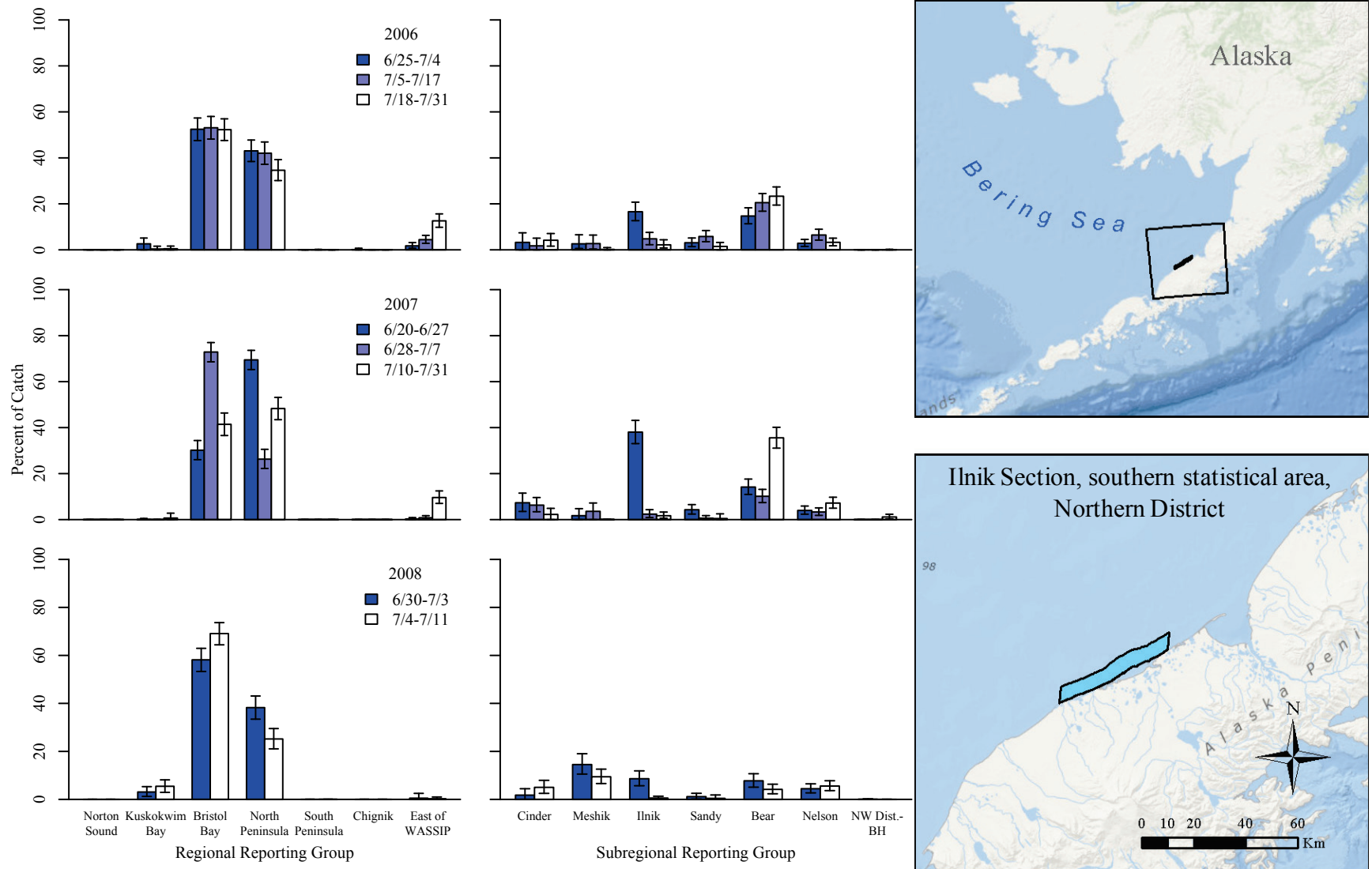


Figure 17.— Mean regional and subregional (within North Peninsula) stock composition estimates (bars) and 90% credibility intervals (whiskers) by temporal stratum within years for sockeye salmon sampled from Ilnik Section southern statistical area, Northern District, Alaska Peninsula Area, Westward Region (map) in 2006–2008 for the Western Alaska Salmon Stock Identification Project.

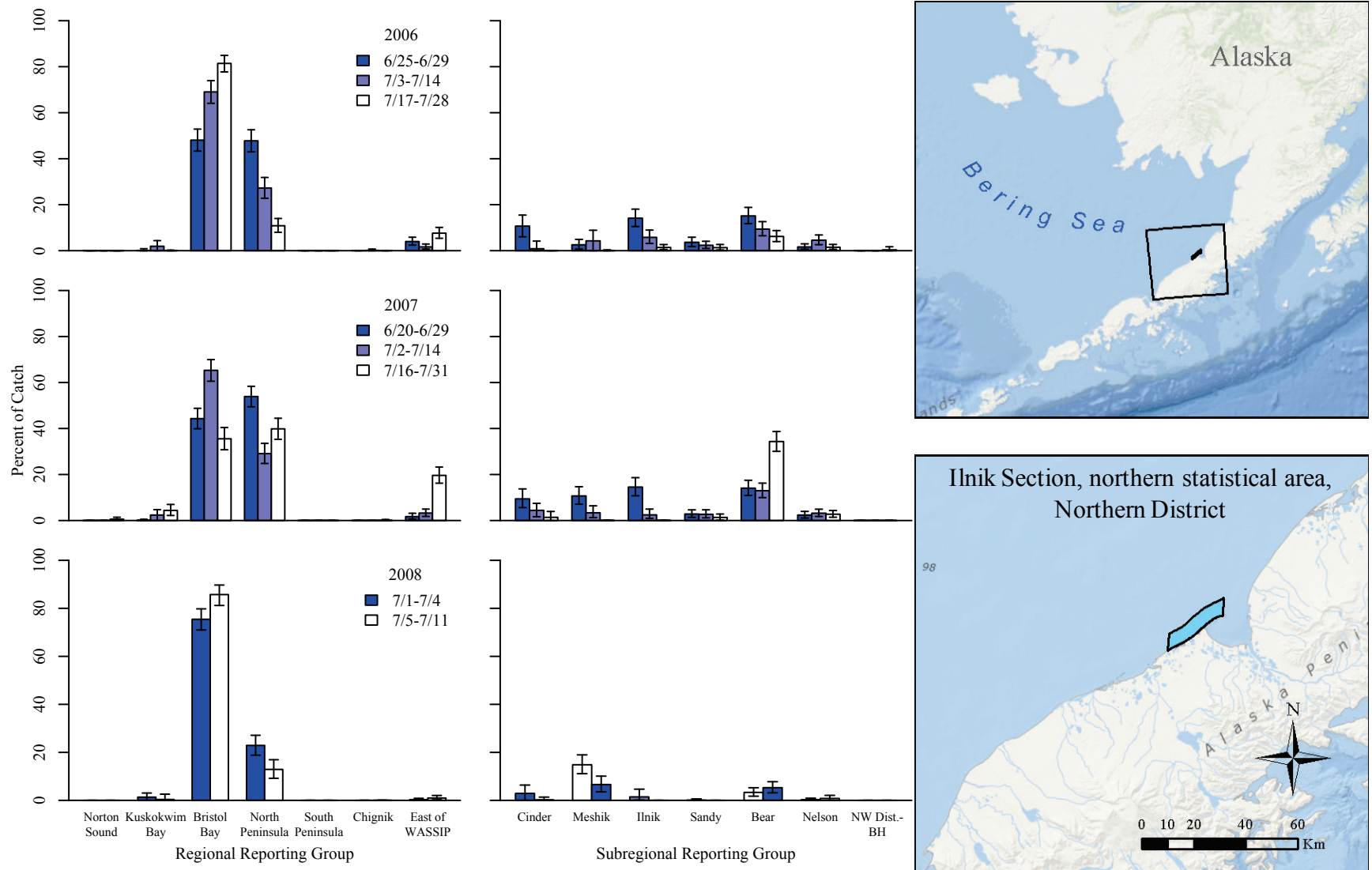


Figure 18.— Mean regional and subregional (within North Peninsula) stock composition estimates (bars) and 90% credibility intervals (whiskers) by temporal stratum within years for sockeye salmon sampled from Ilnik Section northern statistical area, Northern District, Alaska Peninsula Area, Westward Region (map) in 2006–2008 for the Western Alaska Salmon Stock Identification Project.

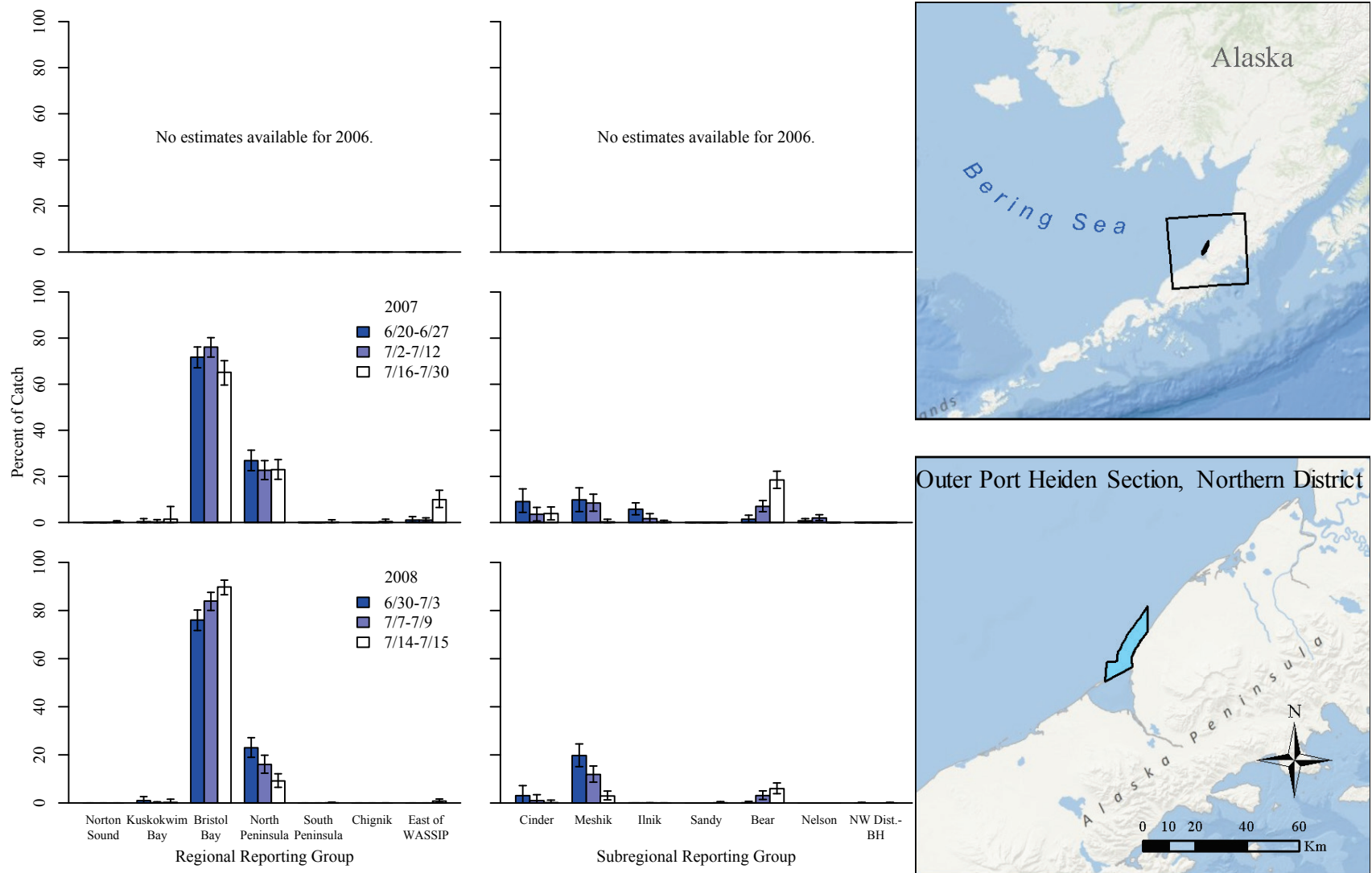


Figure 19.– Mean regional and subregional (within North Peninsula) stock composition estimates (bars) and 90% credibility intervals (whiskers) by temporal stratum within years for sockeye salmon sampled from Outer Port Heiden Section, Northern District, Alaska Peninsula Area, Westward Region (map) in 2006–2008 for the Western Alaska Salmon Stock Identification Project.

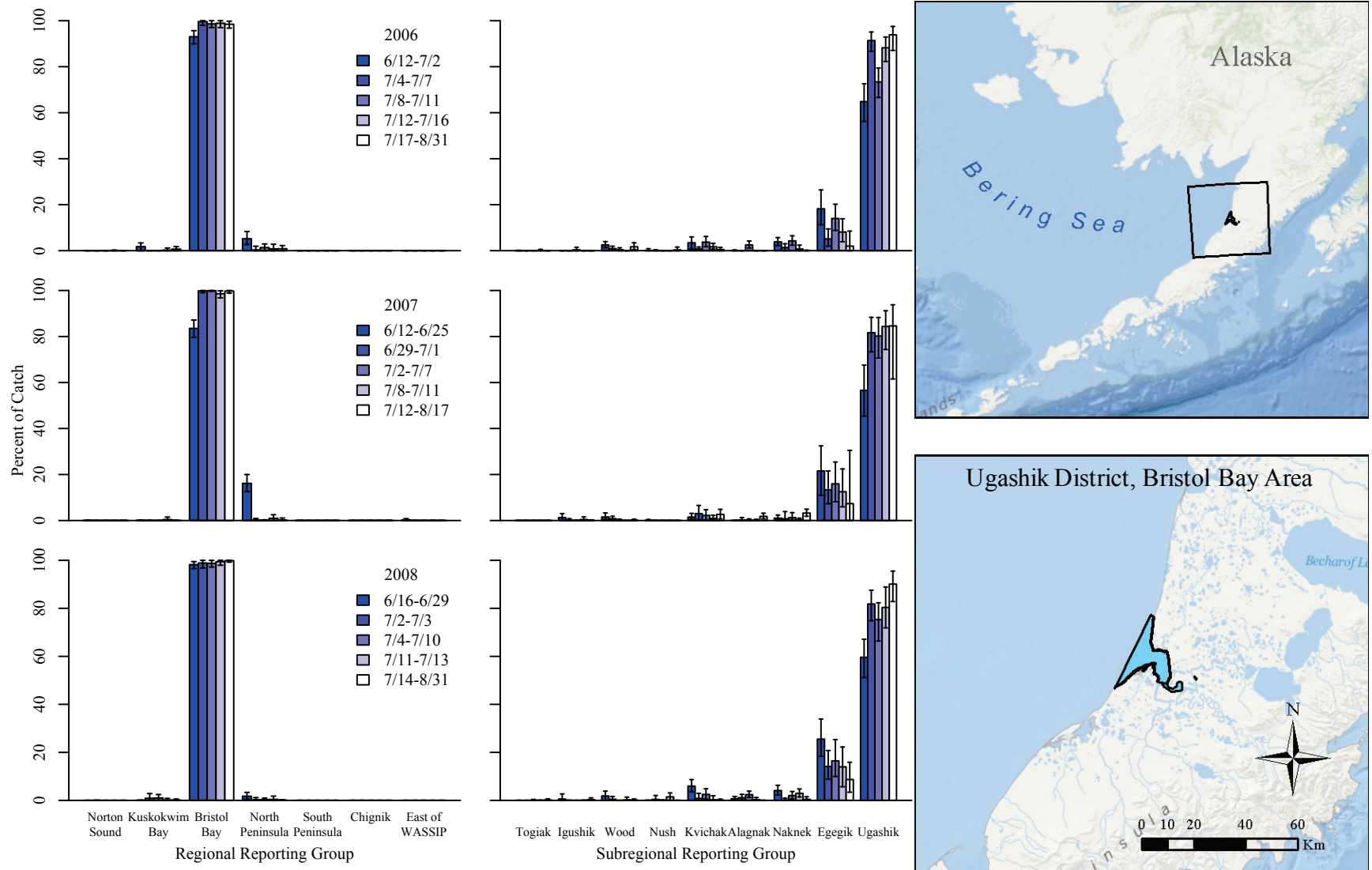


Figure 20.– Mean regional and subregional (within Bristol Bay) stock composition estimates (bars) and 90% credibility intervals (whiskers) by temporal stratum within years for sockeye salmon sampled from Ugashik District, Bristol Bay Area, Central Region (map) in 2006–2008 for the Western Alaska Salmon Stock Identification Project.



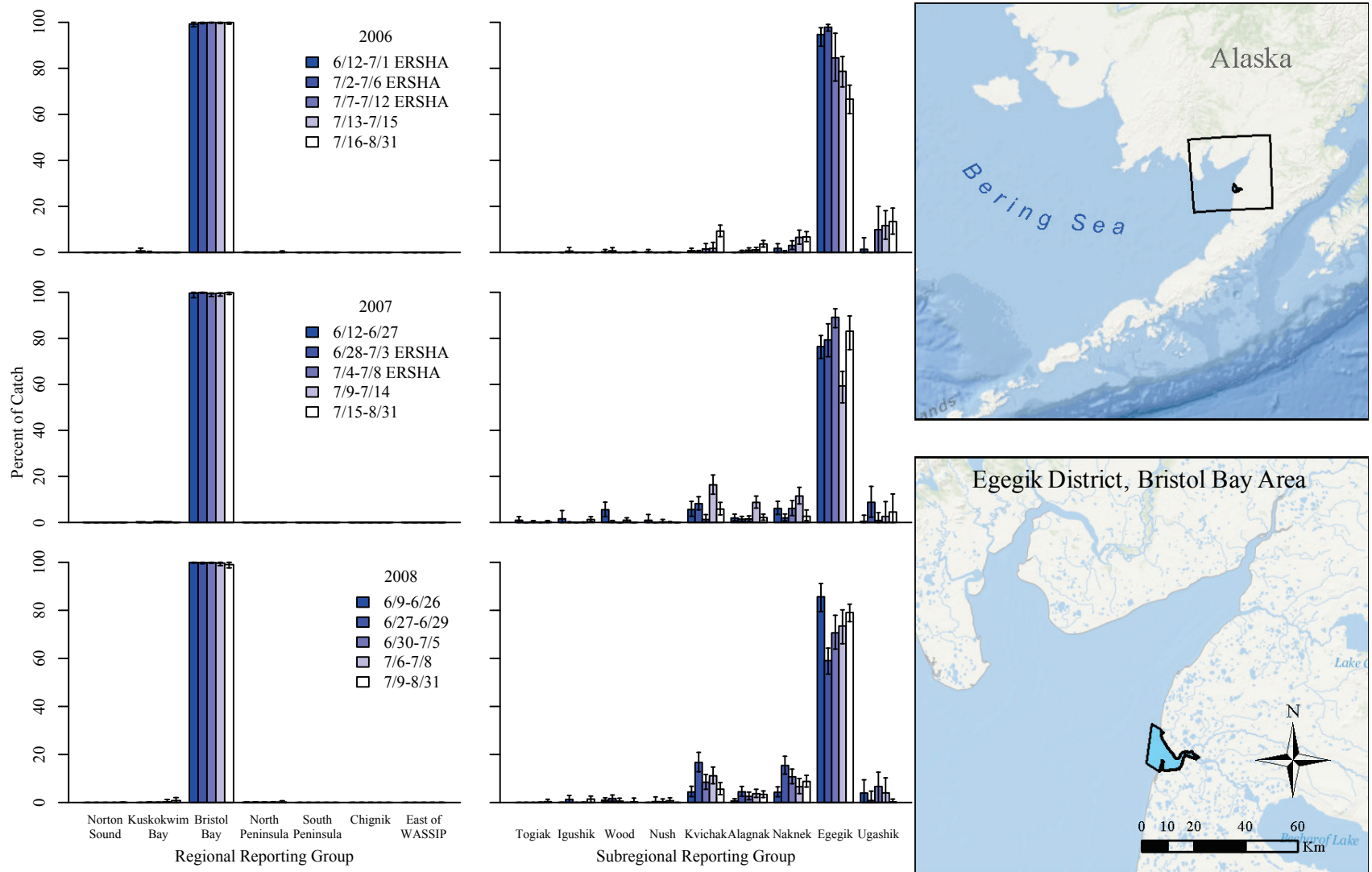


Figure 21.— Mean regional and subregional (within Bristol Bay) stock composition estimates (bars) and 90% credibility intervals (whiskers) by temporal stratum within years for sockeye salmon sampled from Egegik District, Bristol Bay Area, Central Region (map) in 2006–2008 for the Western Alaska Salmon Stock Identification Project. See Tables 64 and 66 and Eggers et al. (2011) for a description of fishery restrictions.

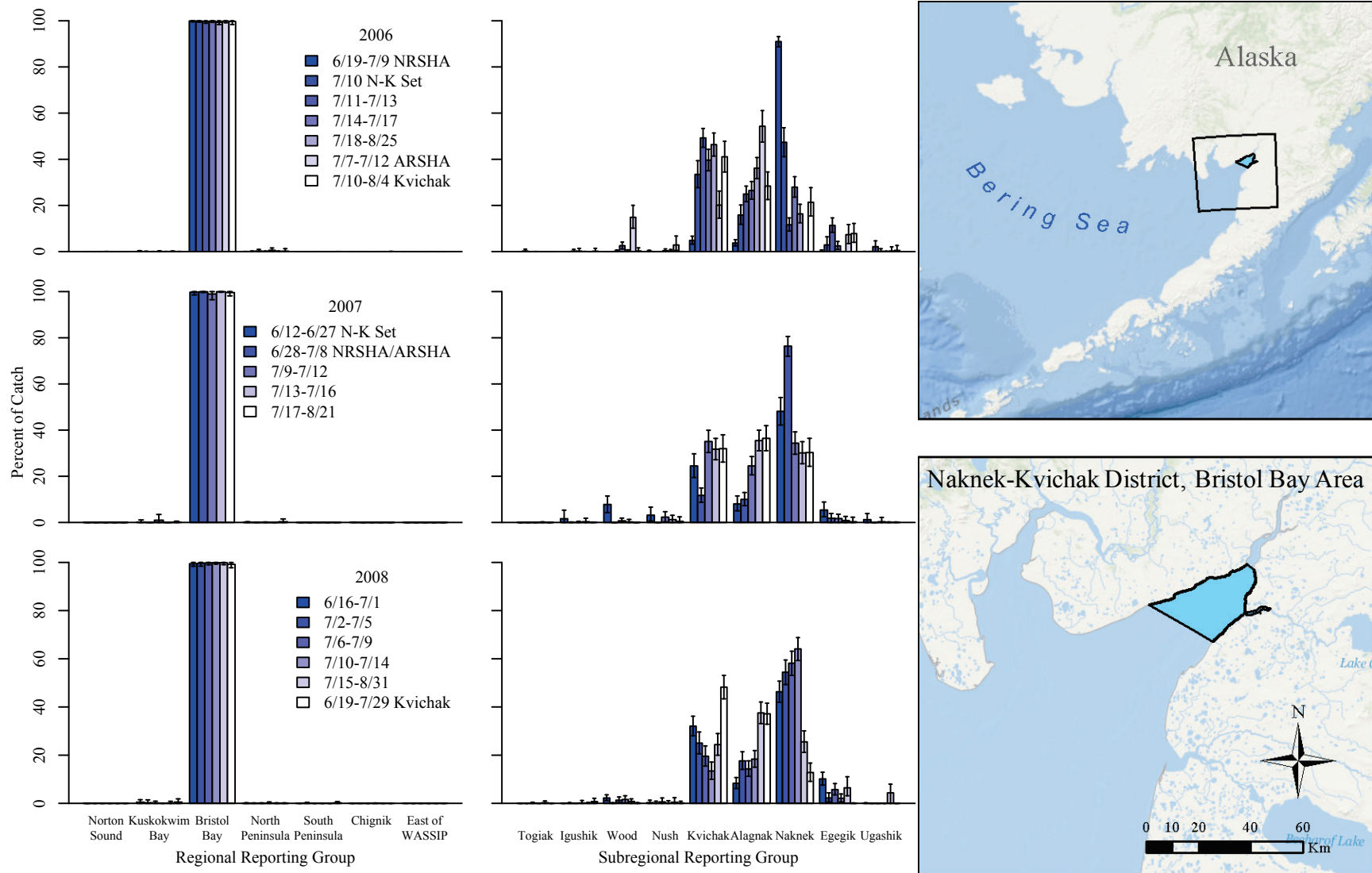


Figure 22.— Mean regional and subregional (within Bristol Bay) stock composition estimates (bars) and 90% credibility intervals (whiskers) by temporal stratum within years for sockeye salmon sampled from Naknek-Kvichak District, Bristol Bay Area, Central Region (map) in 2006–2008 for the Western Alaska Salmon Stock Identification Project. See Tables 70-73 and 75-76 and Eggers et al. (2011) for a description of fishery restrictions.

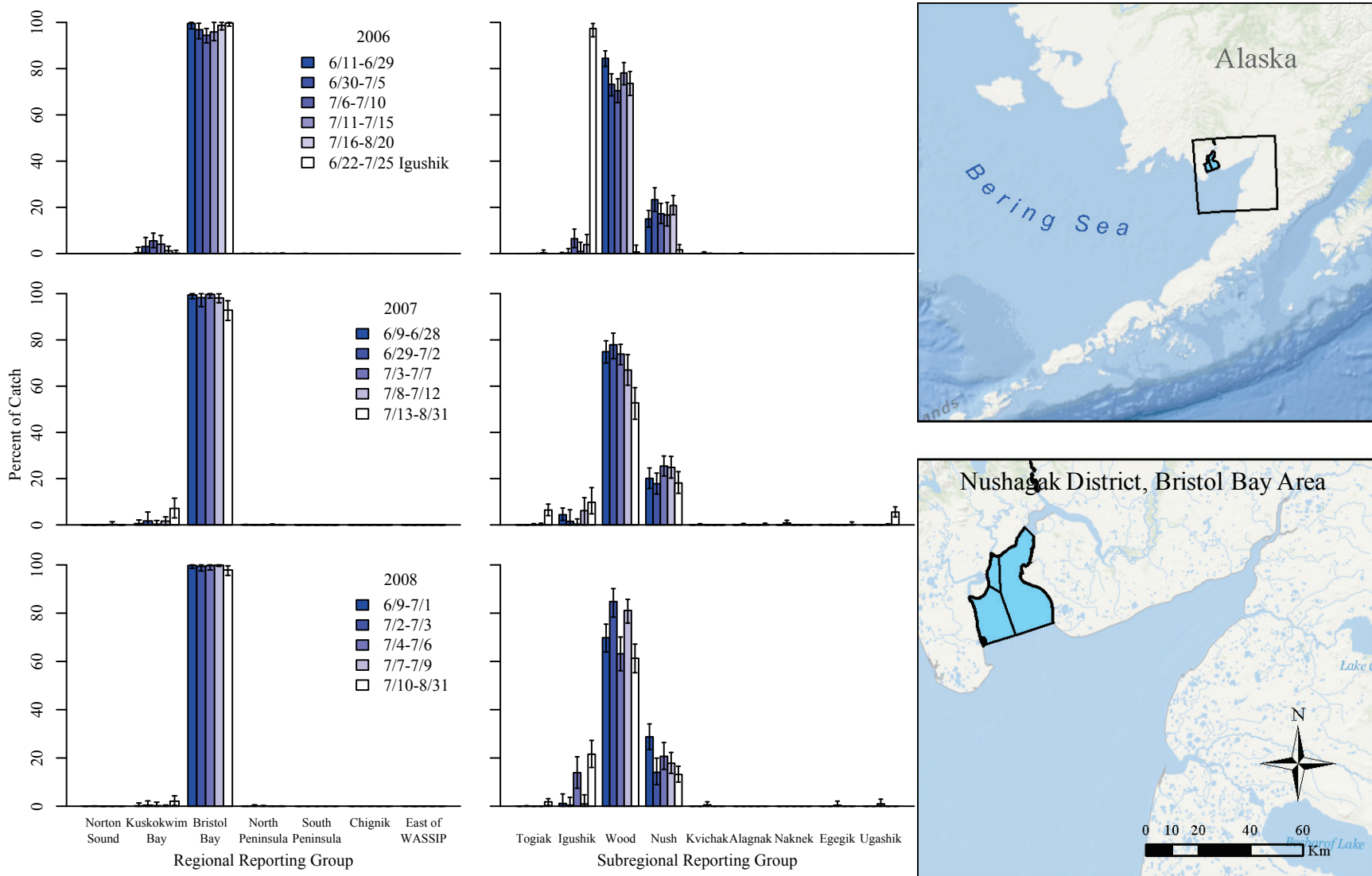


Figure 23.– Mean regional and subregional (within Bristol Bay) stock composition estimates (bars) and 90% credibility intervals (whiskers) by temporal stratum within years for sockeye salmon sampled from Nushagak District, Bristol Bay Area, Central Region (map) in 2006–2008 for the Western Alaska Salmon Stock Identification Project. See Table 78 and Eggers et al. (2011) for a description of fishery restrictions.



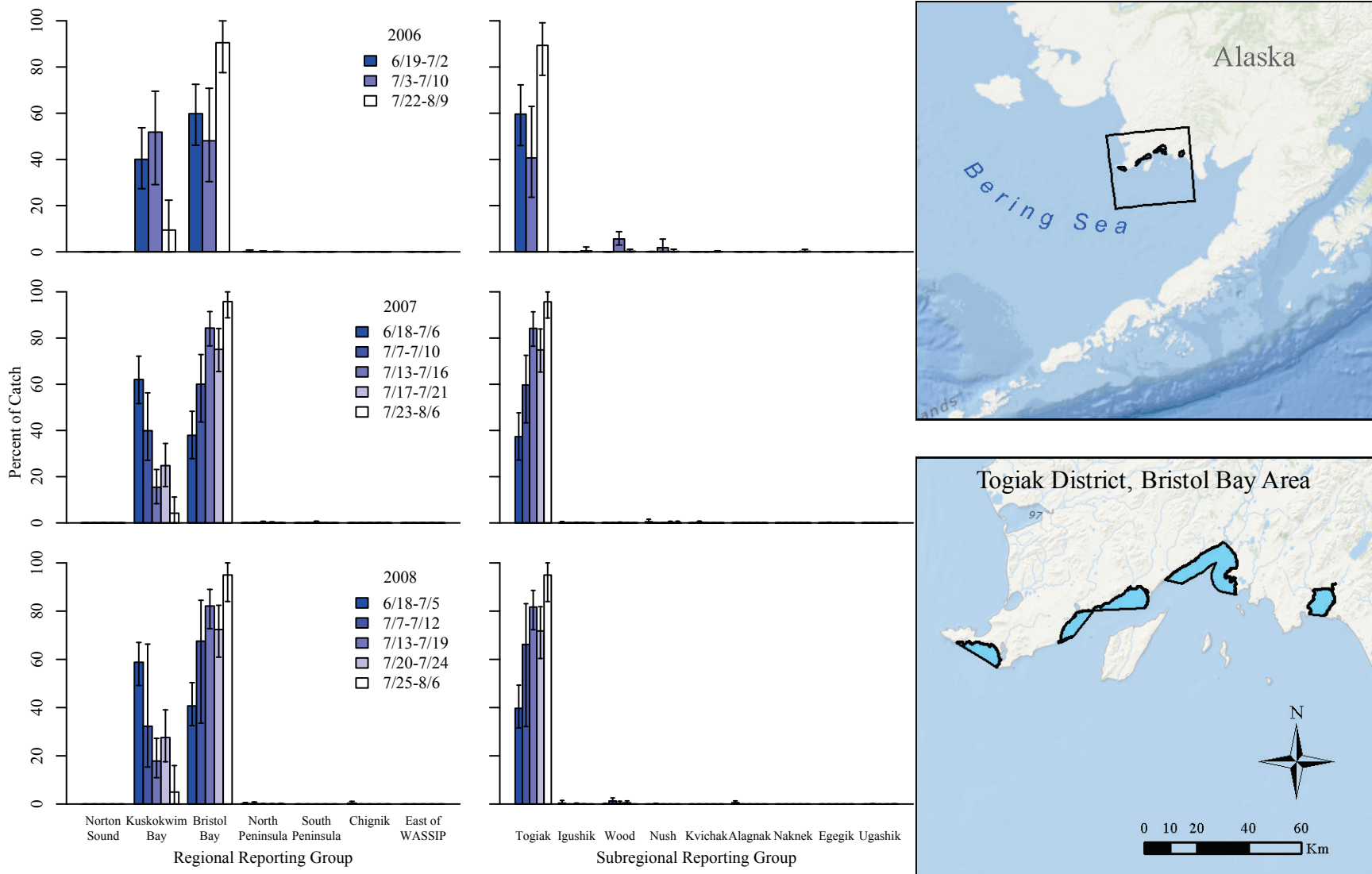


Figure 24.– Mean regional and subregional (within Bristol Bay) stock composition estimates (bars) and 90% credibility intervals (whiskers) by temporal stratum within years for sockeye salmon sampled from Togiak District, Bristol Bay Area, Central Region (map) in 2006–2008 for the Western Alaska Salmon Stock Identification Project.

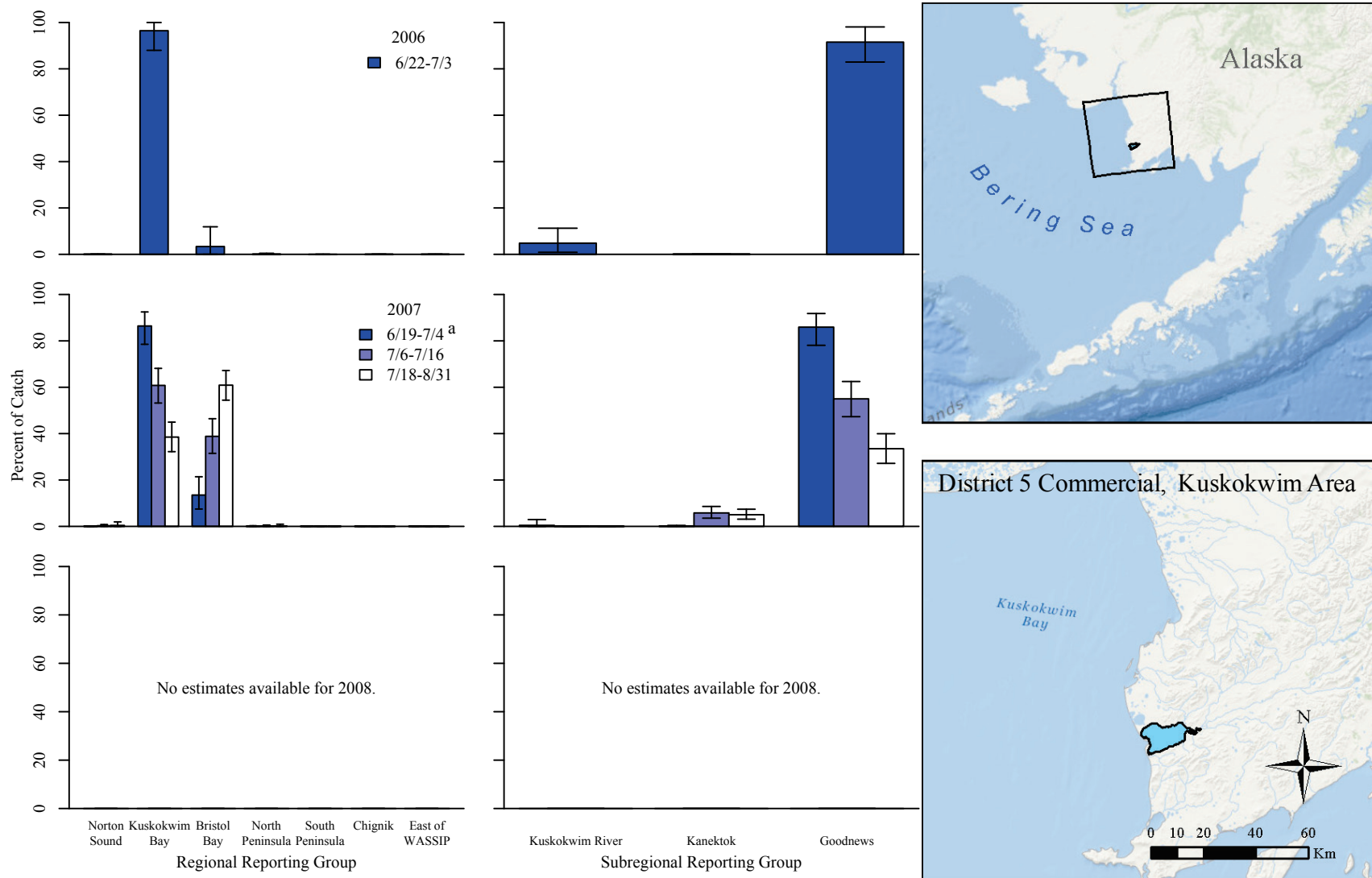


Figure 25.– Mean regional and subregional (within Kuskokwim Bay) stock composition estimates (bars) and 90% credibility intervals (whiskers) by temporal stratum within years for sockeye salmon sampled from District 5 Commercial, Kuskokwim Area, Arctic-Yukon-Kuskokwim Region (map) in 2006–2008 for the Western Alaska Salmon Stock Identification Project.

<sup>a</sup> Estimates for this stratum are based upon 3 80,000-iteration chains following reanalysis with *HWLER*.

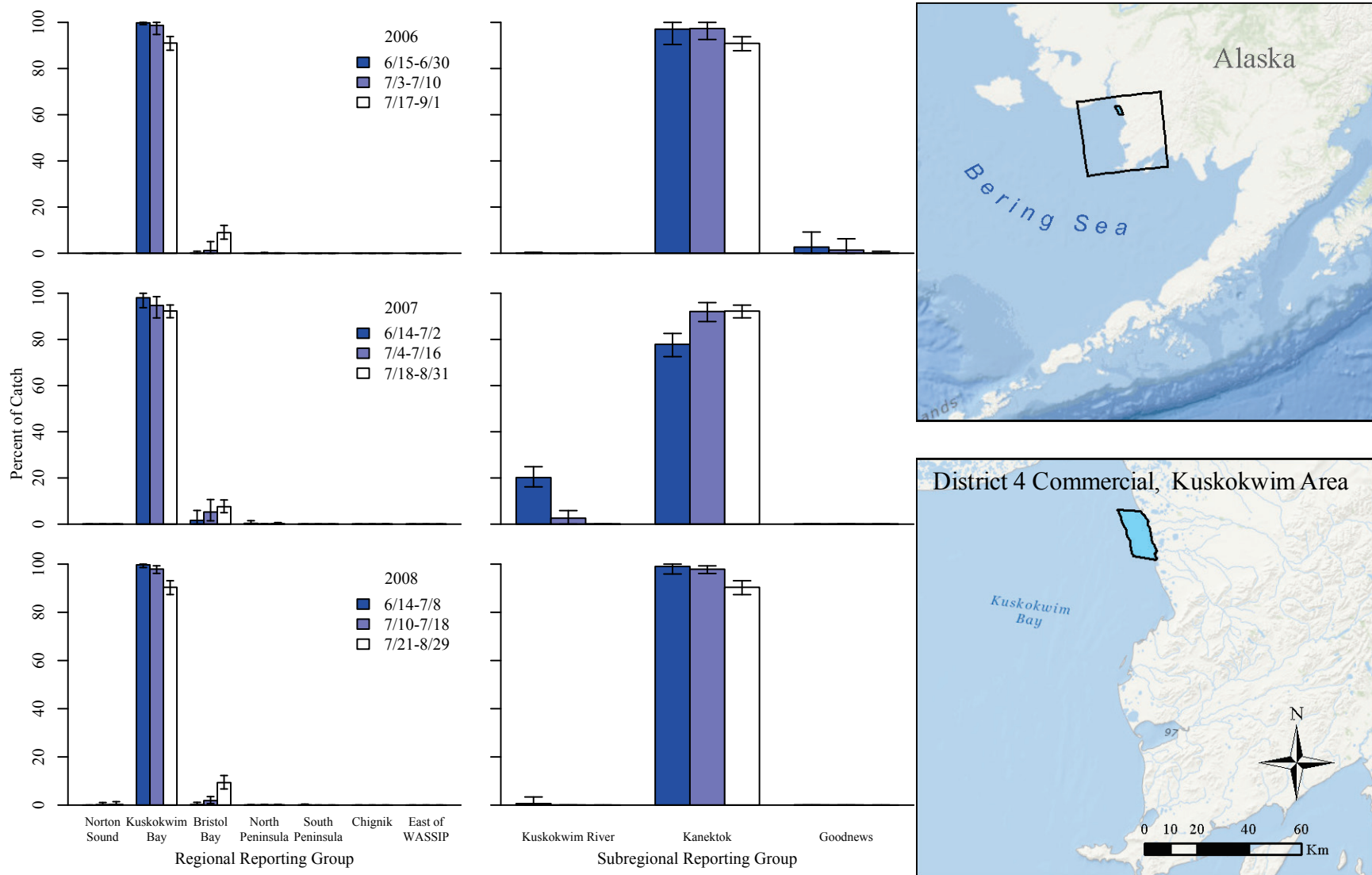


Figure 26.– Mean regional and subregional (within Kuskokwim Bay) stock composition estimates (bars) and 90% credibility intervals (whiskers) by temporal stratum within years for sockeye salmon sampled from District 4 Commercial, Kuskokwim Area, Arctic-Yukon-Kuskokwim Region (map) in 2006–2008 for the Western Alaska Salmon Stock Identification Project.



**APPENDIX A: RESULTS OF STATISTICAL QUALITY  
CONTROL OF ANALYZED AREA-TEMPORAL STRATA**

Appendix A1.—Results of the statistical quality control by area-temporal strata for sockeye salmon catch samples analyzed in the Western Alaska Salmon Stock Identification Program. Area-temporal strata are identified by the fishery, area stratum, year, temporal stratum, and stratum period. The number of fish originally selected for analysis (Eggers et al. 2011); the number eventually genotyped; and of these, the number of fish excluded from statistical analysis because of missing loci, alternate species and duplicate fish; and the final number statistically analyzed are provided.

Fishery	Area stratum	Year	Temporal stratum	Period	Number of fish					
					Selected	Genotyped	Fish Removed			Final
							Missing Loci	Alternate Species	Duplicate	
Chignik	Central District	2006	1	6/16–6/17	400	400	2	0	1	397
Chignik	Central District	2006	2	6/26–6/30	400	388	5	1	0	382
Chignik	Central District	2006	3	7/02–7/11	400	390	8	0	8	374
Chignik	Central District	2006	4	7/13–7/28	400	400	13	0	1	386
Chignik	Central District	2007	1	6/15–6/17	400	396	1	0	0	395
Chignik	Central District	2007	2	6/25–7/02	400	397	2	0	0	395
Chignik	Central District	2007	3	7/03–7/16	400	399	3	0	0	396
Chignik	Central District	2007	4	7/20–7/31	400	399	2	0	0	397
Chignik	Central District	2008	1	6/24–6/25	400	386	3	0	1	382
Chignik	Central District	2008	2	6/26–7/01	200	194	4	0	0	190
Chignik	Central District	2008	3	7/04–7/10	400	399	3	0	0	396
Chignik	Central District	2008	4	7/18–7/31	400	452	19	0	0	433
Chignik	Chignik Bay District	2006	1	6/08–6/19	400	400	0	0	0	400
Chignik	Chignik Bay District	2006	2	6/25–6/28	400	400	1	0	0	399
Chignik	Chignik Bay District	2006	3	6/29–7/04	400	399	20	0	0	379
Chignik	Chignik Bay District	2006	4	7/05–7/10	400	400	1	0	0	399
Chignik	Chignik Bay District	2006	5	7/11–7/19	400	399	1	0	0	398
Chignik	Chignik Bay District	2006	6	7/21–7/31	400	400	2	0	0	398
Chignik	Chignik Bay District	2007	1	6/09–6/19	400	400	3	0	0	397
Chignik	Chignik Bay District	2007	2	6/22–6/26	400	400	1	0	1	398
Chignik	Chignik Bay District	2007	3	6/28–7/04	400	400	3	0	0	397
Chignik	Chignik Bay District	2007	4	7/05–7/11	400	400	0	0	0	400
Chignik	Chignik Bay District	2007	5	7/12–7/16	400	400	2	0	2	396

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Fishery	Area stratum	Year	Temporal stratum	Period	Number of fish						
					Selected	Genotyped	Fish Removed			Final	
							Missing Loci	Alternate Species	Duplicate		
Chignik	Chignik Bay District	2007	6	7/20–7/31	400	400	1	0	0	399	
Chignik	Chignik Bay District	2008	1	6/09–6/25	400	400	2	0	0	398	
Chignik	Chignik Bay District	2008	2	6/26–7/01	400	400	2	0	1	397	
Chignik	Chignik Bay District	2008	3	7/04–7/05	400	400	3	0	0	397	
Chignik	Chignik Bay District	2008	4	7/06–7/10	400	400	0	0	0	400	
Chignik	Chignik Bay District	2008	6	7/18–7/31	400	400	3	0	0	397	
Chignik	Western and Perryville districts	2006	2	7/11–7/16	400	378	3	1	5	369	
Chignik	Western and Perryville districts	2006	3	7/20–7/28	400	400	65	0	5	330	
Chignik	Western and Perryville districts	2007	2	7/09–7/15	400	400	1	0	0	399	
Chignik	Western and Perryville districts	2007	3	7/20–7/31	400	400	1	0	0	399	
Chignik	Western and Perryville districts	2008	1	6/24–6/30	400	398	1	1	0	396	
Chignik	Western and Perryville districts	2008	2	7/05–7/09	177	177	3	0	1	173	
Chignik	Western and Perryville districts	2008	3	7/21–7/31	400	530	4	0	0	526	
SEDM post-June	East Stepovak and Stepovak Flats sections	2006	2	7/20–7/21	400	400	0	1	0	399	
SEDM post-June	East Stepovak and Stepovak Flats sections	2006	3	7/26–8/23	300	300	1	0	1	298	
SEDM post-June	East Stepovak and Stepovak Flats sections	2007	3	8/01–8/20	401	400	6	0	0	394	
SEDM post-June	East Stepovak and Stepovak Flats sections	2008	3	7/26–8/20	400	400	2	0	0	398	
SEDM post-June	Northwest Stepovak Section	2008	1	7/03–7/05	200	200	1	0	0	199	
SEDM post-June	Northwest Stepovak Section	2008	2	7/07–7/25	400	397	7	0	0	390	
SEDM post-June	Northwest Stepovak Section	2008	3	7/26–8/20	400	387	2	0	0	385	
SEDM post-June	Southwest Stepovak, Balboa Bay, and Beaver Bay sections	2006	2	7/20–7/21	400	399	0	0	0	399	

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Fishery	Area stratum	Year	Temporal stratum	Period	Number of fish					
					Selected	Genotyped	Fish Removed			Final
							Missing Loci	Alternate Species	Duplicate	
SEDM post-June	Southwest Stepovak, Balboa Bay, and Beaver Bay sections	2006	3	7/26–8/23	300	298	1	0	0	297
SEDM post-June	Southwest Stepovak, Balboa Bay, and Beaver Bay sections	2007	3	8/01–8/20	400	400	1	0	0	399
SEDM post-June	Southwest Stepovak, Balboa Bay, and Beaver Bay sections	2008	3	7/26–8/20	400	401	3	0	0	398
South Peninsula June	Shumagin Islands Section	2006	1	6/07–6/13	400	400	0	0	0	400
South Peninsula June	Shumagin Islands Section	2006	2	6/14–6/20	400	399	0	0	0	399
South Peninsula June	Shumagin Islands Section	2006	3	6/22–6/29	400	397	1	0	0	396
South Peninsula June	Shumagin Islands Section	2007	1	6/07–6/13	400	400	1	0	0	399
South Peninsula June	Shumagin Islands Section	2007	2	6/14–6/20	400	400	3	0	0	397
South Peninsula June	Shumagin Islands Section	2007	3	6/22–6/29	400	400	5	0	0	395
South Peninsula June	Shumagin Islands Section	2008	2	6/14–6/20	400	400	7	0	0	393
South Peninsula June	Shumagin Islands Section	2008	3	6/22–6/29	400	399	0	0	0	399
South Peninsula June	Dolgoi Island area	2006	1	6/07–6/13	365	365	2	0	0	363
South Peninsula June	Dolgoi Island area	2006	2	6/14–6/20	400	400	5	0	0	395
South Peninsula June	Dolgoi Island area	2006	3	6/22–6/29	400	396	8	0	0	388
South Peninsula June	Dolgoi Island area	2007	1	6/07–6/13	400	426	4	0	0	422
South Peninsula June	Dolgoi Island area	2007	2	6/14–6/20	400	400	3	0	0	397
South Peninsula June	Dolgoi Island area	2007	3	6/22–6/29	400	400	5	0	0	395

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Fishery	Area stratum	Year	Temporal stratum	Period	Number of fish					
					Selected	Genotyped	Fish Removed			Final
							Missing Loci	Alternate Species	Duplicate	
South Peninsula June	Dolgoi Island area	2008	1	6/07–6/08	311	309	4	0	1	304
South Peninsula June	Dolgoi Island area	2008	2	6/14–6/20	400	511	7	0	0	504
South Peninsula June	Dolgoi Island area	2008	3	6/22–6/29	400	399	5	0	1	393
South Peninsula June	Ikatan area	2006	1	6/07–6/13	400	643	4	0	0	639
South Peninsula June	Ikatan area	2006	2	6/17–6/20	343	343	4	0	0	339
South Peninsula June	Ikatan area	2006	3	6/22–6/29	400	399	5	0	0	394
South Peninsula June	Ikatan area	2007	1	6/07–6/13	401	401	4	0	0	397
South Peninsula June	Ikatan area	2007	2	6/14–6/20	372	372	2	0	0	370
South Peninsula June	Ikatan area	2007	3	6/22–6/29	328	328	2	0	0	326
South Peninsula June	Ikatan area	2008	2	6/14–6/20	400	602	5	0	0	597
South Peninsula June	Ikatan area	2008	3	6/22–6/29	222	219	1	0	0	218
South Peninsula June	Unimak District	2006	1	6/07–6/13	374	374	10	0	0	364
South Peninsula June	Unimak District	2006	2	6/14–6/20	400	392	17	0	0	375
South Peninsula June	Unimak District	2007	1	6/07–6/13	400	400	3	0	0	397
South Peninsula June	Unimak District	2007	2	6/14–6/20	400	400	20	0	0	380
South Peninsula June	Unimak District	2007	3	6/22–6/29	400	447	1	0	0	446
South Peninsula June	Unimak District	2008	1	6/07–6/13	400	479	2	0	0	477

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Fishery	Area stratum	Year	Temporal stratum	Period	Number of fish					
					Selected	Genotyped	Fish Removed			Final
							Missing Loci	Alternate Species	Duplicate	
South Peninsula June	Unimak District	2008	2	6/14–6/20	270	270	1	0	0	269
South Peninsula June	Unimak District	2008	3	6/22–6/29	400	399	5	1	0	393
South Peninsula post-June	Shumagin Islands Section	2006	1	7/06–7/12	400	397	0	0	0	397
South Peninsula post-June	Shumagin Islands Section	2006	2	7/14–7/21	400	407	1	0	0	406
South Peninsula post-June	Shumagin Islands Section	2006	3	7/23–7/31	400	400	4	0	0	396
South Peninsula post-June	Shumagin Islands Section	2007	1	7/06–7/12	399	382	16	1	0	365
South Peninsula post-June	Shumagin Islands Section	2007	2	7/15–7/21	400	397	1	0	0	396
South Peninsula post-June	Shumagin Islands Section	2007	3	7/23–7/31	400	398	2	0	0	396
South Peninsula post-June	Shumagin Islands Section	2007	4	8/01–8/19	400	437	6	0	0	431
South Peninsula post-June	Shumagin Islands Section	2008	1	7/06–7/12	399	399	5	0	0	394
South Peninsula post-June	Shumagin Islands Section	2008	2	7/14–7/21	400	403	6	0	1	396
South Peninsula post-June	Shumagin Islands Section	2008	3	7/23–7/31	150	150	1	0	0	149
South Peninsula post-June	Shumagin Islands Section	2008	4	8/01–8/21	400	376	5	0	0	371
South Peninsula post-June	Dolgoi Island area	2006	1	7/06–7/31	400	494	5	2	0	487
South Peninsula post-June	Dolgoi Island area	2007	1	7/06–7/31	400	401	4	0	0	397
South Peninsula post-June	Dolgoi Island area	2007	2	8/01–8/26	400	393	2	0	0	391
South Peninsula post-June	Dolgoi Island area	2008	1	7/06–7/31	400	398	14	0	0	384

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Fishery	Area stratum	Year	Temporal stratum	Period	Number of fish					
					Selected	Genotyped	Fish Removed			Final
							Missing Loci	Alternate Species	Duplicate	
South Peninsula post-June	Dolgoi Island area	2008	2	8/01–8/17	401	391	1	0	0	390
South Peninsula post-June	Ikatan area	2007	1	7/06–7/31	300	300	4	0	0	296
South Peninsula post-June	Ikatan area	2008	1	7/06–7/31	400	419	10	0	0	409
North Peninsula	Bear River Section	2006	1	6/05–7/08	400	399	15	0	0	384
North Peninsula	Bear River Section	2006	2	7/09–7/17	400	444	2	0	40	402
North Peninsula	Bear River Section	2006	3	7/18–7/31	400	399	1	0	0	398
North Peninsula	Bear River Section	2007	2	7/14–7/19	313	275	1	0	3	271
North Peninsula	Bear River Section	2007	3	7/20–7/31	390	396	3	0	0	393
North Peninsula	Three Hills Section	2006	2	7/14–7/17	339	337	5	0	0	332
North Peninsula	Three Hills Section	2006	3	7/18–7/28	323	321	1	0	0	320
North Peninsula	Ilnik Section southern statistical area	2006	1	6/25–7/04	400	392	0	0	0	392
North Peninsula	Ilnik Section southern statistical area	2006	2	7/05–7/17	400	395	0	0	0	395
North Peninsula	Ilnik Section southern statistical area	2006	3	7/18–7/31	400	397	0	0	0	397
North Peninsula	Ilnik Section southern statistical area	2007	1	6/20–6/27	400	394	0	0	0	394
North Peninsula	Ilnik Section southern statistical area	2007	2	6/28–7/07	400	397	0	1	0	396
North Peninsula	Ilnik Section southern statistical area	2007	3	7/10–7/31	387	354	0	0	0	354
North Peninsula	Ilnik Section southern statistical area	2008	1	6/30–7/03	400	384	0	0	0	384
North Peninsula	Ilnik Section southern statistical area	2008	2	7/04–7/11	400	393	0	0	0	393
North Peninsula	Ilnik Section northern statistical area	2006	1	6/25–6/29	400	398	4	1	1	392
North Peninsula	Ilnik Section northern statistical area	2006	2	7/03–7/14	400	399	6	1	0	392

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Fishery	Area stratum	Year	Temporal stratum	Period	Number of fish					
					Selected	Genotyped	Fish Removed			Final
							Missing Loci	Alternate Species	Duplicate	
North Peninsula	Ilnik Section northern statistical area	2006	3	7/17-7/28	400	396	3	0	0	393
North Peninsula	Ilnik Section northern statistical area	2007	1	6/20-6/29	400	443	2	0	0	441
North Peninsula	Ilnik Section northern statistical area	2007	2	7/02-7/14	400	399	3	1	0	395
North Peninsula	Ilnik Section northern statistical area	2007	3	7/16-7/31	400	400	4	0	0	396
North Peninsula	Ilnik Section northern statistical area	2008	2	7/01-7/04	379	374	12	0	1	361
North Peninsula	Ilnik Section northern statistical area	2008	3	7/05-7/11	334	334	0	2	1	331
North Peninsula	Outer Port Heiden Section	2007	1	6/20-6/27	400	394	0	0	0	394
North Peninsula	Outer Port Heiden Section	2007	2	7/02-7/12	400	388	0	1	0	387
North Peninsula	Outer Port Heiden Section	2007	3	7/16-7/30	400	398	0	0	0	398
North Peninsula	Outer Port Heiden Section	2008	1	6/30-7/03	400	396	0	0	0	396
North Peninsula	Outer Port Heiden Section	2008	2	7/07-7/09	400	379	0	0	0	379
North Peninsula	Outer Port Heiden Section	2008	3	7/14-7/15	400	392	0	0	0	392
Bristol Bay	Ugashik District	2006	1	6/12-7/02	400	450	4	0	1	445
Bristol Bay	Ugashik District	2006	2	7/04-7/07	401	432	7	2	0	423
Bristol Bay	Ugashik District	2006	3	7/08-7/11	400	399	1	0	2	396
Bristol Bay	Ugashik District	2006	4	7/12-7/16	400	400	6	0	8	386
Bristol Bay	Ugashik District	2006	5	7/17-8/31	400	400	3	1	0	396
Bristol Bay	Ugashik District	2007	1	6/12-6/25	400	397	1	0	0	396
Bristol Bay	Ugashik District	2007	2	6/29-7/01	383	381	6	0	1	374
Bristol Bay	Ugashik District	2007	3	7/02-7/07	400	458	4	1	0	453
Bristol Bay	Ugashik District	2007	4	7/08-7/11	400	399	6	0	6	387
Bristol Bay	Ugashik District	2007	5	7/12-8/17	401	443	1	0	1	441
Bristol Bay	Ugashik District	2008	1	6/16-6/29	400	400	6	0	0	394
Bristol Bay	Ugashik District	2008	2	7/02-7/03	288	287	2	0	0	285
Bristol Bay	Ugashik District	2008	3	7/04-7/10	400	405	1	0	2	402

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Fishery	Area stratum	Year	Temporal stratum	Period	Number of fish						
					Selected	Genotyped	Fish Removed			Final	
							Missing Loci	Alternate Species	Duplicate		
Bristol Bay	Ugashik District	2008	4	7/11–7/13	395	394	8	0	0	386	
Bristol Bay	Ugashik District	2008	5	7/14–8/31	400	399	12	1	2	384	
Bristol Bay	Egegik District	2006	1	6/12–7/01	401	488	2	0	1	485	
Bristol Bay	Egegik District	2006	2	7/02–7/06	400	434	8	0	1	425	
Bristol Bay	Egegik District	2006	3	7/07–7/12	400	398	7	0	0	391	
Bristol Bay	Egegik District	2006	4	7/13–7/15	400	400	1	0	1	398	
Bristol Bay	Egegik District	2006	5	7/16–8/31	400	612	0	0	3	609	
Bristol Bay	Egegik District	2007	1	6/12–6/27	326	326	2	0	1	323	
Bristol Bay	Egegik District	2007	2	6/28–7/03	400	400	2	0	0	398	
Bristol Bay	Egegik District	2007	3	7/04–7/08	400	407	6	0	2	399	
Bristol Bay	Egegik District	2007	4	7/09–7/14	400	400	1	0	0	399	
Bristol Bay	Egegik District	2007	5	7/15–8/31	359	358	3	0	0	355	
Bristol Bay	Egegik District	2008	1	6/09–6/26	400	400	2	0	3	395	
Bristol Bay	Egegik District	2008	2	6/27–6/29	400	400	1	1	1	397	
Bristol Bay	Egegik District	2008	3	6/30–7/05	400	399	1	0	1	397	
Bristol Bay	Egegik District	2008	4	7/06–7/08	400	398	0	0	1	397	
Bristol Bay	Egegik District	2008	5	7/09–8/31	400	581	4	0	3	574	
Bristol Bay	Naknek-Kvichak District	2006	1	6/19–7/09	400	694	2	2	0	690	
Bristol Bay	Naknek-Kvichak District	2006	2	7/10–7/10	240	240	0	0	1	239	
Bristol Bay	Naknek-Kvichak District	2006	3	7/11–7/13	400	540	1	0	0	539	
Bristol Bay	Naknek-Kvichak District	2006	4	7/14–7/17	400	431	5	0	1	425	
Bristol Bay	Naknek-Kvichak District	2006	5	7/18–8/25	400	393	40	0	2	351	
Bristol Bay	Naknek-Kvichak District	2006	6	7/07–7/12	0	164	0	0	0	164	
Bristol Bay	Naknek-Kvichak District	2006	7	7/10–8/04	0	190	0	0	0	190	
Bristol Bay	Naknek-Kvichak District	2007	1	6/12–6/27	300	299	1	1	2	295	
Bristol Bay	Naknek-Kvichak District	2007	2	6/28–7/08	400	400	3	0	0	397	
Bristol Bay	Naknek-Kvichak District	2007	3	7/09–7/12	400	408	3	0	2	403	
Bristol Bay	Naknek-Kvichak District	2007	4	7/13–7/16	400	401	2	0	0	399	
Bristol Bay	Naknek-Kvichak District	2007	5	7/17–8/21	265	265	4	1	0	260	
Bristol Bay	Naknek-Kvichak District	2008	1	6/16–7/01	400	580	4	0	3	573	

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Fishery	Area stratum	Year	Temporal stratum	Period	Number of fish						
					Selected	Genotyped	Fish Removed			Final	
							Missing Loci	Alternate Species	Duplicate		
Bristol Bay	Naknek-Kvichak District	2008	2	7/02-7/05	400	399	2	0	1	396	
Bristol Bay	Naknek-Kvichak District	2008	3	7/06-7/09	401	404	1	0	0	403	
Bristol Bay	Naknek-Kvichak District	2008	4	7/10-7/14	400	420	2	0	0	418	
Bristol Bay	Naknek-Kvichak District	2008	5	7/15-8/31	400	401	8	0	2	391	
Bristol Bay	Naknek-Kvichak District	2008	6	6/19-7/29	400	386	1	0	0	385	
Bristol Bay	Nushagak District	2006	1	6/11-6/29	400	487	7	3	0	477	
Bristol Bay	Nushagak District	2006	2	6/30-7/05	400	420	23	0	1	396	
Bristol Bay	Nushagak District	2006	3	7/06-7/10	400	463	6	5	0	452	
Bristol Bay	Nushagak District	2006	4	7/11-7/15	400	400	10	4	1	385	
Bristol Bay	Nushagak District	2006	5	7/16-8/20	400	400	3	0	0	397	
Bristol Bay	Nushagak District	2006	6	6/22-7/25	0	190	0	0	0	190	
Bristol Bay	Nushagak District	2007	1	6/09-6/28	400	475	8	0	0	467	
Bristol Bay	Nushagak District	2007	2	6/29-7/02	400	416	3	0	1	412	
Bristol Bay	Nushagak District	2007	3	7/03-7/07	400	399	1	0	0	398	
Bristol Bay	Nushagak District	2007	4	7/08-7/12	400	399	3	0	0	396	
Bristol Bay	Nushagak District	2007	5	7/13-8/31	400	401	2	0	0	399	
Bristol Bay	Nushagak District	2008	1	6/09-7/01	400	433	7	0	0	426	
Bristol Bay	Nushagak District	2008	2	7/02-7/03	288	283	102	0	0	181	
Bristol Bay	Nushagak District	2008	3	7/04-7/06	288	282	2	0	3	277	
Bristol Bay	Nushagak District	2008	4	7/07-7/09	400	397	1	0	0	396	
Bristol Bay	Nushagak District	2008	5	7/10-8/31	400	602	10	0	0	592	
Bristol Bay	Togiak District	2006	1	6/19-7/02	164	153	4	0	0	149	
Bristol Bay	Togiak District	2006	2	7/03-7/10	250	250	27	0	1	222	
Bristol Bay	Togiak District	2006	5	7/22-8/09	266	266	6	0	0	260	
Bristol Bay	Togiak District	2007	1	6/18-7/06	400	399	5	0	0	394	
Bristol Bay	Togiak District	2007	2	7/07-7/10	400	400	1	0	1	398	
Bristol Bay	Togiak District	2007	3	7/13-7/16	300	300	1	0	0	299	
Bristol Bay	Togiak District	2007	4	7/17-7/21	400	400	6	1	1	392	
Bristol Bay	Togiak District	2007	5	7/23-8/06	399	399	2	2	0	395	
Bristol Bay	Togiak District	2008	1	6/18-7/05	400	398	1	0	2	395	

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Fishery	Area stratum	Year	Temporal stratum	Period	Number of fish						
					Selected	Genotyped	Fish Removed			Final	
							Missing Loci	Alternate Species	Duplicate		
Bristol Bay	Togiak District	2008	2	7/07–7/12	400	501	1	0	1	499	
Bristol Bay	Togiak District	2008	3	7/13–7/19	401	395	3	0	2	390	
Bristol Bay	Togiak District	2008	4	7/20–7/24	400	394	2	0	1	391	
Bristol Bay	Togiak District	2008	5	7/25–8/06	400	400	4	0	0	396	
Kuskokwim Area	District 5 Commercial	2006	1	6/22–7/03	140	134	4	0	0	130	
Kuskokwim Area	District 5 Commercial	2007	1	6/19–7/04	210	169	1	0	0	168	
Kuskokwim Area	District 5 Commercial	2007	2	7/06–7/16	388	388	11	0	1	376	
Kuskokwim Area	District 5 Commercial	2007	3	7/18–8/31	400	391	2	0	1	388	
Kuskokwim Area	District 4 Commercial	2006	1	6/15–6/30	349	348	6	0	1	341	
Kuskokwim Area	District 4 Commercial	2006	2	7/03–7/10	400	393	17	0	0	376	
Kuskokwim Area	District 4 Commercial	2006	3	7/17–9/01	401	401	5	0	0	396	
Kuskokwim Area	District 4 Commercial	2007	1	6/14–7/02	400	398	21	0	0	377	
Kuskokwim Area	District 4 Commercial	2007	2	7/04–7/16	400	400	5	0	0	395	
Kuskokwim Area	District 4 Commercial	2007	3	7/18–8/31	400	400	9	1	1	389	
Kuskokwim Area	District 4 Commercial	2008	1	6/14–7/08	400	400	7	0	0	393	
Kuskokwim Area	District 4 Commercial	2008	2	7/10–7/18	400	400	1	0	2	397	
Kuskokwim Area	District 4 Commercial	2008	3	7/21–8/29	400	400	5	0	0	395	
Total					81,482	84,625	1,039	41	152	83,393	





**APPENDIX B: CHIGNIK AREA, WESTWARD REGION,  
SUBREGIONAL STOCK COMPOSITION ESTIMATES**

Appendix B1.–Central District, Chignik Area, Westward Region, 2006, temporal strata 1–3. Subregional reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (6/16–6/17; H=4,122; n=397)					Stratum 2 (6/26–6/30; H=41,988; n=382)					Stratum 3 (7/2–7/11; H=26,607; n=374)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%				5%	95%		
Norton Sound		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
Kuskokwim Bay	Kuskokwim R.	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Kanektok	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1
	Goodnews	0.0	0.0	0.1	0.87	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.3	0.82	0.1
Bristol Bay	Togiak	0.1	0.0	0.5	0.55	0.2	0.0	0.0	0.0	0.92	0.0	0.2	0.0	0.8	0.14	0.3
	Igushik	0.0	0.0	0.0	0.91	0.1	0.2	0.0	0.7	0.36	0.3	0.1	0.0	0.4	0.82	0.2
	Wood	0.0	0.0	0.0	0.82	0.1	0.1	0.0	0.5	0.65	0.2	0.1	0.0	0.6	0.63	0.2
	Nushagak	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.90	0.1
	Kvichak	0.9	0.1	2.1	0.00	0.6	0.0	0.0	0.0	0.89	0.1	0.1	0.0	0.7	0.83	0.3
	Alagnak	0.1	0.0	0.4	0.76	0.2	0.4	0.0	1.2	0.17	0.4	0.6	0.0	1.6	0.08	0.5
	Naknek	0.1	0.0	0.6	0.67	0.2	0.6	0.1	1.6	0.02	0.5	0.0	0.0	0.0	0.90	0.1
	Egegik	0.4	0.0	1.8	0.44	0.6	0.0	0.0	0.0	0.86	0.1	1.3	0.0	2.9	0.06	0.9
	Ugashik	0.9	0.0	2.4	0.29	0.8	0.0	0.0	0.0	0.91	0.1	0.5	0.0	2.4	0.62	0.9
North Peninsula	Cinder	0.0	0.0	0.2	0.87	0.2	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.1
	Meshik	0.0	0.0	0.0	0.91	0.1	0.5	0.0	1.2	0.12	0.4	0.0	0.0	0.0	0.91	0.1
	Ilnik	0.1	0.0	0.6	0.82	0.3	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.0
	Sandy	0.1	0.0	0.8	0.69	0.3	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Bear	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.1	0.1	0.0	0.7	0.77	0.3
	Nelson	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	NW Dist.-BH	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0
South Peninsula		0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.1	0.85	0.2
Chignik	Black Lake	93.5	88.9	97.1	0.00	2.6	96.1	91.9	98.5	0.00	2.1	80.7	75.6	85.6	0.00	3.1
	Chignik Lake	2.7	0.0	7.1	0.18	2.4	1.5	0.0	5.6	0.23	2.0	14.0	9.5	18.9	0.00	2.9
East of WASSIP		1.1	0.4	2.1	0.00	0.5	0.5	0.1	1.3	0.00	0.4	2.1	1.0	3.5	0.00	0.8

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Appendix B2.–Central District, Chignik Area, Westward Region, 2006, temporal stratum 4. Subregional reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 4 (7/13–7/28; H=25,121; n=386)				
		Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%		
Norton Sound		0.0	0.0	0.0	0.92	0.0
Kuskokwim Bay	Kuskokwim R.	0.0	0.0	0.0	0.92	0.0
	Kanektok	0.0	0.0	0.0	0.92	0.0
	Goodnews	0.0	0.0	0.0	0.91	0.1
Bristol Bay	Togiak	0.0	0.0	0.0	0.92	0.0
	Igushik	0.0	0.0	0.0	0.90	0.1
	Wood	0.1	0.0	0.4	0.71	0.2
	Nushagak	0.2	0.0	0.7	0.31	0.3
	Kvichak	0.0	0.0	0.0	0.92	0.0
	Alagnak	0.0	0.0	0.0	0.92	0.0
	Naknek	0.0	0.0	0.0	0.92	0.0
	Egegik	0.0	0.0	0.0	0.92	0.0
	Ugashik	0.0	0.0	0.0	0.92	0.0
North Peninsula	Cinder	0.0	0.0	0.0	0.91	0.1
	Meshik	0.0	0.0	0.0	0.89	0.1
	Ilnik	0.0	0.0	0.0	0.91	0.1
	Sandy	0.0	0.0	0.0	0.92	0.0
	Bear	0.0	0.0	0.0	0.91	0.1
	Nelson	0.3	0.0	0.8	0.02	0.3
	NW Dist.-BH	0.0	0.0	0.0	0.92	0.0
South Peninsula		0.0	0.0	0.0	0.91	0.1
Chignik	Black Lake	36.3	30.4	42.3	0.00	3.6
	Chignik Lake	61.1	55.0	67.1	0.00	3.7
East of WASSIP		2.0	0.8	3.5	0.00	0.8

*Note:* Stock composition estimates may not sum to 100% due to rounding error.

*Note:* H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Appendix B3.–Central District, Chignik Area, Westward Region, 2007, temporal strata 1–3. Subregional reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (6/15–6/17; H=4,612; n=395)					Stratum 2 (6/25–7/2; H=15,953; n=395)					Stratum 3 (7/3–7/16; H=39,388; n=396)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%			5%	95%			5%	95%				
Norton Sound		0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.92	0.0
Kuskokwim Bay	Kuskokwim R.	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Kanektok	0.0	0.0	0.1	0.88	0.2	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Goodnews	0.7	0.0	2.1	0.28	0.7	0.0	0.0	0.2	0.83	0.1	0.4	0.0	1.5	0.57	0.6
Bristol Bay	Togiak	0.1	0.0	0.8	0.75	0.3	0.0	0.0	0.3	0.81	0.1	0.5	0.0	1.5	0.34	0.5
	Igushik	1.5	0.0	3.8	0.20	1.3	0.1	0.0	0.5	0.80	0.2	0.0	0.0	0.2	0.87	0.2
	Wood	4.9	2.3	7.8	0.00	1.7	0.3	0.0	1.0	0.09	0.3	0.8	0.0	1.8	0.06	0.5
	Nushagak	0.6	0.0	2.8	0.45	1.0	0.0	0.0	0.1	0.86	0.1	0.0	0.0	0.0	0.92	0.0
	Kvichak	2.1	0.9	3.7	0.00	0.9	0.3	0.0	0.8	0.00	0.3	0.0	0.0	0.0	0.92	0.0
	Alagnak	0.0	0.0	0.0	0.89	0.1	0.4	0.0	1.1	0.25	0.4	0.3	0.0	0.9	0.03	0.3
	Naknek	1.8	0.7	3.3	0.00	0.8	0.1	0.0	0.7	0.79	0.3	0.0	0.0	0.0	0.90	0.1
	Egegik	3.7	1.5	6.6	0.00	1.6	1.4	0.5	2.5	0.00	0.6	0.0	0.0	0.0	0.91	0.1
	Ugashik	3.9	1.3	6.4	0.03	1.6	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.91	0.1
North Peninsula	Cinder	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.91	0.1
	Meshik	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1
	Ilnik	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.89	0.1	0.0	0.0	0.0	0.91	0.1
	Sandy	0.0	0.0	0.0	0.89	0.1	0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.90	0.1
	Bear	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Nelson	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	NW Dist.-BH	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
South Peninsula		0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.91	0.1	0.1	0.0	0.7	0.68	0.3
Chignik	Black Lake	80.4	76.8	83.7	0.00	2.1	94.0	89.5	98.1	0.00	2.7	25.3	20.0	30.8	0.00	3.3
	Chignik Lake	0.1	0.0	0.7	0.77	0.6	3.4	0.0	7.6	0.21	2.6	71.9	66.3	77.4	0.00	3.4
East of WASSIP		0.1	0.0	0.5	0.61	0.2	0.0	0.0	0.0	0.92	0.0	0.6	0.1	1.5	0.01	0.5

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Appendix B4.–Central District, Chignik Area, Westward Region, 2007, temporal stratum 4. Subregional reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 4 (7/20–7/31; H=58,070; n=397)				
		Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%		
Norton Sound		0.0	0.0	0.0	0.92	0.0
Kuskokwim Bay	Kuskokwim R.	0.0	0.0	0.0	0.92	0.0
	Kanektok	0.0	0.0	0.0	0.92	0.0
	Goodnews	0.1	0.0	0.5	0.75	0.2
Bristol Bay	Togiak	0.1	0.0	0.6	0.65	0.2
	Igushik	0.1	0.0	0.5	0.70	0.2
	Wood	0.0	0.0	0.2	0.84	0.1
	Nushagak	0.0	0.0	0.0	0.92	0.0
	Kvichak	0.3	0.0	0.8	0.02	0.3
	Alagnak	0.0	0.0	0.0	0.92	0.0
	Naknek	0.1	0.0	0.4	0.81	0.2
	Egegik	1.8	0.6	3.3	0.01	0.8
	Ugashik	0.1	0.0	0.1	0.88	0.3
North Peninsula	Cinder	0.1	0.0	0.8	0.70	0.3
	Meshik	0.0	0.0	0.2	0.86	0.2
	Ilnik	0.0	0.0	0.1	0.88	0.2
	Sandy	0.0	0.0	0.0	0.92	0.1
	Bear	0.0	0.0	0.0	0.91	0.1
	Nelson	0.0	0.0	0.0	0.92	0.0
	NW Dist.-BH	0.0	0.0	0.0	0.89	0.1
South Peninsula		0.3	0.0	1.3	0.51	0.5
Chignik	Black Lake	8.8	5.2	12.8	0.00	2.3
	Chignik Lake	86.7	82.2	90.7	0.00	2.6
East of WASSIP		1.6	0.3	3.2	0.00	0.9

*Note:* Stock composition estimates may not sum to 100% due to rounding error.

*Note:* H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Appendix B5.–Central District, Chignik Area, Westward Region, 2008, temporal strata 1–3. Subregional reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (6/24–6/25; H=7,350; n=382)					Stratum 2 (6/26–7/1; H=24,296; n=190)					Stratum 3 (7/4–7/10; H=22,887; n=396)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%				5%	95%		
Norton Sound		0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0
Kuskokwim Bay	Kuskokwim R.	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.0
	Kanektok	0.2	0.0	0.8	0.55	0.3	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0
	Goodnews	0.3	0.0	0.9	0.03	0.3	0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.91	0.1
Bristol Bay	Togiak	0.0	0.0	0.0	0.91	0.1	0.6	0.0	1.8	0.10	0.6	0.0	0.0	0.0	0.92	0.1
	Igushik	0.2	0.0	1.0	0.64	0.4	0.1	0.0	0.5	0.84	0.3	0.0	0.0	0.1	0.87	0.1
	Wood	1.1	0.1	2.4	0.03	0.7	0.5	0.0	1.9	0.49	0.7	0.0	0.0	0.0	0.92	0.0
	Nushagak	0.1	0.0	1.0	0.77	0.4	0.1	0.0	0.7	0.84	0.4	0.0	0.0	0.1	0.88	0.1
	Kvichak	0.6	0.0	2.5	0.00	0.8	0.0	0.0	0.0	0.91	0.1	0.6	0.0	1.9	0.02	0.6
	Alagnak	0.8	0.2	1.7	0.00	0.5	1.0	0.1	2.5	0.03	0.8	0.2	0.0	1.1	0.50	0.4
	Naknek	4.6	2.5	6.8	0.00	1.3	2.1	0.0	5.1	0.18	1.7	1.0	0.1	2.2	0.03	0.7
	Egegik	6.7	4.5	9.2	0.00	1.4	2.8	0.6	6.0	0.02	1.7	2.0	0.5	3.7	0.03	1.0
	Ugashik	0.1	0.0	0.9	0.65	0.4	0.2	0.0	1.7	0.83	0.8	0.1	0.0	1.1	0.84	0.5
North Peninsula	Cinder	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.90	0.1
	Meshik	0.0	0.0	0.1	0.88	0.1	0.0	0.0	0.0	0.89	0.2	0.0	0.0	0.0	0.89	0.1
	Ilnik	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.91	0.1
	Sandy	0.0	0.0	0.2	0.86	0.2	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.90	0.1
	Bear	0.1	0.0	0.4	0.85	0.3	0.5	0.0	1.7	0.27	0.6	0.0	0.0	0.1	0.88	0.2
	Nelson	0.0	0.0	0.1	0.87	0.1	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0
	NW Dist.-BH	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.1	0.88	0.1
South Peninsula		1.2	0.4	2.3	0.00	0.6	1.3	0.0	3.2	0.10	1.0	3.6	2.2	5.3	0.00	1.0
Chignik	Black Lake	78.2	72.6	83.3	0.00	3.3	77.9	70.7	84.4	0.00	4.2	33.1	27.0	39.4	0.00	3.8
	Chignik Lake	3.4	0.0	8.3	0.17	2.7	9.8	4.3	16.4	0.00	3.7	53.2	46.7	59.7	0.00	4.0
East of WASSIP		2.3	1.0	3.9	0.00	0.9	3.2	1.3	5.7	0.00	1.4	5.9	3.9	8.2	0.00	1.3

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Appendix B6.–Central District, Chignik Area, Westward Region, 2008, temporal stratum 4. Subregional reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 4 (7/18–7/31; H=16,525; n=433)				
		Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%		
Norton Sound		0.0	0.0	0.0	0.92	0.0
Kuskokwim Bay	Kuskokwim R.	0.0	0.0	0.0	0.92	0.0
	Kanektok	0.0	0.0	0.0	0.91	0.0
	Goodnews	0.0	0.0	0.1	0.88	0.2
Bristol Bay	Togiak	0.6	0.0	1.4	0.04	0.4
	Igushik	0.0	0.0	0.0	0.91	0.1
	Wood	0.4	0.0	1.2	0.28	0.4
	Nushagak	0.0	0.0	0.1	0.88	0.1
	Kvichak	0.0	0.0	0.0	0.90	0.1
	Alagnak	0.0	0.0	0.0	0.92	0.0
	Naknek	0.4	0.0	1.1	0.18	0.4
	Egegik	0.1	0.0	0.7	0.61	0.3
	Ugashik	0.0	0.0	0.3	0.84	0.2
North Peninsula	Cinder	0.0	0.0	0.0	0.91	0.1
	Meshik	0.0	0.0	0.0	0.92	0.0
	Ilnik	0.0	0.0	0.0	0.92	0.1
	Sandy	0.0	0.0	0.0	0.92	0.0
	Bear	0.1	0.0	0.6	0.73	0.2
	Nelson	0.0	0.0	0.0	0.92	0.0
	NW Dist.-BH	0.0	0.0	0.0	0.90	0.1
South Peninsula		1.0	0.3	2.0	0.00	0.6
Chignik	Black Lake	7.0	3.8	10.6	0.00	2.1
	Chignik Lake	86.7	82.6	90.5	0.00	2.4
East of WASSIP		3.6	2.1	5.5	0.00	1.0

*Note:* Stock composition estimates may not sum to 100% due to rounding error.

*Note:* H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Appendix B7.–Chignik Bay District, Chignik Area, Westward Region, 2006, temporal strata 1-3. Subregional reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (6/8–6/19; H=105,006; n=400)					Stratum 2 (6/25–6/28; H=132,178; n=399)					Stratum 3 (6/29–7/4; H=116,238; n=379)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%				5%	95%		
Norton Sound		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.89	0.1	0.0	0.0	0.0	0.92	0.0
Kuskokwim Bay	Kuskokwim R.	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Kanektok	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Goodnews	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
Bristol Bay	Togiak	0.0	0.0	0.0	0.93	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Igushik	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.3	0.78	0.1	0.0	0.0	0.3	0.84	0.2
	Wood	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.1	0.87	0.1
	Nushagak	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1	0.4	0.0	1.3	0.26	0.4
	Kvichak	0.0	0.0	0.0	0.89	0.1	0.0	0.0	0.0	0.91	0.1	0.2	0.0	1.0	0.52	0.4
	Alagnak	0.0	0.0	0.0	0.92	0.0	0.1	0.0	0.5	0.63	0.2	0.0	0.0	0.2	0.83	0.1
	Naknek	0.0	0.0	0.2	0.83	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.89	0.1
	Egegik	0.1	0.0	0.6	0.49	0.2	0.2	0.0	1.1	0.52	0.4	0.0	0.0	0.0	0.91	0.1
	Ugashik	0.1	0.0	0.4	0.74	0.2	0.1	0.0	0.6	0.79	0.3	0.0	0.0	0.0	0.90	0.1
North Peninsula	Cinder	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0
	Meshik	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.3	0.82	0.2	0.0	0.0	0.0	0.92	0.0
	Ilnik	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.1
	Sandy	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Bear	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1
	Nelson	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	NW Dist.-BH	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
South Peninsula		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0
Chignik	Black Lake	98.6	95.0	100.0	0.00	1.7	98.5	95.4	100.0	0.00	1.5	84.0	77.7	89.7	0.00	3.6
	Chignik Lake	1.1	0.0	4.7	0.28	1.7	0.9	0.0	4.0	0.22	1.4	15.2	9.5	21.5	0.00	3.6
East of WASSIP		0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.



Appendix B8.—Chignik Bay District, Chignik Area, Westward Region, 2006, temporal strata 4–6. Subregional reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 4 (7/5–7/10; H=62,390; n=399)					Stratum 5 (7/11–7/19; H=87,291; n=398)					Stratum 6 (7/21–7/31; H=156,065; n=398)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%				5%	95%		
Norton Sound		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
Kuskokwim Bay	Kuskokwim R.	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Kanektok	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Goodnews	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
Bristol Bay	Togiak	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Igushik	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Wood	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Nushagak	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Kvichak	0.0	0.0	0.0	0.89	0.1	0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.92	0.0
	Alagnak	0.3	0.0	0.8	0.00	0.3	0.0	0.0	0.0	0.92	0.0	0.2	0.0	0.7	0.05	0.3
	Naknek	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.92	0.0
	Egegik	0.6	0.0	1.7	0.30	0.6	0.1	0.0	0.8	0.80	0.3	0.0	0.0	0.0	0.92	0.0
	Ugashik	0.3	0.0	1.4	0.56	0.5	0.7	0.0	1.7	0.13	0.5	0.0	0.0	0.0	0.92	0.0
North Peninsula	Cinder	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Meshik	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Ilnik	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.89	0.1
	Sandy	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Bear	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Nelson	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	NW Dist.-BH	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.1
South Peninsula		0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1
Chignik	Black Lake	70.6	63.9	76.9	0.00	4.0	42.2	36.4	48.0	0.00	3.5	13.6	9.5	18.1	0.00	2.6
	Chignik Lake	28.2	21.8	34.8	0.00	3.9	56.9	51.1	62.7	0.00	3.5	86.0	81.5	90.2	0.00	2.6
East of WASSIP		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Appendix B9.–Chignik Bay District, Chignik Area, Westward Region, 2007, temporal strata 1–3. Subregional reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (6/9–6/19; H=45,221; n=397)					Stratum 2 (6/22–6/26; H=39,470; n=398)					Stratum 3 (6/28–7/4; H=78,118; n=397)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%				5%	95%		
Norton Sound		0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
Kuskokwim Bay	Kuskokwim R.	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Kanektok	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Goodnews	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
Bristol Bay	Togiak	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Igushik	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0
	Wood	0.0	0.0	0.0	0.92	0.0	0.4	0.0	1.1	0.08	0.4	0.0	0.0	0.0	0.92	0.0
	Nushagak	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0
	Kvichak	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.6	0.1	1.4	0.00	0.4
	Alagnak	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Naknek	0.1	0.0	0.5	0.67	0.2	0.5	0.0	1.5	0.35	0.5	0.1	0.0	0.6	0.42	0.2
	Egegik	1.1	0.3	2.2	0.01	0.6	0.3	0.0	1.4	0.57	0.5	0.2	0.0	1.0	0.52	0.4
	Ugashik	0.0	0.0	0.1	0.88	0.2	0.0	0.0	0.0	0.91	0.1	0.2	0.0	1.0	0.53	0.4
North Peninsula	Cinder	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0
	Meshik	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Ilnik	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.1
	Sandy	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Bear	0.3	0.0	1.0	0.28	0.4	0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.91	0.1
	Nelson	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	NW Dist.-BH	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
South Peninsula		0.0	0.0	0.0	0.92	0.0	0.1	0.0	0.5	0.82	0.2	0.0	0.0	0.0	0.92	0.0
Chignik	Black Lake	98.5	97.1	99.4	0.00	0.8	91.1	86.9	94.8	0.00	2.4	77.0	70.8	82.8	0.00	3.7
	Chignik Lake	0.0	0.0	0.0	0.91	0.3	7.5	3.9	11.7	0.00	2.4	21.7	16.0	27.9	0.00	3.6
East of WASSIP		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.2	0.82	0.1	0.0	0.0	0.0	0.92	0.0

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Appendix B10.—Chignik Bay District, Chignik Area, Westward Region, 2007, temporal strata 4–6. Subregional reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 4 (7/5–7/11; H=66,463; n=400)					Stratum 5 (7/12–7/16; H=78,697; n=396)					Stratum 6 (7/20–7/31; H=141,849; n=399)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%				5%	95%		
Norton Sound		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
Kuskokwim Bay	Kuskokwim R.	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Kanektok	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Goodnews	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
Bristol Bay	Togiak	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Igushik	0.0	0.0	0.2	0.82	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1
	Wood	0.0	0.0	0.2	0.85	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1
	Nushagak	0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Kvichak	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Alagnak	0.5	0.1	1.2	0.00	0.4	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1
	Naknek	0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.1	0.89	0.1	0.0	0.0	0.0	0.92	0.0
	Egegik	0.1	0.0	1.1	0.78	0.4	0.4	0.0	1.2	0.21	0.4	0.0	0.0	0.0	0.92	0.0
	Ugashik	1.2	0.0	2.4	0.12	0.7	0.1	0.0	0.7	0.72	0.3	0.0	0.0	0.0	0.92	0.0
North Peninsula	Cinder	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0
	Meshik	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Ilnik	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.91	0.1
	Sandy	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1
	Bear	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Nelson	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	NW Dist.-BH	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
South Peninsula		0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
Chignik	Black Lake	25.0	19.9	30.3	0.00	3.1	10.6	6.4	15.3	0.00	2.7	7.7	4.5	11.2	0.00	2.0
	Chignik Lake	72.9	67.6	78.0	0.00	3.2	88.7	84.0	93.0	0.00	2.7	92.3	88.7	95.4	0.00	2.1
East of WASSIP		0.2	0.0	0.7	0.15	0.3	0.1	0.0	0.4	0.75	0.2	0.0	0.0	0.0	0.92	0.0

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Appendix B11.—Chignik Bay District, Chignik Area, Westward Region, 2008, temporal strata 1–3. Subregional reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (6/9–6/25; H=55,871; n=398)					Stratum 2 (6/26–7/1; H=114,252; n=397)					Stratum 3 (7/4–7/5; H=43,296; n=397)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%				5%	95%		
Norton Sound		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
Kuskokwim Bay	Kuskokwim R.	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Kanektok	0.0	0.0	0.1	0.87	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Goodnews	0.2	0.0	0.9	0.70	0.4	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
Bristol Bay	Togiak	0.0	0.0	0.2	0.85	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Igushik	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.1	0.88	0.1
	Wood	0.2	0.0	0.7	0.39	0.3	0.0	0.0	0.0	0.92	0.0	0.1	0.0	0.3	0.80	0.2
	Nushagak	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.90	0.1
	Kvichak	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.90	0.1	0.1	0.0	0.4	0.76	0.2
	Alagnak	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.1	0.87	0.1	0.3	0.0	1.1	0.33	0.4
	Naknek	0.0	0.0	0.0	0.92	0.0	0.2	0.0	0.7	0.10	0.3	0.0	0.0	0.2	0.83	0.1
	Egegik	0.0	0.0	0.0	0.93	0.0	0.1	0.0	0.4	0.76	0.2	0.0	0.0	0.0	0.91	0.1
	Ugashik	0.0	0.0	0.0	0.92	0.0	0.1	0.0	0.5	0.70	0.2	0.0	0.0	0.0	0.90	0.1
North Peninsula	Cinder	0.0	0.0	0.0	0.89	0.1	0.1	0.0	0.6	0.76	0.3	0.0	0.0	0.0	0.92	0.0
	Meshik	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.92	0.0
	Ilnik	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.91	0.1
	Sandy	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Bear	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Nelson	0.2	0.0	0.7	0.19	0.3	0.0	0.0	0.0	0.92	0.0	0.1	0.0	0.6	0.54	0.2
	NW Dist.-BH	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
South Peninsula		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.1	
Chignik	Black Lake	94.1	89.7	99.4	0.00	2.8	85.7	79.2	92.0	0.00	3.9	52.9	46.6	59.1	0.00	3.8
	Chignik Lake	5.3	0.0	9.6	0.09	2.7	13.8	7.5	20.2	0.00	3.9	46.5	40.3	52.8	0.00	3.8
East of WASSIP		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Appendix B12.–Chignik Bay District, Chignik Area, Westward Region, 2008, temporal strata 4 and 6. Subregional reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 4 (7/6–7/10; H=61,138; n=400)					Stratum 6 (7/18–7/31; H=88,042; n=397)				
		90% CI					90% CI				
Regional	Subregional	Mean	5%	95%	$P=0$	SD	Mean	5%	95%	$P=0$	SD
Norton Sound		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
Kuskokwim Bay	Kuskokwim R.	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Kanektok	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Goodnews	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
Bristol Bay	Togiak	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Igushik	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Wood	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Nushagak	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Kvichak	0.0	0.0	0.0	0.92	0.0	0.1	0.0	0.5	0.81	0.2
	Alagnak	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.88	0.1
	Naknek	0.0	0.0	0.0	0.91	0.0	0.4	0.0	1.1	0.14	0.4
	Egegik	0.0	0.0	0.0	0.92	0.0	0.2	0.0	0.8	0.15	0.3
	Ugashik	0.0	0.0	0.1	0.86	0.1	0.0	0.0	0.0	0.89	0.1
North Peninsula	Cinder	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1
	Meshik	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Ilnik	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Sandy	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Bear	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Nelson	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	NW Dist.–BH	0.0	0.0	0.0	0.89	0.1	0.0	0.0	0.0	0.92	0.0
South Peninsula		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.92	0.0	
Chignik	Black Lake	45.4	38.7	52.2	0.00	4.1	8.4	5.0	12.1	0.00	2.2
	Chignik Lake	54.5	47.7	61.2	0.00	4.1	90.8	87.1	94.3	0.00	2.2
East of WASSIP		0.0	0.0	0.0	0.93	0.0	0.0	0.0	0.0	0.92	0.0

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Appendix B13.–Western and Perryville districts, Chignik Area, Westward Region, 2006, temporal strata 2–3. Subregional reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 2 (7/11–7/16; H=30,032; n=369)					Stratum 3 (7/20–7/28; H=32,347; n=330)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%		
Norton Sound		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
Kuskokwim Bay	Kuskokwim R.	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Kanektok	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Goodnews	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1
Bristol Bay	Togiak	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.1
	Igushik	0.4	0.0	1.2	0.22	0.4	0.0	0.0	0.0	0.92	0.0
	Wood	0.0	0.0	0.1	0.88	0.1	0.0	0.0	0.0	0.92	0.0
	Nushagak	0.0	0.0	0.1	0.88	0.1	0.0	0.0	0.0	0.91	0.1
	Kvichak	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1
	Alagnak	0.6	0.1	1.4	0.01	0.4	0.0	0.0	0.0	0.92	0.0
	Naknek	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Egegik	0.0	0.0	0.0	0.92	0.0	0.3	0.0	1.1	0.33	0.4
	Ugashik	0.0	0.0	0.0	0.92	0.0	0.1	0.0	0.7	0.76	0.3
North Peninsula	Cinder	0.0	0.0	0.1	0.86	0.1	0.0	0.0	0.0	0.91	0.1
	Meshik	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1
	Ilnik	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.1
	Sandy	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.90	0.1
	Bear	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.1	0.89	0.1
	Nelson	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.1	0.88	0.1
	NW Dist.–BH	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
South Peninsula		0.0	0.0	0.0	0.88	0.1	0.0	0.0	0.0	0.90	0.1
Chignik	Black Lake	51.5	46.2	56.8	0.00	3.2	22.1	17.0	27.6	0.00	3.2
	Chignik Lake	14.1	9.9	18.6	0.00	2.6	46.5	40.6	52.5	0.00	3.6
East of WASSIP		33.3	29.3	37.4	0.00	2.5	30.8	26.6	35.3	0.00	2.7

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Appendix B14.–Western and Perryville districts, Chignik Area, Westward Region, 2007, temporal strata 2–3. Subregional reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 2 (7/9–7/15; H=59,684; n=399)					Stratum 3 (7/20–7/31; H=48,923; n=399)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%		
Norton Sound		0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.90	0.1
Kuskokwim Bay	Kuskokwim R.	0.0	0.0	0.1	0.88	0.2	0.0	0.0	0.0	0.90	0.1
	Kanektok	0.0	0.0	0.1	0.88	0.2	0.1	0.0	0.4	0.85	0.3
	Goodnews	1.1	0.0	2.7	0.22	0.9	2.4	0.9	4.2	0.02	1.0
Bristol Bay	Togiak	0.2	0.0	1.3	0.65	0.5	0.2	0.0	1.4	0.81	0.6
	Igushik	1.6	0.0	3.6	0.24	1.2	0.0	0.0	0.0	0.87	0.1
	Wood	0.5	0.0	2.3	0.63	0.8	0.8	0.0	2.0	0.09	0.6
	Nushagak	0.0	0.0	0.0	0.90	0.1	0.2	0.0	1.3	0.60	0.5
	Kvichak	0.3	0.0	0.8	0.00	0.3	0.3	0.0	0.8	0.00	0.3
	Alagnak	1.2	0.4	2.3	0.00	0.6	0.3	0.0	1.0	0.28	0.4
	Naknek	2.0	0.8	3.6	0.00	0.9	0.8	0.0	2.0	0.12	0.7
	Egegik	1.8	0.0	4.5	0.23	1.5	1.5	0.0	3.6	0.23	1.2
Ugashik	4.4	2.0	7.2	0.01	1.6	0.9	0.0	3.4	0.37	1.2	
North Peninsula	Cinder	0.3	0.0	1.9	0.71	0.7	1.1	0.0	3.1	0.32	1.1
	Meshik	1.8	0.0	4.2	0.22	1.4	0.3	0.0	1.9	0.67	0.7
	Ilnik	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.90	0.2
	Sandy	0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.92	0.1
	Bear	0.0	0.0	0.1	0.88	0.1	1.3	0.5	2.5	0.00	0.6
	Nelson	0.0	0.0	0.1	0.88	0.1	0.0	0.0	0.0	0.91	0.1
	NW Dist.–BH	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.90	0.1
South Peninsula		0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.90	0.1
Chignik	Black Lake	29.8	24.6	35.2	0.00	3.2	8.7	5.3	12.4	0.00	2.2
	Chignik Lake	36.3	30.9	41.9	0.00	3.4	42.1	37.0	47.3	0.00	3.1
East of WASSIP		18.5	15.2	22.0	0.00	2.1	38.8	34.4	43.4	0.00	2.7

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Appendix B15.–Western and Perryville districts, Chignik Area, Westward Region, 2008, temporal strata 1–3. Subregional reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (6/24–6/30; H=20,421; n=396)					Stratum 2 (7/5–7/9; H=14,170; n=173)					Stratum 3 (7/21–7/31; H=15,793; n=526)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%				5%	95%		
Norton Sound		0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0
Kuskokwim Bay	Kuskokwim R.	0.4	0.0	1.3	0.26	0.5	1.5	0.3	3.5	0.00	1.0	0.4	0.0	1.7	0.47	0.6
	Kanektok	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.1	0.85	0.1
	Goodnews	3.6	1.9	5.5	0.00	1.1	0.4	0.0	1.5	0.33	0.6	0.1	0.0	1.1	0.82	0.5
Bristol Bay	Togiak	0.1	0.0	0.8	0.71	0.3	0.0	0.0	0.1	0.88	0.2	1.9	0.8	3.2	0.03	0.7
	Igushik	3.1	0.8	5.5	0.03	1.4	0.0	0.0	0.1	0.78	0.1	0.0	0.0	0.2	0.87	0.2
	Wood	4.2	2.2	6.5	0.00	1.3	0.0	0.0	0.1	0.72	0.1	1.5	0.6	2.7	0.00	0.6
	Nushagak	1.5	0.1	3.2	0.04	1.0	0.0	0.0	0.0	0.88	0.1	3.1	1.3	5.1	0.00	1.2
	Kvichak	6.9	4.2	9.9	0.00	1.7	0.8	0.0	2.4	0.12	0.8	4.4	2.7	6.4	0.00	1.1
	Alagnak	2.2	1.0	3.8	0.00	0.9	0.0	0.0	0.0	0.83	0.1	2.4	1.3	3.9	0.00	0.8
	Naknek	5.9	3.3	9.1	0.00	1.8	2.3	0.7	4.7	0.00	1.3	8.0	5.8	10.3	0.00	1.4
	Egegik	7.0	4.5	9.8	0.00	1.6	3.3	1.3	6.1	0.00	1.5	10.1	7.4	13.1	0.00	1.8
Ugashik	5.0	2.4	8.0	0.01	1.7	0.1	0.0	0.3	0.65	0.2	3.6	1.6	5.8	0.00	1.3	
North Peninsula	Cinder	0.0	0.0	0.0	0.91	0.1	0.2	0.0	1.4	0.81	0.6	0.0	0.0	0.0	0.91	0.1
	Meshik	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.89	0.3	0.0	0.0	0.0	0.89	0.2
	Ilnik	0.0	0.0	0.0	0.91	0.1	0.1	0.0	0.2	0.88	0.4	2.3	0.0	4.2	0.06	1.2
	Sandy	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.91	0.1	0.1	0.0	0.7	0.68	0.3
	Bear	0.2	0.0	1.3	0.40	0.5	1.9	0.1	4.3	0.04	1.3	8.6	6.4	11.0	0.00	1.4
	Nelson	0.0	0.0	0.0	0.92	0.0	0.5	0.0	1.7	0.10	0.6	0.1	0.0	0.7	0.66	0.3
	NW Dist.-BH	0.0	0.0	0.0	0.91	0.1	0.4	0.0	1.6	0.33	0.6	0.3	0.0	0.9	0.02	0.3
South Peninsula		1.7	0.7	3.1	0.00	0.7	19.2	14.0	24.9	0.00	3.3	13.3	10.6	16.3	0.00	1.8
Chignik	Black Lake	42.8	37.1	48.7	0.00	3.5	14.2	8.4	20.6	0.00	3.7	0.7	0.0	2.6	0.15	0.9
	Chignik Lake	5.8	0.9	10.6	0.00	2.9	40.1	32.5	47.8	0.00	4.7	24.3	20.8	27.9	0.00	2.2
East of WASSIP		9.5	7.0	12.3	0.00	1.6	14.9	10.3	20.0	0.00	3.0	14.6	11.9	17.6	0.00	1.7

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.



**APPENDIX C: SOUTHEASTERN DISTRICT MAINLAND  
(SEDM) AREA, SOUTHEASTERN DISTRICT ALASKA  
PENINSULA, WESTWARD REGION, SUBREGIONAL  
STOCK COMPOSITION ESTIMATES**

Appendix C1.–East Stepovak and Stepovak Flats sections, Southeastern District Mainland area, Southeastern District, Alaska Peninsula Area, Westward Region, 2006, temporal strata 2–3. Subregional reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 2 (7/20–7/21; H=50,823; n=399)					Stratum 3 (7/26–8/23; H=94,661; n=298)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%		
Norton Sound		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.1
Kuskokwim Bay	Kuskokwim R.	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1
	Kanektok	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.2	0.86	0.2
	Goodnews	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.90	0.1
Bristol Bay	Togiak	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.1
	Igushik	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Wood	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Nushagak	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1
	Kvichak	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.90	0.1
	Alagnak	0.0	0.0	0.0	0.92	0.0	0.2	0.0	0.9	0.33	0.3
	Naknek	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.3	0.83	0.2
	Egegik	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.89	0.2
	Ugashik	0.0	0.0	0.0	0.92	0.0	0.3	0.0	1.2	0.54	0.5
North Peninsula	Cinder	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.91	0.1
	Meshik	0.0	0.0	0.0	0.92	0.0	0.1	0.0	0.6	0.85	0.3
	Ilnik	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1
	Sandy	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.1	0.88	0.1
	Bear	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.90	0.1
	Nelson	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	NW Dist.-BH	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1
South Peninsula		0.0	0.0	0.0	0.92	0.0	0.2	0.0	0.8	0.59	0.3
Chignik	Black Lake	20.7	16.4	25.3	0.00	2.7	9.6	5.4	14.1	0.00	2.6
	Chignik Lake	40.1	35.1	45.2	0.00	3.1	44.7	38.8	50.7	0.00	3.6
East of WASSIP		39.1	35.1	43.3	0.00	2.5	44.8	39.9	49.7	0.00	3.0

*Note:* Stock composition estimates may not sum to 100% due to rounding error.

*Note:* H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Appendix C2.—East Stepovak and Stepovak Flats sections, Southeastern District Mainland area, Southeastern District, Alaska Peninsula Area, Westward Region, 2007, temporal stratum 3. Subregional reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 3 (8/1–8/20; H=72,315; n=394)				
		Mean	90% CI		P=0	SD
Regional	Subregional		5%	95%		
Norton Sound		0.0	0.0	0.0	0.92	0.0
Kuskokwim Bay	Kuskokwim R.	0.0	0.0	0.0	0.92	0.0
	Kanektok	0.0	0.0	0.0	0.92	0.0
	Goodnews	0.0	0.0	0.3	0.83	0.2
Bristol Bay	Togiak	0.1	0.0	0.4	0.76	0.2
	Igushik	0.0	0.0	0.0	0.90	0.1
	Wood	0.0	0.0	0.0	0.91	0.1
	Nushagak	0.0	0.0	0.0	0.92	0.0
	Kvichak	0.0	0.0	0.0	0.92	0.0
	Alagnak	0.0	0.0	0.0	0.92	0.0
	Naknek	0.0	0.0	0.0	0.92	0.0
	Egegik	0.0	0.0	0.0	0.92	0.0
	Ugashik	0.0	0.0	0.0	0.92	0.0
North Peninsula	Cinder	0.0	0.0	0.0	0.92	0.1
	Meshik	0.0	0.0	0.0	0.92	0.1
	Ilnik	0.0	0.0	0.0	0.91	0.1
	Sandy	0.0	0.0	0.0	0.89	0.2
	Bear	0.2	0.0	1.1	0.75	0.4
	Nelson	0.0	0.0	0.0	0.92	0.0
	NW Dist.-BH	0.1	0.0	0.5	0.83	0.3
South Peninsula		0.0	0.0	0.0	0.89	0.1
Chignik	Black Lake	0.4	0.0	2.1	0.34	0.8
	Chignik Lake	36.6	32.3	41.0	0.00	2.7
East of WASSIP		62.6	58.2	66.8	0.00	2.6

*Note:* Stock composition estimates may not sum to 100% due to rounding error.

*Note:* H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Appendix C3.—East Stepovak and Stepovak Flats sections, Southeastern District Mainland area, Southeastern District, Alaska Peninsula Area, Westward Region, 2008, temporal stratum 3. Subregional reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 3 (7/26–8/20; H=61,811; n=398)				
		Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%		
Norton Sound		0.0	0.0	0.0	0.92	0.0
Kuskokwim Bay	Kuskokwim R.	0.0	0.0	0.0	0.92	0.0
	Kanektok	0.0	0.0	0.1	0.88	0.1
	Goodnews	0.5	0.0	1.6	0.42	0.6
Bristol Bay	Togiak	0.0	0.0	0.0	0.89	0.1
	Igushik	0.1	0.0	0.5	0.79	0.2
	Wood	0.0	0.0	0.0	0.92	0.0
	Nushagak	0.0	0.0	0.0	0.92	0.1
	Kvichak	0.0	0.0	0.3	0.79	0.1
	Alagnak	0.0	0.0	0.0	0.92	0.0
	Naknek	0.0	0.0	0.0	0.92	0.0
	Egegik	0.0	0.0	0.0	0.92	0.0
	Ugashik	0.0	0.0	0.0	0.91	0.1
North Peninsula	Cinder	0.2	0.0	0.8	0.46	0.3
	Meshik	0.0	0.0	0.1	0.88	0.1
	Ilnik	0.0	0.0	0.0	0.92	0.0
	Sandy	0.0	0.0	0.0	0.91	0.1
	Bear	0.9	0.2	1.9	0.00	0.5
	Nelson	0.0	0.0	0.0	0.92	0.0
	NW Dist.-BH	0.0	0.0	0.1	0.88	0.1
South Peninsula		0.0	0.0	0.0	0.91	0.1
Chignik	Black Lake	0.0	0.0	0.0	0.90	0.2
	Chignik Lake	45.3	40.9	49.6	0.00	2.6
East of WASSIP		53.0	48.6	57.4	0.00	2.7

*Note:* Stock composition estimates may not sum to 100% due to rounding error.

*Note:* H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Appendix C4.–Northwest Stepovak Section, Southeastern District Mainland area, Southeastern District, Alaska Peninsula Area, Westward Region, 2008, temporal strata 1–3. Subregional reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (7/3–7/5; H=6,616; n=199)					Stratum 2 (7/7–7/25; H=25,053; n=390)					Stratum 3 (7/26–8/20; H=10,245; n=385)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%				5%	95%		
Norton Sound		0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.1
Kuskokwim Bay	Kuskokwim R.	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Kanektok	0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1
	Goodnews	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0	0.8	0.0	2.1	0.10	0.7
Bristol Bay	Togiak	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.0	0.1	0.0	0.4	0.86	0.3
	Igushik	0.0	0.0	0.0	0.90	0.1	0.1	0.0	0.4	0.80	0.2	0.0	0.0	0.0	0.91	0.1
	Wood	0.0	0.0	0.1	0.88	0.2	0.1	0.0	0.4	0.76	0.2	0.0	0.0	0.0	0.92	0.0
	Nushagak	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.1	0.87	0.2
	Kvichak	0.0	0.0	0.0	0.91	0.1	0.3	0.0	1.1	0.00	0.4	0.0	0.0	0.0	0.92	0.0
	Alagnak	0.6	0.0	1.8	0.00	0.6	0.1	0.0	0.7	0.53	0.3	0.0	0.0	0.0	0.91	0.1
	Naknek	0.2	0.0	1.1	0.73	0.5	0.1	0.0	0.8	0.60	0.3	0.0	0.0	0.0	0.92	0.0
	Egegik	2.4	0.7	4.7	0.01	1.2	0.3	0.0	1.4	0.52	0.5	0.0	0.0	0.0	0.92	0.0
	Ugashik	0.1	0.0	0.1	0.88	0.3	0.4	0.0	1.9	0.64	0.7	0.0	0.0	0.0	0.92	0.0
North Peninsula	Cinder	0.0	0.0	0.0	0.91	0.1	0.2	0.0	1.5	0.75	0.6	0.0	0.0	0.0	0.89	0.2
	Meshik	0.0	0.0	0.0	0.89	0.2	0.2	0.0	1.6	0.74	0.6	0.1	0.0	0.4	0.83	0.2
	Ilnik	0.0	0.0	0.0	0.91	0.1	0.1	0.0	0.7	0.82	0.4	0.0	0.0	0.0	0.89	0.2
	Sandy	0.0	0.0	0.1	0.87	0.2	0.0	0.0	0.1	0.88	0.2	0.0	0.0	0.3	0.85	0.2
	Bear	0.0	0.0	0.0	0.91	0.1	1.2	0.0	3.0	0.19	1.0	0.0	0.0	0.0	0.90	0.1
	Nelson	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	NW Dist.-BH	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0	0.1	0.0	0.6	0.79	0.2
South Peninsula		26.9	21.7	32.3	0.00	3.2	38.7	34.6	42.9	0.00	2.5	6.8	4.6	9.3	0.00	1.4
Chignik	Black Lake	51.6	44.6	58.6	0.00	4.3	28.0	23.2	32.9	0.00	3.0	2.0	0.0	4.4	0.01	1.3
	Chignik Lake	7.9	3.4	13.1	0.00	3.0	15.5	11.3	20.1	0.00	2.7	65.7	61.0	70.3	0.00	2.8
East of WASSIP		10.2	6.8	14.0	0.00	2.2	14.6	11.5	17.9	0.00	1.9	24.3	20.4	28.3	0.00	2.4

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Appendix C5.–Southwest Stepovak, Balboa Bay, and Beaver Bay sections (statistical areas 281-70, 281-80, 281-90), Southeastern District Mainland area, Southeastern District, Alaska Peninsula Area, Westward Region, 2006, temporal strata 2–3. Subregional reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 2 (7/20-7/21; H=26,690; n=399)					Stratum 3 (7/26-8/23; H=62,253; n=297)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%		
Norton Sound		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
Kuskokwim Bay	Kuskokwim R.	0.2	0.0	0.7	0.28	0.2	0.0	0.0	0.0	0.92	0.0
	Kanektok	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Goodnews	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1
Bristol Bay	Togiak	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.91	0.1
	Igushik	0.1	0.0	0.5	0.75	0.2	0.0	0.0	0.0	0.92	0.1
	Wood	0.0	0.0	0.1	0.88	0.1	0.0	0.0	0.0	0.92	0.0
	Nushagak	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0
	Kvichak	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1
	Alagnak	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.1
	Naknek	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.1
	Egegik	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.89	0.1
	Ugashik	0.0	0.0	0.0	0.92	0.0	0.1	0.0	0.6	0.75	0.3
North Peninsula	Cinder	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.1	0.88	0.2
	Meshik	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.2	0.87	0.2
	Ilnik	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.91	0.1
	Sandy	0.2	0.0	0.8	0.57	0.3	0.0	0.0	0.1	0.88	0.2
	Bear	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.91	0.1
	Nelson	0.0	0.0	0.0	0.92	0.0	0.1	0.0	0.4	0.80	0.2
	NW Dist.-BH	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1
South Peninsula		0.7	0.0	1.6	0.14	0.5	0.0	0.0	0.0	0.90	0.1
Chignik	Black Lake	22.7	18.2	27.4	0.00	2.8	11.0	7.1	15.2	0.00	2.5
	Chignik Lake	29.8	24.8	35.0	0.00	3.1	39.0	33.6	44.5	0.00	3.3
East of WASSIP		46.4	42.1	50.7	0.00	2.6	49.6	44.7	54.5	0.00	3.0

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Appendix C6.–Southwest Stepovak, Balboa Bay, and Beaver Bay sections (statistical areas 281-70, 281-80, 281-90), Southeastern District Mainland area, Southeastern District, Alaska Peninsula Area, Westward Region, 2007, temporal stratum 3. Subregional reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 3 (8/1–8/20; H=73,512; n=399)				
		Mean	90% CI		P=0	SD
Regional	Subregional		5%	95%		
Norton Sound		0.0	0.0	0.0	0.91	0.1
Kuskokwim Bay	Kuskokwim R.	0.0	0.0	0.0	0.92	0.0
	Kanektok	0.0	0.0	0.0	0.91	0.1
	Goodnews	0.0	0.0	0.0	0.90	0.1
Bristol Bay	Togiak	0.0	0.0	0.0	0.91	0.1
	Igushik	0.0	0.0	0.0	0.91	0.1
	Wood	0.0	0.0	0.0	0.92	0.0
	Nushagak	0.0	0.0	0.0	0.91	0.1
	Kvichak	0.1	0.0	0.4	0.83	0.2
	Alagnak	0.0	0.0	0.0	0.92	0.0
	Naknek	0.6	0.1	1.5	0.00	0.5
	Egegik	0.0	0.0	0.1	0.88	0.1
	Ugashik	0.1	0.0	0.6	0.80	0.3
North Peninsula	Cinder	0.0	0.0	0.0	0.92	0.1
	Meshik	0.0	0.0	0.0	0.92	0.0
	Ilnik	0.2	0.0	1.4	0.80	0.5
	Sandy	0.2	0.0	1.2	0.66	0.4
	Bear	0.0	0.0	0.0	0.90	0.1
	Nelson	0.1	0.0	0.4	0.84	0.2
	NW Dist.-BH	0.0	0.0	0.0	0.89	0.2
South Peninsula		0.0	0.0	0.0	0.92	0.1
Chignik	Black Lake	0.5	0.0	2.2	0.27	0.8
	Chignik Lake	36.5	32.2	40.8	0.00	2.6
East of WASSIP		61.8	57.4	66.0	0.00	2.6

*Note:* Stock composition estimates may not sum to 100% due to rounding error.

*Note:* H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Appendix C7.–Southwest Stepovak, Balboa Bay, and Beaver Bay sections (statistical areas 281-70, 281-80, 281-90), Southeastern District Mainland area, Southeastern District, Alaska Peninsula Area, Westward Region, 2008, temporal stratum 3. Subregional reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 3 (7/26–8/20; H=46,093; n=398)				
		Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%		
Norton Sound		0.0	0.0	0.0	0.92	0.1
Kuskokwim Bay	Kuskokwim R.	0.0	0.0	0.0	0.92	0.1
	Kanektok	0.3	0.0	0.8	0.00	0.3
	Goodnews	0.0	0.0	0.0	0.91	0.1
Bristol Bay	Togiak	0.0	0.0	0.0	0.91	0.1
	Igushik	1.1	0.0	2.4	0.16	0.7
	Wood	0.2	0.0	1.3	0.75	0.5
	Nushagak	0.0	0.0	0.0	0.91	0.1
	Kvichak	0.1	0.0	0.6	0.74	0.3
	Alagnak	0.0	0.0	0.0	0.92	0.0
	Naknek	0.7	0.1	1.7	0.01	0.5
	Egegik	0.1	0.0	0.8	0.75	0.3
	Ugashik	0.0	0.0	0.0	0.89	0.1
North Peninsula	Cinder	0.1	0.0	0.8	0.83	0.4
	Meshik	1.6	0.0	4.0	0.29	1.4
	Ilnik	1.9	0.0	4.4	0.22	1.5
	Sandy	0.0	0.0	0.0	0.90	0.1
	Bear	3.3	1.7	5.4	0.00	1.1
	Nelson	0.0	0.0	0.0	0.92	0.0
	NW Dist.-BH	0.0	0.0	0.0	0.92	0.0
South Peninsula		3.8	2.2	5.8	0.00	1.1
Chignik	Black Lake	0.0	0.0	0.0	0.90	0.2
	Chignik Lake	51.3	46.8	55.8	0.00	2.7
East of WASSIP		35.4	31.1	39.8	0.00	2.7

*Note:* Stock composition estimates may not sum to 100% due to rounding error.

*Note:* H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.



**APPENDIX D: (JUNE), SHUMAGIN ISLANDS SECTION,  
DOLGOI ISLAND AREA, IKATAN AREA AND UNIMAK  
DISTRICT, ALASKA PENINSULA AREA, WESTWARD  
REGION, SUBREGIONAL STOCK COMPOSITION  
ESTIMATES**

Appendix D1.–Shumagin Islands Section (June; statistical areas all 282-XX), Alaska Peninsula Area, Westward Region, 2006, temporal strata 1–3. Reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (6/7–6/13; H=105,356; n=400)					Stratum 2 (6/14–6/20; H=176,663; n=399)					Stratum 3 (6/22–6/29; H=159,219; n=396)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%				5%	95%		
Norton Sound		0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.0
Kuskokwim Bay	Kuskokwim R.	0.0	0.0	0.0	0.92	0.1	0.8	0.0	2.7	0.49	1.0	0.0	0.0	0.0	0.90	0.3
	Kanektok	0.0	0.0	0.0	0.91	0.2	0.3	0.0	1.0	0.39	0.4	0.0	0.0	0.1	0.88	0.1
	Goodnews	0.6	0.0	1.8	0.24	0.6	0.5	0.0	1.8	0.39	0.7	1.3	0.0	2.9	0.18	0.9
Bristol Bay	Togiak	0.0	0.0	0.1	0.88	0.1	0.3	0.0	1.2	0.52	0.4	0.6	0.0	1.8	0.03	0.6
	Igushik	0.1	0.0	0.4	0.82	0.4	0.1	0.0	1.1	0.82	0.5	3.2	1.1	5.5	0.03	1.4
	Wood	22.6	19.0	26.3	0.00	2.3	14.9	11.8	18.2	0.00	1.9	9.4	6.7	12.6	0.00	1.8
	Nushagak	4.0	2.2	6.8	0.00	1.4	1.0	0.0	2.7	0.30	1.0	2.3	1.1	4.0	0.01	0.9
	Kvichak	2.5	1.0	4.4	0.00	1.1	2.6	1.0	4.5	0.00	1.1	2.4	0.9	4.3	0.00	1.0
	Alagnak	2.5	1.2	4.1	0.00	0.9	2.4	1.2	3.9	0.00	0.8	6.9	4.7	9.3	0.00	1.4
	Naknek	4.5	2.5	6.7	0.00	1.3	7.3	4.9	10.2	0.00	1.6	9.5	6.9	12.5	0.00	1.7
	Egegik	7.8	4.9	11.3	0.00	2.0	15.1	11.1	19.4	0.00	2.5	20.0	15.0	25.2	0.00	3.1
	Ugashik	2.0	0.0	4.7	0.10	1.5	4.6	1.2	7.8	0.03	2.0	7.1	3.2	11.5	0.00	2.6
North Peninsula	Cinder	0.0	0.0	0.0	0.91	0.1	0.1	0.0	0.9	0.77	0.4	0.0	0.0	0.0	0.91	0.1
	Meshik	0.2	0.0	1.0	0.70	0.4	0.3	0.0	1.7	0.59	0.6	0.0	0.0	0.0	0.92	0.1
	Ilnik	2.1	0.6	3.7	0.02	1.0	0.0	0.0	0.1	0.84	0.2	0.0	0.0	0.0	0.91	0.1
	Sandy	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.1
	Bear	0.3	0.0	1.4	0.56	0.5	1.5	0.0	3.5	0.17	1.2	2.2	0.9	3.9	0.00	1.0
	Nelson	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.1	0.88	0.1	0.0	0.0	0.0	0.92	0.0
	NW Dist.-BH	0.1	0.0	0.7	0.57	0.3	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
South Peninsula		0.0	0.0	0.0	0.91	0.1	0.8	0.2	1.6	0.00	0.4	0.1	0.0	0.7	0.84	0.4
Chignik	Black Lake	7.1	5.1	9.4	0.00	1.3	28.8	24.9	32.9	0.00	2.4	9.2	6.6	12.2	0.00	1.7
	Chignik Lake	0.0	0.0	0.1	0.84	0.2	0.1	0.0	0.2	0.87	0.3	2.2	0.0	4.3	0.06	1.2
East of WASSIP		43.6	39.4	47.8	0.00	2.6	18.6	15.4	22.0	0.00	2.0	23.5	19.9	27.4	0.00	2.3

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Appendix D2.–Shumagin Islands Section (June; statistical areas all 282-XX), Alaska Peninsula Area, Westward Region, 2007, temporal strata 1–3. Reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (6/7–6/13; H=118,519; n=399)					Stratum 2 (6/14–6/20; H=310,690; n=397)					Stratum 3 (6/22–6/29; H=422,989; n=395)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%				5%	95%		
Norton Sound		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.91	0.1
Kuskokwim Bay	Kuskokwim R.	0.0	0.0	0.0	0.92	0.0	0.3	0.0	1.0	0.13	0.3	0.0	0.0	0.0	0.91	0.1
	Kanektok	0.9	0.2	1.8	0.00	0.5	1.1	0.3	2.3	0.00	0.6	0.5	0.0	1.9	0.40	0.7
	Goodnews	0.2	0.0	1.2	0.65	0.4	0.1	0.0	0.3	0.84	0.2	0.5	0.0	2.4	0.65	0.9
Bristol Bay	Togiak	0.2	0.0	0.9	0.69	0.3	0.2	0.0	0.8	0.22	0.3	0.9	0.0	2.3	0.25	0.8
	Igushik	2.0	0.0	5.0	0.16	1.7	5.6	0.8	9.6	0.04	2.5	5.0	2.0	8.5	0.00	2.0
	Wood	20.9	16.5	25.5	0.00	2.7	23.3	18.2	28.7	0.00	3.2	14.5	10.7	18.5	0.00	2.4
	Nushagak	7.5	4.6	10.7	0.00	1.9	3.2	0.2	5.9	0.03	1.6	6.8	3.9	9.9	0.00	1.8
	Kvichak	5.6	3.2	8.3	0.00	1.6	7.0	4.3	10.0	0.00	1.7	4.6	2.1	7.6	0.00	1.7
	Alagnak	6.1	4.0	8.5	0.00	1.4	7.2	5.0	9.7	0.00	1.4	12.4	9.5	15.6	0.00	1.9
	Naknek	13.4	10.0	17.0	0.00	2.1	13.7	10.5	17.2	0.00	2.0	18.4	14.5	22.6	0.00	2.5
	Egegik	12.7	8.5	17.3	0.00	2.7	19.4	14.4	24.5	0.00	3.1	12.4	8.0	17.4	0.00	2.9
	Ugashik	11.8	7.7	16.3	0.00	2.6	9.7	5.4	14.4	0.00	2.7	14.4	9.5	19.3	0.00	3.0
North Peninsula	Cinder	0.1	0.0	1.1	0.85	0.5	0.0	0.0	0.1	0.88	0.2	0.3	0.0	1.5	0.62	0.6
	Meshik	0.1	0.0	0.3	0.85	0.3	0.5	0.0	2.2	0.56	0.8	0.2	0.0	1.2	0.73	0.5
	Ilnik	0.0	0.0	0.0	0.91	0.1	0.1	0.0	0.4	0.84	0.3	0.4	0.0	1.9	0.60	0.7
	Sandy	0.2	0.0	0.9	0.69	0.4	0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.3	0.86	0.2
	Bear	1.0	0.0	2.2	0.06	0.7	0.1	0.0	1.0	0.76	0.4	0.0	0.0	0.0	0.90	0.1
	Nelson	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.89	0.1	0.4	0.0	1.1	0.17	0.4
	NW Dist.-BH	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
South Peninsula		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.1	
Chignik	Black Lake	1.0	0.0	2.2	0.07	0.6	0.2	0.0	1.4	0.72	0.5	3.3	1.8	5.0	0.00	1.0
	Chignik Lake	0.1	0.0	0.8	0.84	0.3	2.1	0.8	3.7	0.01	0.9	0.1	0.0	0.5	0.77	0.3
East of WASSIP		16.5	13.4	19.7	0.00	1.9	6.2	4.1	8.7	0.00	1.4	4.9	3.2	7.0	0.00	1.2

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Appendix D3.–Shumagin Islands Section (June; statistical areas all 282-XX), Alaska Peninsula Area, Westward Region, 2008, temporal strata 2–3. Reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 2 (6/14–6/20; H=309,801; n=393)					Stratum 3 (6/22–6/29; H=339,204; n=399)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%		
Norton Sound		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
Kuskokwim Bay	Kuskokwim R.	0.0	0.0	0.0	0.91	0.2	0.3	0.0	0.8	0.00	0.3
	Kanektok	0.0	0.0	0.0	0.90	0.1	2.1	0.0	5.7	0.38	2.1
	Goodnews	0.0	0.0	0.1	0.78	0.1	5.0	2.8	7.9	0.00	1.6
Bristol Bay	Togiak	0.6	0.0	1.5	0.16	0.5	0.1	0.0	0.2	0.86	0.3
	Igushik	5.5	0.8	9.8	0.03	2.6	4.2	0.0	7.8	0.04	2.2
	Wood	15.4	10.8	20.7	0.00	3.0	13.7	9.9	18.1	0.00	2.5
	Nushagak	7.2	4.2	10.4	0.00	1.9	5.0	2.3	7.9	0.00	1.7
	Kvichak	12.7	9.2	16.7	0.00	2.3	9.4	6.5	12.7	0.00	1.9
	Alagnak	2.5	1.2	4.2	0.00	0.9	5.5	3.5	7.9	0.00	1.3
	Naknek	12.2	8.8	16.1	0.00	2.2	8.7	6.1	11.7	0.00	1.7
	Egegik	21.1	16.6	25.8	0.00	2.8	17.7	13.2	23.0	0.00	3.0
	Ugashik	8.3	4.6	12.3	0.00	2.4	9.6	5.2	14.0	0.00	2.7
North Peninsula	Cinder	0.1	0.0	0.9	0.83	0.4	0.1	0.0	1.0	0.77	0.4
	Meshik	0.3	0.0	1.3	0.55	0.5	0.3	0.0	1.6	0.59	0.6
	Ilnik	0.1	0.0	0.8	0.81	0.3	0.1	0.0	1.1	0.78	0.4
	Sandy	0.0	0.0	0.0	0.92	0.0	1.0	0.0	2.4	0.09	0.7
	Bear	1.1	0.0	2.6	0.15	0.8	0.7	0.0	1.8	0.15	0.6
	Nelson	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	NW Dist.-BH	0.0	0.0	0.0	0.92	0.0	0.7	0.1	1.5	0.00	0.5
South Peninsula		0.0	0.0	0.0	0.92	0.0	0.1	0.0	0.5	0.76	0.2
Chignik	Black Lake	3.5	2.0	5.2	0.00	1.0	4.7	2.8	6.8	0.00	1.2
	Chignik Lake	0.0	0.0	0.0	0.88	0.1	0.3	0.0	2.0	0.68	0.7
East of WASSIP		9.4	7.0	12.1	0.00	1.6	10.6	8.1	13.4	0.00	1.6

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Appendix D4.–Dolgoi Island area (June; statistical areas 283-XX, 284-00 through 284-42), Alaska Peninsula Area, Westward Region, 2006, temporal strata 1–3. Reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (6/7–6/13; H=47,177; n=363)					Stratum 2 (6/14–6/20; H=78,065; n=395)					Stratum 3 (6/22–6/29; H=117,973; n=388)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%				5%	95%		
Norton Sound		0.0	0.0	0.0	0.92	0.0	0.1	0.0	0.4	0.80	0.2	0.0	0.0	0.0	0.92	0.0
Kuskokwim Bay	Kuskokwim R.	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.1	0.88	0.1	0.0	0.0	0.0	0.92	0.0
	Kanektok	0.1	0.0	0.4	0.78	0.2	0.1	0.0	0.8	0.81	0.3	0.0	0.0	0.0	0.89	0.1
	Goodnews	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.92	0.1
Bristol Bay	Togiak	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.91	0.1
	Igushik	0.0	0.0	0.1	0.88	0.2	0.1	0.0	0.2	0.87	0.3	0.6	0.0	2.0	0.44	0.7
	Wood	1.9	0.8	3.3	0.00	0.8	3.1	1.6	4.9	0.00	1.0	1.7	0.5	3.3	0.00	0.9
	Nushagak	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.3	0.84	0.2	0.1	0.0	0.5	0.84	0.3
	Kvichak	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.1
	Alagnak	0.0	0.0	0.0	0.89	0.1	2.3	1.1	3.8	0.00	0.8	0.0	0.0	0.0	0.86	0.0
	Naknek	0.0	0.0	0.1	0.89	0.2	1.1	0.3	2.3	0.00	0.6	0.0	0.0	0.2	0.86	0.2
	Egegik	3.2	1.6	5.0	0.00	1.1	3.0	1.6	4.8	0.00	1.0	2.8	1.4	4.4	0.00	0.9
	Ugashik	0.1	0.0	0.6	0.85	0.4	0.3	0.0	1.8	0.65	0.6	0.0	0.0	0.0	0.91	0.1
North Peninsula	Cinder	0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.2	0.87	0.2	0.0	0.0	0.2	0.86	0.2
	Meshik	0.0	0.0	0.0	0.92	0.0	0.3	0.0	1.9	0.75	0.7	0.0	0.0	0.2	0.86	0.2
	Ilnik	0.1	0.0	0.6	0.83	0.3	0.0	0.0	0.0	0.92	0.1	0.6	0.0	1.8	0.17	0.6
	Sandy	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1
	Bear	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.2	0.87	0.1
	Nelson	0.0	0.0	0.0	0.92	0.0	0.2	0.0	0.7	0.39	0.3	0.0	0.0	0.0	0.92	0.0
	NW Dist.-BH	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.90	0.1
South Peninsula		0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.1	0.87	0.2	0.3	0.0	1.0	0.05	0.3
Chignik	Black Lake	54.8	50.2	59.3	0.00	2.8	72.3	68.3	76.0	0.00	2.3	73.9	68.6	78.1	0.00	2.9
	Chignik Lake	0.3	0.0	2.3	0.56	0.9	0.1	0.0	0.1	0.89	0.4	0.8	0.0	5.2	0.73	1.8
East of WASSIP		39.5	35.1	43.9	0.00	2.7	17.1	14.0	20.4	0.00	1.9	19.1	15.8	22.6	0.00	2.1

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Appendix D5.–Dolgoi Island area (June; statistical areas 283-XX, 284-00 through 284-42), Alaska Peninsula Area, Westward Region, 2007, temporal strata 1–3. Reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (6/7–6/13; H=13,111; n=422)					Stratum 2 (6/14–6/20; H=19,576; n=397)					Stratum 3 (6/22–6/29; H=47,613; n=395)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%				5%	95%		
Norton Sound		0.1	0.0	0.9	0.71	0.4	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.1
Kuskokwim Bay	Kuskokwim R.	0.0	0.0	0.0	0.88	0.1	0.1	0.0	0.3	0.87	0.2	0.0	0.0	0.0	0.92	0.0
	Kanektok	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.1	0.87	0.1	0.8	0.2	1.6	0.00	0.4
	Goodnews	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.1	0.88	0.1	0.2	0.0	1.1	0.64	0.4
Bristol Bay	Togiak	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.91	0.1	0.1	0.0	0.8	0.76	0.3
	Igushik	1.4	0.0	2.9	0.11	0.9	1.3	0.0	3.6	0.28	1.3	3.7	1.2	6.6	0.00	1.7
	Wood	3.1	1.6	5.0	0.00	1.0	6.3	3.7	9.1	0.00	1.7	9.9	6.6	13.4	0.00	2.1
	Nushagak	0.3	0.0	1.1	0.34	0.4	1.6	0.2	3.2	0.04	0.9	0.0	0.0	0.1	0.86	0.2
	Kvichak	0.3	0.0	1.6	0.50	0.6	3.9	2.0	6.1	0.00	1.2	4.3	2.5	6.5	0.00	1.2
	Alagnak	1.4	0.4	2.7	0.01	0.7	0.3	0.0	1.6	0.63	0.6	7.4	5.1	9.9	0.00	1.5
	Naknek	2.1	0.8	3.8	0.00	0.9	1.9	0.8	3.4	0.00	0.8	4.0	2.2	6.1	0.00	1.2
	Egegik	3.8	0.0	7.9	0.11	2.6	3.9	0.9	7.0	0.02	1.8	8.7	5.6	12.1	0.00	2.0
	Ugashik	2.8	0.0	7.5	0.18	2.6	4.4	1.7	7.9	0.01	1.9	5.5	2.8	8.4	0.00	1.7
North Peninsula	Cinder	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.90	0.1	0.1	0.0	0.4	0.84	0.3
	Meshik	0.1	0.0	0.8	0.72	0.3	0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.91	0.1
	Ilnik	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.91	0.1	0.9	0.0	2.6	0.27	0.9
	Sandy	0.0	0.0	0.0	0.92	0.0	0.2	0.0	1.3	0.67	0.5	0.0	0.0	0.0	0.92	0.0
	Bear	0.2	0.0	1.4	0.68	0.5	0.2	0.0	1.1	0.73	0.4	0.0	0.0	0.0	0.92	0.0
	Nelson	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1	0.3	0.0	0.9	0.10	0.3
	NW Dist.-BH	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
South Peninsula		0.0	0.0	0.0	0.92	0.1	0.1	0.0	1.0	0.85	0.5	0.0	0.0	0.0	0.89	0.2
Chignik	Black Lake	21.6	17.5	25.9	0.00	2.5	28.1	23.4	32.7	0.00	2.8	15.9	11.9	20.1	0.00	2.5
	Chignik Lake	6.5	3.5	10.0	0.00	2.0	1.2	0.0	4.9	0.34	1.8	2.6	0.0	5.6	0.17	1.8
East of WASSIP		56.2	52.1	60.4	0.00	2.5	46.4	42.1	50.8	0.00	2.7	35.8	31.7	40.0	0.00	2.5

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Appendix D6.–Dolgoi Island area (June; statistical areas 283-XX, 284-00 through 284-42), Alaska Peninsula Area, Westward Region, 2008, temporal strata 1–3. Reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (6/7–6/8; H=399; n=304)					Stratum 2 (6/14–6/20; H=12,742; n=504)					Stratum 3 (6/22–6/29; H=22,197; n=393)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%				5%	95%		
Norton Sound		0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.1
Kuskokwim Bay	Kuskokwim R.	1.0	0.0	2.4	0.04	0.7	0.1	0.0	0.2	0.86	0.2	0.0	0.0	0.0	0.92	0.1
	Kanektok	0.0	0.0	0.0	0.90	0.3	0.1	0.0	0.7	0.86	0.4	0.4	0.0	2.3	0.56	0.8
	Goodnews	0.3	0.0	1.4	0.61	0.5	0.0	0.0	0.0	0.91	0.1	0.1	0.0	1.1	0.82	0.5
Bristol Bay	Togiak	0.0	0.0	0.1	0.87	0.2	0.0	0.0	0.0	0.92	0.1	1.1	0.1	2.5	0.00	0.7
	Igushik	0.3	0.0	2.5	0.75	0.9	0.2	0.0	1.3	0.81	0.5	0.4	0.0	2.2	0.70	0.8
	Wood	3.2	0.8	5.6	0.02	1.4	7.9	5.3	10.6	0.00	1.6	6.1	3.8	8.7	0.00	1.5
	Nushagak	0.3	0.0	2.4	0.69	0.8	3.5	1.3	5.9	0.01	1.4	4.7	2.5	7.2	0.00	1.4
	Kvichak	3.7	1.7	6.1	0.00	1.3	9.1	6.6	11.7	0.00	1.6	9.0	6.1	12.2	0.00	1.8
	Alagnak	0.0	0.0	0.0	0.84	0.1	1.4	0.3	2.7	0.00	0.7	2.9	1.5	4.6	0.00	1.0
	Naknek	2.9	1.2	5.0	0.00	1.2	6.5	4.4	9.0	0.00	1.4	4.9	2.8	7.4	0.00	1.4
	Egegik	7.5	4.3	11.5	0.00	2.2	15.4	11.2	19.7	0.00	2.6	12.5	8.4	17.2	0.00	2.7
	Ugashik	6.5	3.0	10.4	0.00	2.3	6.9	3.3	11.0	0.00	2.4	6.5	2.6	10.8	0.00	2.5
North Peninsula	Cinder	0.8	0.0	3.5	0.55	1.3	0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.92	0.0
	Meshik	0.5	0.0	2.7	0.61	1.0	0.3	0.0	1.5	0.66	0.6	0.0	0.0	0.0	0.92	0.0
	Ilnik	0.5	0.0	1.4	0.00	0.5	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Sandy	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.89	0.1	0.0	0.0	0.0	0.92	0.0
	Bear	0.5	0.0	2.1	0.41	0.7	0.6	0.0	1.9	0.38	0.7	0.0	0.0	0.0	0.92	0.1
	Nelson	1.1	0.3	2.3	0.00	0.6	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	NW Dist.-BH	0.0	0.0	0.0	0.89	0.2	0.0	0.0	0.0	0.93	0.0	0.0	0.0	0.0	0.90	0.1
South Peninsula		0.4	0.0	1.2	0.11	0.4	0.2	0.0	1.1	0.74	0.4	0.0	0.0	0.0	0.90	0.1
Chignik	Black Lake	42.3	37.3	47.3	0.00	3.1	40.6	36.9	44.4	0.00	2.3	25.8	21.7	30.1	0.00	2.6
	Chignik Lake	0.7	0.0	3.0	0.43	1.1	0.0	0.0	0.0	0.89	0.2	4.7	2.2	7.5	0.00	1.6
East of WASSIP		27.4	22.9	32.0	0.00	2.8	7.4	5.4	9.5	0.00	1.3	20.9	17.5	24.4	0.00	2.1

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Appendix D7.—Ikatan area (June; statistical areas 284-45 through 284-99), Alaska Peninsula Area, Westward Region, 2006, temporal strata 1–3. Reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (6/7–6/13; H=5,330; n=639)					Stratum 2 (6/17–6/20; H=20,182; n=339)					Stratum 3 (6/22–6/29; H=13,326; n=394)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%				5%	95%		
Norton Sound		0.0	0.0	0.0	0.92	0.0	0.2	0.0	1.3	0.81	0.5	0.0	0.0	0.0	0.92	0.1
Kuskokwim Bay	Kuskokwim R.	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.6	0.0	2.6	0.60	0.9
	Kanektok	0.4	0.0	1.0	0.12	0.4	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.90	0.1
	Goodnews	0.0	0.0	0.0	0.89	0.1	0.2	0.0	0.9	0.69	0.4	0.1	0.0	1.0	0.74	0.4
Bristol Bay	Togiak	0.3	0.0	0.7	0.09	0.2	0.0	0.0	0.0	0.90	0.1	0.8	0.0	2.0	0.10	0.6
	Igushik	0.0	0.0	0.0	0.87	0.1	0.0	0.0	0.0	0.90	0.2	2.6	0.0	5.5	0.18	1.8
	Wood	17.8	15.1	20.7	0.00	1.7	27.3	23.2	31.7	0.00	2.6	12.2	8.6	16.2	0.00	2.3
	Nushagak	5.1	3.2	7.2	0.00	1.3	2.2	0.9	3.7	0.00	0.9	1.6	0.0	3.5	0.04	1.2
	Kvichak	4.3	2.7	6.1	0.00	1.1	4.6	2.3	7.4	0.00	1.6	4.7	2.5	7.3	0.00	1.5
	Alagnak	0.9	0.0	1.9	0.03	0.6	5.6	3.6	8.0	0.00	1.4	6.5	4.4	8.8	0.00	1.4
	Naknek	3.1	1.7	4.7	0.00	0.9	9.3	6.0	13.0	0.00	2.1	6.6	4.1	9.4	0.00	1.6
	Egegik	22.3	18.6	26.1	0.00	2.3	15.8	10.4	21.5	0.00	3.4	7.9	4.8	11.7	0.00	2.1
	Ugashik	5.0	2.4	7.8	0.00	1.7	5.8	1.8	10.2	0.01	2.6	9.9	6.3	13.8	0.00	2.3
North Peninsula	Cinder	0.0	0.0	0.1	0.88	0.3	0.0	0.0	0.0	0.90	0.1	0.1	0.0	0.5	0.85	0.4
	Meshik	0.0	0.0	0.2	0.87	0.2	0.0	0.0	0.0	0.91	0.1	1.0	0.0	3.5	0.42	1.3
	Ilnik	3.4	1.9	5.1	0.00	1.0	0.0	0.0	0.1	0.77	0.1	0.0	0.0	0.0	0.90	0.2
	Sandy	0.0	0.0	0.0	0.92	0.0	0.9	0.1	2.1	0.02	0.6	0.9	0.0	2.4	0.16	0.8
	Bear	2.3	1.1	3.7	0.00	0.8	0.3	0.0	1.4	0.58	0.5	2.7	1.1	4.8	0.00	1.2
	Nelson	0.0	0.0	0.3	0.70	0.1	0.3	0.0	1.0	0.00	0.3	0.0	0.0	0.0	0.92	0.0
	NW Dist.-BH	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.1	0.88	0.1
South Peninsula		0.6	0.2	1.1	0.00	0.3	0.3	0.0	0.9	0.00	0.3	1.5	0.3	3.7	0.00	1.1
Chignik	Black Lake	10.6	8.6	12.7	0.00	1.3	15.4	12.2	18.8	0.00	2.0	29.7	25.5	33.9	0.00	2.6
	Chignik Lake	0.0	0.0	0.1	0.81	0.1	0.0	0.0	0.1	0.88	0.2	0.5	0.0	3.2	0.72	1.1
East of WASSIP		24.0	21.2	27.0	0.00	1.8	11.8	9.0	15.0	0.00	1.8	10.1	7.5	13.0	0.00	1.7

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.



Appendix D8.—Ikatan area (June; statistical areas 284-45 through 284-99), Alaska Peninsula Area, Westward Region, 2007, temporal strata 1–3. Reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (6/7–6/13; H=70,806; n=397)					Stratum 2 (6/14–6/20; H=84,170; n=370)					Stratum 3 (6/22–6/29; H=31,351; n=326)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%				5%	95%		
Norton Sound		0.5	0.0	2.2	0.58	0.8	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.1
Kuskokwim Bay	Kuskokwim R.	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.1	0.4	0.0	2.1	0.59	0.7
	Kanektok	0.1	0.0	0.5	0.75	0.3	1.8	0.0	4.8	0.01	1.6	0.9	0.0	2.2	0.10	0.8
	Goodnews	2.5	0.8	4.4	0.04	1.1	1.3	0.0	3.2	0.20	1.1	1.1	0.0	3.2	0.34	1.2
Bristol Bay	Togiak	0.1	0.0	0.5	0.84	0.5	0.4	0.0	2.0	0.61	0.7	1.5	0.0	4.7	0.30	1.6
	Igushik	1.2	0.0	4.5	0.29	1.6	9.2	5.1	13.9	0.00	2.7	3.1	0.5	6.2	0.01	1.7
	Wood	24.0	19.6	28.4	0.00	2.7	25.9	20.7	31.3	0.00	3.2	17.8	13.6	22.3	0.00	2.6
	Nushagak	7.7	5.2	10.8	0.00	1.7	2.2	0.0	5.5	0.06	1.8	0.6	0.0	2.8	0.50	1.0
	Kvichak	4.5	2.4	7.2	0.00	1.5	12.1	8.2	16.2	0.00	2.4	6.9	3.5	10.7	0.00	2.2
	Alagnak	2.8	1.4	4.5	0.00	1.0	9.0	6.5	11.9	0.00	1.7	11.9	8.8	15.3	0.00	2.0
	Naknek	6.8	4.4	9.4	0.00	1.5	6.0	3.6	9.0	0.00	1.7	9.2	5.4	13.2	0.00	2.4
	Egegik	18.8	14.1	23.9	0.00	3.0	18.1	12.3	24.7	0.00	3.8	19.8	13.0	26.6	0.00	4.1
	Ugashik	16.7	11.6	22.0	0.00	3.2	9.6	3.6	15.6	0.00	3.6	11.1	5.7	17.2	0.00	3.5
North Peninsula	Cinder	1.9	0.0	4.8	0.25	1.7	0.1	0.0	0.4	0.80	0.3	0.0	0.0	0.1	0.88	0.2
	Meshik	1.1	0.0	5.2	0.61	1.9	0.6	0.0	2.1	0.34	0.7	0.2	0.0	1.4	0.80	0.6
	Ilnik	0.1	0.0	0.1	0.88	0.3	0.0	0.0	0.0	0.91	0.1	0.1	0.0	0.8	0.84	0.4
	Sandy	0.0	0.0	0.0	0.89	0.2	0.0	0.0	0.0	0.91	0.1	0.9	0.0	2.6	0.29	0.9
	Bear	1.8	0.6	3.5	0.00	0.9	0.1	0.0	0.6	0.69	0.2	0.1	0.0	0.8	0.76	0.3
	Nelson	0.3	0.0	0.8	0.02	0.3	0.4	0.0	1.1	0.11	0.4	0.0	0.0	0.1	0.87	0.2
	NW Dist.-BH	0.1	0.0	0.5	0.73	0.2	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.2	0.85	0.2
South Peninsula		0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.89	0.2	
Chignik	Black Lake	3.5	2.0	5.2	0.00	1.0	0.9	0.1	2.1	0.02	0.6	2.3	0.0	4.4	0.11	1.3
	Chignik Lake	0.0	0.0	0.0	0.91	0.1	0.1	0.0	0.5	0.83	0.3	0.4	0.0	2.4	0.60	0.9
East of WASSIP		5.6	3.6	8.0	0.00	1.3	2.2	1.0	3.7	0.00	0.8	11.6	8.5	14.8	0.00	1.9

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Appendix D9.—Ikatan area (June; statistical areas 284-45 through 284-99), Alaska Peninsula Area, Westward Region, 2008, temporal strata 2–3. Reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 2 (6/14–6/20; H=66,125; n=597)					Stratum 3 (6/22–6/29; H=112,885; n=218)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%		
Norton Sound		0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.91	0.1
Kuskokwim Bay	Kuskokwim R.	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.90	0.2
	Kanektok	0.1	0.0	0.4	0.83	0.3	1.3	0.2	3.1	0.01	0.9
	Goodnews	0.3	0.0	1.7	0.60	0.6	0.4	0.0	2.0	0.65	0.7
Bristol Bay	Togiak	0.2	0.0	1.0	0.68	0.4	0.1	0.0	0.6	0.80	0.3
	Igushik	0.9	0.0	3.6	0.46	1.3	2.3	0.0	9.7	0.57	3.6
	Wood	16.2	12.8	19.6	0.00	2.1	19.7	11.9	26.5	0.00	4.4
	Nushagak	8.3	5.7	11.0	0.00	1.6	3.4	0.8	6.7	0.00	1.8
	Kvichak	18.1	15.1	21.3	0.00	1.9	17.4	12.3	22.9	0.00	3.2
	Alagnak	3.2	1.9	4.7	0.00	0.9	8.5	5.2	12.2	0.00	2.1
	Naknek	7.6	5.2	10.2	0.00	1.5	8.5	4.7	13.1	0.00	2.6
	Egegik	31.0	26.9	35.1	0.00	2.5	25.2	17.5	33.7	0.00	4.9
	Ugashik	7.0	4.0	10.1	0.00	1.9	6.7	0.0	13.6	0.06	4.2
North Peninsula	Cinder	0.0	0.0	0.0	0.89	0.1	0.2	0.0	1.4	0.81	0.6
	Meshik	0.1	0.0	0.4	0.82	0.3	0.4	0.0	2.9	0.72	1.1
	Ilnik	0.2	0.0	1.3	0.67	0.5	0.0	0.0	0.0	0.89	0.2
	Sandy	0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.89	0.2
	Bear	1.9	1.0	3.1	0.00	0.7	1.2	0.0	3.1	0.12	1.0
	Nelson	0.3	0.1	0.8	0.00	0.2	0.0	0.0	0.1	0.88	0.2
	NW Dist.-BH	0.0	0.0	0.2	0.86	0.1	0.0	0.0	0.0	0.89	0.2
South Peninsula		0.3	0.1	0.8	0.00	0.2	0.0	0.0	0.0	0.91	0.1
Chignik	Black Lake	2.5	1.4	3.8	0.00	0.7	3.3	1.5	5.6	0.00	1.3
	Chignik Lake	0.1	0.0	0.5	0.83	0.2	0.1	0.0	0.4	0.85	0.3
East of WASSIP		1.8	1.0	2.8	0.00	0.6	1.4	0.3	3.0	0.00	0.9

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Appendix D10.–Unimak District (June), Alaska Peninsula Area, Westward Region, 2006, temporal strata 1–2. Reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (6/7–6/13; H=57,171; n=364)					Stratum 2 (6/14–6/20; H=138,349; n=375)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%		
Norton Sound		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
Kuskokwim Bay	Kuskokwim R.	0.1	0.0	0.9	0.81	0.4	0.0	0.0	0.0	0.92	0.1
	Kanektok	0.1	0.0	0.5	0.86	0.3	0.0	0.0	0.0	0.91	0.1
	Goodnews	0.2	0.0	1.0	0.64	0.4	0.1	0.0	0.3	0.86	0.2
Bristol Bay	Togiak	0.0	0.0	0.2	0.85	0.2	0.1	0.0	0.6	0.58	0.2
	Igushik	0.0	0.0	0.2	0.72	0.2	3.7	0.2	7.0	0.05	1.9
	Wood	13.9	10.8	17.2	0.00	1.9	26.6	22.1	31.2	0.00	2.8
	Nushagak	2.3	0.8	4.1	0.01	1.0	2.5	0.9	4.6	0.00	1.2
	Kvichak	0.2	0.0	1.1	0.70	0.4	1.9	0.7	3.3	0.00	0.8
	Alagnak	0.9	0.2	1.9	0.00	0.5	3.8	2.1	5.7	0.00	1.1
	Naknek	3.4	1.7	5.5	0.00	1.2	5.9	3.7	8.4	0.00	1.5
	Egegik	9.2	6.2	12.6	0.00	1.9	17.4	13.4	21.8	0.00	2.6
Ugashik	1.0	0.0	3.4	0.23	1.2	7.7	4.5	11.2	0.00	2.0	
North Peninsula	Cinder	0.2	0.0	1.0	0.72	0.4	3.9	1.7	6.4	0.01	1.5
	Meshik	0.1	0.0	0.5	0.85	0.3	0.1	0.0	0.1	0.89	0.4
	Ilnik	0.0	0.0	0.0	0.91	0.1	0.1	0.0	0.8	0.82	0.4
	Sandy	0.0	0.0	0.0	0.91	0.1	0.5	0.0	1.8	0.39	0.6
	Bear	0.0	0.0	0.0	0.89	0.1	0.1	0.0	0.8	0.82	0.4
	Nelson	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	NW Dist.-BH	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.1	0.88	0.1
South Peninsula		0.8	0.1	1.8	0.04	0.5	0.3	0.0	1.1	0.19	0.4
Chignik	Black Lake	51.3	46.7	55.7	0.00	2.7	15.0	11.9	18.3	0.00	1.9
	Chignik Lake	0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.90	0.2
East of WASSIP		16.4	13.1	20.0	0.00	2.1	10.4	7.9	13.2	0.00	1.6

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Appendix D11.–Unimak District (June), Alaska Peninsula Area, Westward Region, 2007, temporal strata 1–3. Reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (6/7–6/13; H=122,908; n=397)					Stratum 2 (6/14–6/20; H=313,938; n=380)					Stratum 3 (6/22–6/29; H=34,169; n=446)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%				5%	95%		
Norton Sound		0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.91	0.1
Kuskokwim Bay	Kuskokwim R.	0.1	0.0	0.8	0.73	0.3	0.8	0.0	3.4	0.61	1.3	0.0	0.0	0.1	0.87	0.1
	Kanektok	0.0	0.0	0.0	0.88	0.2	0.4	0.0	1.2	0.24	0.4	2.1	1.0	3.5	0.00	0.8
	Goodnews	0.3	0.0	2.1	0.78	0.7	2.1	0.0	4.3	0.11	1.3	2.2	0.7	3.7	0.03	0.9
Bristol Bay	Togiak	2.1	0.0	4.0	0.11	1.2	0.1	0.0	0.9	0.67	0.4	0.1	0.0	1.1	0.82	0.5
	Igushik	3.8	1.2	6.8	0.02	1.7	1.6	0.0	5.0	0.31	1.8	5.9	2.9	10.2	0.00	2.2
	Wood	26.3	21.6	31.2	0.00	2.9	31.9	27.1	36.7	0.00	3.0	21.6	16.8	26.2	0.00	2.9
	Nushagak	7.2	3.5	11.4	0.00	2.4	2.0	0.0	4.2	0.08	1.3	1.5	0.4	3.2	0.00	0.9
	Kvichak	8.8	5.9	12.0	0.00	1.9	8.4	5.6	11.5	0.00	1.8	7.4	4.9	10.3	0.00	1.7
	Alagnak	5.0	3.2	7.0	0.00	1.2	5.6	3.5	8.0	0.00	1.4	13.0	10.2	16.0	0.00	1.8
	Naknek	5.2	3.2	7.5	0.00	1.3	9.4	6.4	12.7	0.00	1.9	7.8	5.4	10.5	0.00	1.6
	Egegik	17.7	12.2	23.1	0.00	3.3	13.2	8.6	18.5	0.00	3.0	11.0	6.5	15.9	0.00	2.9
Ugashik	10.0	5.3	15.4	0.00	3.1	14.5	9.5	19.7	0.00	3.1	14.0	9.4	18.9	0.00	2.9	
North Peninsula	Cinder	1.0	0.0	3.0	0.32	1.1	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.89	0.2
	Meshik	0.4	0.0	2.9	0.73	1.0	0.7	0.0	2.7	0.48	1.0	0.0	0.0	0.0	0.91	0.1
	Ilnik	1.2	0.3	2.6	0.00	0.7	0.0	0.0	0.0	0.90	0.1	0.1	0.0	1.1	0.82	0.4
	Sandy	0.2	0.0	0.9	0.64	0.3	0.3	0.0	1.2	0.42	0.5	0.0	0.0	0.0	0.90	0.1
	Bear	2.2	0.8	4.0	0.00	1.0	0.1	0.0	0.4	0.73	0.2	0.0	0.0	0.0	0.91	0.1
	Nelson	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.1	0.86	0.1
	NW Dist.-BH	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
South Peninsula		0.6	0.1	1.3	0.00	0.4	0.1	0.0	0.8	0.65	0.3	0.1	0.0	0.6	0.69	0.2
Chignik	Black Lake	2.9	1.5	4.6	0.00	0.9	2.1	0.8	3.7	0.00	0.9	2.3	1.2	3.7	0.00	0.8
	Chignik Lake	0.0	0.0	0.0	0.91	0.1	0.2	0.0	1.3	0.61	0.5	0.0	0.0	0.0	0.90	0.1
East of WASSIP		5.1	3.3	7.2	0.00	1.2	6.4	4.3	8.7	0.00	1.4	10.8	8.4	13.5	0.00	1.6

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Appendix D12.–Unimak District (June), Alaska Peninsula Area, Westward Region, 2008, temporal strata 1–3. Reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (6/7–6/13; H=94,413; n=477)					Stratum 2 (6/14–6/20; H=466,132; n=269)					Stratum 3 (6/22–6/29; H=285,606; n=393)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%				5%	95%		
Norton Sound		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.0
Kuskokwim Bay	Kuskokwim R.	1.1	0.4	2.2	0.00	0.6	0.0	0.0	0.0	0.90	0.1	0.1	0.0	0.2	0.88	0.3
	Kanektok	0.6	0.0	2.5	0.20	0.9	0.1	0.0	0.4	0.86	0.4	0.1	0.0	0.2	0.86	0.2
	Goodnews	0.1	0.0	0.9	0.77	0.3	1.6	0.0	3.6	0.08	1.1	0.8	0.0	2.9	0.47	1.1
Bristol Bay	Togiak	0.5	0.0	1.4	0.05	0.5	0.2	0.0	1.1	0.73	0.4	0.2	0.0	1.6	0.73	0.6
	Igushik	8.5	5.2	12.1	0.00	2.1	3.2	0.0	8.1	0.12	2.8	5.1	1.8	8.8	0.00	2.1
	Wood	11.4	7.8	15.3	0.00	2.3	18.9	12.5	25.6	0.00	4.0	16.7	12.5	21.2	0.00	2.7
	Nushagak	5.2	3.1	7.7	0.00	1.4	7.8	3.8	12.4	0.00	2.6	4.6	1.9	7.4	0.00	1.7
	Kvichak	12.8	9.6	16.3	0.00	2.1	15.0	10.6	19.6	0.00	2.8	17.1	13.2	21.3	0.00	2.5
	Alagnak	2.0	0.8	3.5	0.00	0.8	5.4	2.8	8.4	0.00	1.7	6.8	4.6	9.2	0.00	1.4
	Naknek	9.6	6.9	12.7	0.00	1.8	13.3	9.2	17.8	0.00	2.6	10.4	7.3	13.8	0.00	2.0
	Egegik	32.6	27.7	37.3	0.00	2.9	30.1	24.2	35.9	0.00	3.6	19.5	15.3	24.1	0.00	2.7
	Ugashik	1.3	0.0	4.7	0.25	1.7	0.6	0.0	4.4	0.71	1.6	7.5	4.1	11.1	0.00	2.1
North Peninsula	Cinder	2.4	0.0	4.4	0.07	1.2	0.0	0.0	0.1	0.81	0.2	0.0	0.0	0.0	0.91	0.1
	Meshik	0.2	0.0	1.5	0.77	0.6	0.0	0.0	0.0	0.91	0.1	2.6	1.0	4.5	0.00	1.1
	Ilnik	0.2	0.0	0.9	0.59	0.4	0.0	0.0	0.0	0.91	0.1	0.2	0.0	0.8	0.37	0.3
	Sandy	1.3	0.0	2.7	0.09	0.8	0.0	0.0	0.2	0.85	0.2	0.0	0.0	0.0	0.91	0.1
	Bear	1.7	0.1	3.4	0.04	1.0	1.8	0.0	3.9	0.09	1.2	2.5	1.0	4.2	0.00	1.0
	Nelson	2.2	1.2	3.5	0.00	0.7	0.4	0.0	1.2	0.00	0.4	0.0	0.0	0.0	0.92	0.0
	NW Dist.-BH	3.5	2.2	5.1	0.00	0.9	0.0	0.0	0.1	0.74	0.1	0.1	0.0	0.8	0.77	0.3
South Peninsula		0.0	0.0	0.0	0.92	0.0	0.4	0.0	1.1	0.00	0.4	1.2	0.3	2.4	0.00	0.7
Chignik	Black Lake	1.1	0.0	2.3	0.18	0.7	1.3	0.3	2.7	0.00	0.8	1.4	0.0	2.8	0.10	0.8
	Chignik Lake	0.3	0.0	1.4	0.66	0.5	0.0	0.0	0.0	0.92	0.1	0.3	0.0	1.8	0.70	0.6
East of WASSIP		1.3	0.5	2.4	0.00	0.6	0.1	0.0	0.5	0.78	0.2	3.0	1.7	4.6	0.00	0.9

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.



**APPENDIX E: (POST-JUNE), SHUMAGIN ISLANDS  
SECTION, DOLGOI ISLAND AREA, IKATAN AREA AND  
UNIMAK DISTRICT, ALASKA PENINSULA AREA,  
WESTWARD REGION, SUBREGIONAL STOCK  
COMPOSITION ESTIMATES**

Appendix E1.—Shumagin Islands Section (post-June), Alaska Peninsula Area, Westward Region, 2006, temporal strata 1–3. Reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (7/6–7/12; H=113,843; n=397)					Stratum 2 (7/14–7/21; H=75,750; n=406)					Stratum 3 (7/23–7/31; H=85,702; n=396)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%				5%	95%		
Norton Sound		0.0	0.0	0.0	0.91	0.1	0.1	0.0	1.1	0.80	0.4	0.0	0.0	0.0	0.92	0.0
Kuskokwim Bay	Kuskokwim R.	0.2	0.0	1.2	0.68	0.4	0.1	0.0	0.9	0.75	0.3	0.0	0.0	0.0	0.92	0.0
	Kanektok	0.1	0.0	0.4	0.76	0.2	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0
	Goodnews	0.1	0.0	0.4	0.86	0.3	0.0	0.0	0.0	0.90	0.1	0.1	0.0	0.8	0.74	0.3
Bristol Bay	Togiak	2.8	1.4	4.4	0.00	0.9	0.0	0.0	0.1	0.80	0.1	0.5	0.0	1.4	0.17	0.5
	Igushik	0.6	0.0	3.9	0.72	1.3	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0
	Wood	3.4	0.0	5.6	0.07	1.5	1.1	0.1	2.7	0.02	0.8	0.0	0.0	0.0	0.93	0.0
	Nushagak	3.0	1.5	4.9	0.00	1.0	3.1	0.8	5.4	0.01	1.4	0.0	0.0	0.0	0.79	0.1
	Kvichak	0.0	0.0	0.3	0.84	0.2	1.2	0.3	2.4	0.00	0.6	0.0	0.0	0.3	0.85	0.2
	Alagnak	3.1	1.7	4.8	0.00	1.0	1.0	0.2	2.2	0.00	0.6	0.0	0.0	0.0	0.92	0.0
	Naknek	6.6	4.6	8.8	0.00	1.3	2.6	1.3	4.1	0.00	0.9	0.1	0.0	0.5	0.54	0.2
	Egegik	11.9	8.2	16.2	0.00	2.4	2.0	0.0	4.4	0.03	1.3	0.1	0.0	0.6	0.71	0.3
Ugashik	3.1	0.0	6.3	0.12	2.0	5.0	2.3	7.9	0.01	1.8	0.3	0.0	1.2	0.41	0.4	
North Peninsula	Cinder	2.0	0.0	4.0	0.12	1.2	0.1	0.0	1.0	0.75	0.4	0.0	0.0	0.0	0.92	0.1
	Meshik	0.4	0.0	2.6	0.72	0.9	0.1	0.0	0.8	0.85	0.5	0.1	0.0	0.6	0.84	0.3
	Ilnik	0.0	0.0	0.1	0.87	0.1	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0
	Sandy	0.0	0.0	0.0	0.89	0.2	0.1	0.0	0.6	0.83	0.3	0.1	0.0	0.4	0.81	0.2
	Bear	3.4	1.8	5.3	0.00	1.1	0.4	0.0	1.5	0.39	0.5	0.0	0.0	0.0	0.90	0.1
	Nelson	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	NW Dist.-BH	0.1	0.0	0.5	0.64	0.2	0.2	0.0	0.7	0.13	0.3	0.0	0.0	0.0	0.92	0.0
South Peninsula		0.0	0.0	0.0	0.90	0.1	0.1	0.0	0.5	0.86	0.3	0.0	0.0	0.0	0.91	0.1
Chignik	Black Lake	7.0	4.3	10.0	0.00	1.8	8.5	5.8	11.5	0.00	1.7	7.6	4.6	10.9	0.00	1.9
	Chignik Lake	7.9	5.0	11.2	0.00	1.9	8.8	6.0	12.0	0.00	1.8	30.8	26.2	35.5	0.00	2.8
East of WASSIP		44.4	40.1	48.7	0.00	2.6	65.6	61.4	69.8	0.00	2.6	60.4	56.1	64.6	0.00	2.6

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.



Appendix E2.–Shumagin Islands Section (post-June), Alaska Peninsula Area, Westward Region, 2007, temporal strata 1–3. Reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (7/6–7/12; H=138,357; n=365)					Stratum 2 (7/15–7/21; H=100,331; n=396)					Stratum 3 (7/23–7/31; H=120,845; n=396)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%				5%	95%		
Norton Sound		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
Kuskokwim Bay	Kuskokwim R.	1.6	0.0	3.8	0.15	1.3	1.3	0.3	2.7	0.02	0.8	2.2	1.0	3.6	0.00	0.8
	Kanektok	1.3	0.4	3.0	0.00	0.9	0.4	0.0	1.2	0.12	0.4	0.1	0.0	0.2	0.86	0.4
	Goodnews	4.1	0.0	6.7	0.06	1.8	0.1	0.0	0.3	0.69	0.2	4.1	0.0	8.1	0.19	2.7
Bristol Bay	Togiak	0.6	0.0	3.8	0.63	1.3	3.3	1.9	4.9	0.00	0.9	3.9	0.0	9.5	0.11	3.0
	Igushik	0.1	0.0	0.1	0.88	0.3	0.4	0.0	2.1	0.66	0.8	1.5	0.0	3.5	0.16	1.1
	Wood	18.0	14.0	22.1	0.00	2.5	9.4	6.7	12.2	0.00	1.7	12.1	9.0	15.4	0.00	1.9
	Nushagak	3.7	0.5	7.9	0.00	2.3	4.0	2.0	6.4	0.00	1.3	3.9	2.0	6.2	0.00	1.3
	Kvichak	4.2	1.9	7.0	0.00	1.6	2.6	1.1	4.4	0.00	1.0	1.4	0.0	3.7	0.23	1.3
	Alagnak	10.5	7.6	13.7	0.00	1.8	3.8	2.0	6.0	0.00	1.2	5.9	3.8	8.3	0.00	1.4
	Naknek	15.3	11.6	19.2	0.00	2.3	11.0	8.3	14.1	0.00	1.8	14.9	11.6	18.5	0.00	2.1
	Egegik	9.3	5.6	14.0	0.00	2.6	8.4	4.9	12.3	0.00	2.2	15.8	9.8	20.7	0.00	3.3
	Ugashik	7.1	2.1	11.6	0.02	2.8	2.3	0.0	5.4	0.12	1.8	1.8	0.0	7.7	0.54	2.8
North Peninsula	Cinder	0.5	0.0	2.3	0.59	0.8	0.0	0.0	0.0	0.91	0.1	0.1	0.0	0.3	0.86	0.3
	Meshik	0.0	0.0	0.1	0.89	0.2	0.0	0.0	0.0	0.91	0.1	0.1	0.0	0.9	0.78	0.4
	Ilnik	0.1	0.0	0.3	0.86	0.3	0.1	0.0	0.4	0.86	0.3	0.0	0.0	0.0	0.89	0.2
	Sandy	0.1	0.0	0.5	0.80	0.2	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.91	0.1
	Bear	3.5	1.6	5.7	0.00	1.3	3.5	1.7	5.7	0.00	1.2	6.6	4.3	9.2	0.00	1.5
	Nelson	0.3	0.0	1.0	0.04	0.3	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.89	0.1
	NW Dist.-BH	0.3	0.0	1.1	0.06	0.4	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.89	0.1
South Peninsula		0.2	0.0	1.1	0.58	0.4	0.3	0.0	1.6	0.69	0.6	0.2	0.0	0.7	0.37	0.3
Chignik	Black Lake	1.8	0.4	3.3	0.01	0.9	5.2	3.2	7.7	0.00	1.4	1.6	0.0	3.4	0.06	1.0
	Chignik Lake	0.5	0.0	2.2	0.19	0.8	12.0	9.1	15.3	0.00	1.9	4.0	2.0	6.2	0.00	1.3
East of WASSIP		17.0	13.6	20.5	0.00	2.1	31.9	27.9	36.1	0.00	2.5	20.0	16.4	23.8	0.00	2.3

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Appendix E3.–Shumagin Islands Section (post-June), Alaska Peninsula Area, Westward Region, 2007, temporal stratum 4. Reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 4 (8/1–8/19; H=39,975; n=431)				
		Mean	90% CI		P=0	SD
Regional	Subregional		5%	95%		
Norton Sound		0.0	0.0	0.0	0.92	0.0
Kuskokwim Bay	Kuskokwim R.	0.0	0.0	0.0	0.83	0.2
	Kanektok	0.3	0.0	0.8	0.09	0.3
	Goodnews	0.0	0.0	0.2	0.68	0.1
Bristol Bay	Togiak	0.0	0.0	0.1	0.72	0.1
	Igushik	0.0	0.0	0.1	0.86	0.2
	Wood	2.4	1.1	4.1	0.00	0.9
	Nushagak	2.3	1.0	4.1	0.00	1.0
	Kvichak	0.0	0.0	0.0	0.90	0.1
	Alagnak	1.8	0.7	3.2	0.00	0.8
	Naknek	2.5	1.3	4.1	0.00	0.9
	Egegik	2.3	0.7	4.5	0.00	1.2
	Ugashik	1.8	0.0	3.9	0.15	1.2
North Peninsula	Cinder	0.1	0.0	0.7	0.79	0.3
	Meshik	0.7	0.0	3.1	0.62	1.1
	Ilnik	0.0	0.0	0.0	0.92	0.1
	Sandy	0.0	0.0	0.0	0.91	0.1
	Bear	4.7	2.7	6.9	0.00	1.3
	Nelson	0.0	0.0	0.0	0.92	0.0
	NW Dist.-BH	0.0	0.0	0.3	0.84	0.2
South Peninsula		1.4	0.0	3.3	0.21	1.1
Chignik	Black Lake	0.2	0.0	1.5	0.75	0.6
	Chignik Lake	17.1	13.8	20.6	0.00	2.1
East of WASSIP		62.2	58.0	66.4	0.00	2.6

*Note:* Stock composition estimates may not sum to 100% due to rounding error.

*Note:* H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Appendix E4.–Shumagin Islands Section (post-June), Alaska Peninsula Area, Westward Region, 2008, temporal strata 1–3. Reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (7/6–7/12; H=64,152; n=394)					Stratum 2 (7/14–7/21; H=67,162; n=396)					Stratum 3 (7/23–7/31; H=19,235; n=149)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%				5%	95%		
Norton Sound		0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.91	0.1	0.8	0.0	3.8	0.58	1.4
Kuskokwim Bay	Kuskokwim R.	1.5	0.6	2.7	0.00	0.7	0.2	0.0	0.8	0.50	0.3	3.4	0.0	7.9	0.23	2.7
	Kanektok	0.0	0.0	0.0	0.90	0.1	0.2	0.0	1.4	0.69	0.5	0.0	0.0	0.0	0.91	0.2
	Goodnews	0.1	0.0	0.3	0.87	0.3	0.2	0.0	1.6	0.76	0.6	0.1	0.0	0.1	0.88	0.5
Bristol Bay	Togiak	1.6	0.7	2.8	0.01	0.7	1.7	0.6	3.2	0.00	0.8	1.5	0.3	3.6	0.00	1.1
	Igushik	0.1	0.0	0.7	0.83	0.4	0.4	0.0	1.6	0.52	0.6	0.1	0.0	0.1	0.89	0.4
	Wood	1.2	0.2	2.5	0.03	0.7	0.9	0.0	2.2	0.17	0.7	11.2	7.0	16.1	0.00	2.8
	Nushagak	6.7	4.5	9.1	0.00	1.4	0.2	0.0	1.0	0.43	0.4	1.1	0.0	5.6	0.62	2.0
	Kvichak	4.2	2.4	6.2	0.00	1.2	3.1	1.5	5.0	0.00	1.1	4.4	0.0	10.8	0.19	3.7
	Alagnak	2.2	1.0	3.6	0.00	0.8	0.0	0.0	0.0	0.85	0.1	4.9	1.8	8.7	0.00	2.1
	Naknek	4.2	2.3	6.5	0.00	1.3	3.0	1.5	4.9	0.00	1.0	6.7	2.9	11.4	0.00	2.6
	Egegik	7.7	5.1	10.6	0.00	1.7	2.0	0.7	3.7	0.00	0.9	13.8	7.7	20.6	0.00	3.9
	Ugashik	0.5	0.0	2.3	0.58	0.8	0.0	0.0	0.0	0.91	0.1	2.8	0.0	10.8	0.54	4.0
North Peninsula	Cinder	1.6	0.4	3.2	0.01	0.9	1.7	0.0	3.7	0.12	1.1	0.4	0.0	3.3	0.73	1.3
	Meshik	0.0	0.0	0.3	0.86	0.2	0.0	0.0	0.0	0.90	0.1	0.1	0.0	0.2	0.87	0.4
	Ilnik	0.0	0.0	0.0	0.90	0.2	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.90	0.3
	Sandy	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.90	0.2
	Bear	2.7	1.2	4.5	0.00	1.0	2.4	0.9	4.3	0.00	1.0	18.7	13.1	25.0	0.00	3.6
	Nelson	0.0	0.0	0.0	0.92	0.0	0.3	0.0	0.9	0.09	0.3	0.0	0.0	0.0	0.91	0.1
	NW Dist.-BH	0.0	0.0	0.0	0.89	0.1	0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.90	0.2
South Peninsula		3.2	1.7	5.1	0.00	1.1	5.1	2.9	7.8	0.00	1.5	4.5	1.7	8.3	0.00	2.0
Chignik	Black Lake	9.8	6.6	13.4	0.00	2.1	0.7	0.0	2.7	0.20	1.0	0.0	0.0	0.0	0.91	0.1
	Chignik Lake	15.9	12.0	20.1	0.00	2.5	31.4	27.1	35.7	0.00	2.6	9.2	4.8	14.3	0.00	2.9
East of WASSIP		36.7	32.5	41.1	0.00	2.6	46.5	41.9	51.2	0.00	2.8	16.3	11.1	22.1	0.00	3.4

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Appendix E5.–Shumagin Islands Section (post-June), Alaska Peninsula Area, Westward Region, 2008, temporal stratum 4. Reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 4 (8/1–8/21; H=83,849; n=371)				
		Mean	90% CI		P=0	SD
Regional	Subregional		5%	95%		
Norton Sound		0.1	0.0	1.1	0.80	0.4
Kuskokwim Bay	Kuskokwim R.	0.0	0.0	0.0	0.78	0.1
	Kanektok	0.0	0.0	0.0	0.91	0.1
	Goodnews	0.0	0.0	0.0	0.91	0.1
Bristol Bay	Togiak	0.0	0.0	0.0	0.89	0.1
	Igushik	0.0	0.0	0.1	0.88	0.2
	Wood	1.8	0.7	3.2	0.00	0.8
	Nushagak	0.0	0.0	0.0	0.91	0.1
	Kvichak	2.0	0.7	3.7	0.00	0.9
	Alagnak	0.0	0.0	0.1	0.70	0.1
	Naknek	0.6	0.0	1.6	0.04	0.5
	Egegik	3.7	1.9	5.7	0.00	1.2
	Ugashik	0.0	0.0	0.1	0.79	0.2
North Peninsula	Cinder	2.0	0.0	4.7	0.18	1.5
	Meshik	0.2	0.0	1.6	0.84	0.7
	Ilnik	0.0	0.0	0.0	0.89	0.2
	Sandy	0.0	0.0	0.0	0.91	0.1
	Bear	14.6	11.4	18.1	0.00	2.1
	Nelson	0.0	0.0	0.0	0.91	0.1
	NW Dist.-BH	0.9	0.0	2.6	0.15	0.9
South Peninsula		4.0	1.9	6.7	0.00	1.5
Chignik	Black Lake	0.2	0.0	1.3	0.82	0.5
	Chignik Lake	27.5	23.4	31.7	0.00	2.5
East of WASSIP		42.3	37.8	46.9	0.00	2.8

*Note:* Stock composition estimates may not sum to 100% due to rounding error.

*Note:* H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Appendix E6.–Dolgoi Island area (post-June), Alaska Peninsula Area, Westward Region, 2006, temporal stratum 1. Reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (7/6–7/31; H=228,307; n=487)				
		Mean	90% CI		P=0	SD
Regional	Subregional		5%	95%		
Norton Sound		0.0	0.0	0.0	0.92	0.0
Kuskokwim Bay	Kuskokwim R.	0.0	0.0	0.0	0.92	0.0
	Kanektok	0.0	0.0	0.0	0.92	0.0
	Goodnews	0.0	0.0	0.0	0.92	0.0
Bristol Bay	Togiak	0.0	0.0	0.1	0.88	0.1
	Igushik	0.0	0.0	0.0	0.91	0.0
	Wood	0.0	0.0	0.0	0.92	0.0
	Nushagak	0.0	0.0	0.0	0.92	0.0
	Kvichak	0.0	0.0	0.0	0.91	0.1
	Alagnak	0.0	0.0	0.0	0.89	0.1
	Naknek	0.1	0.0	0.5	0.47	0.2
	Egegik	0.8	0.0	2.0	0.23	0.7
	Ugashik	0.3	0.0	1.5	0.44	0.5
North Peninsula	Cinder	0.0	0.0	0.0	0.91	0.1
	Meshik	0.1	0.0	0.6	0.84	0.3
	Ilnik	0.0	0.0	0.0	0.92	0.0
	Sandy	0.0	0.0	0.0	0.90	0.1
	Bear	0.0	0.0	0.0	0.90	0.1
	Nelson	0.0	0.0	0.0	0.92	0.0
	NW Dist.-BH	0.0	0.0	0.0	0.92	0.0
South Peninsula		0.0	0.0	0.0	0.91	0.1
Chignik	Black Lake	34.9	30.2	39.7	0.00	2.9
	Chignik Lake	31.9	27.2	36.7	0.00	2.9
East of WASSIP		31.8	28.2	35.4	0.00	2.2

*Note:* Stock composition estimates may not sum to 100% due to rounding error.

*Note:* H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Appendix E7.–Dolgoi Island area (post-June), Alaska Peninsula Area, Westward Region, 2007, temporal strata 1–2. Reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (7/6–7/31; H=221,451; n=397)					Stratum 2 (8/1–8/26; H=11,916; n=391)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%		
Norton Sound		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
Kuskokwim Bay	Kuskokwim R.	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Kanektok	0.1	0.0	0.5	0.58	0.2	0.0	0.0	0.0	0.92	0.1
	Goodnews	1.2	0.0	2.5	0.10	0.7	0.1	0.0	0.9	0.72	0.3
Bristol Bay	Togiak	0.1	0.0	0.8	0.79	0.3	0.5	0.0	1.3	0.20	0.4
	Igushik	0.5	0.0	1.7	0.37	0.6	0.0	0.0	0.3	0.85	0.2
	Wood	0.5	0.0	1.7	0.40	0.6	0.0	0.0	0.2	0.86	0.2
	Nushagak	0.0	0.0	0.0	0.92	0.1	0.2	0.0	1.0	0.47	0.4
	Kvichak	0.3	0.0	0.8	0.00	0.3	0.4	0.0	1.2	0.00	0.4
	Alagnak	0.3	0.0	0.8	0.07	0.3	0.0	0.0	0.0	0.92	0.1
	Naknek	0.1	0.0	0.7	0.76	0.3	0.2	0.0	0.8	0.46	0.3
	Egegik	1.7	0.0	3.3	0.06	1.0	0.0	0.0	0.0	0.87	0.1
	Ugashik	0.9	0.0	2.8	0.35	1.0	0.0	0.0	0.0	0.89	0.1
North Peninsula	Cinder	0.0	0.0	0.1	0.88	0.2	0.1	0.0	0.2	0.87	0.3
	Meshik	0.0	0.0	0.1	0.87	0.2	0.0	0.0	0.0	0.92	0.0
	Ilnik	0.0	0.0	0.0	0.91	0.1	1.5	0.4	2.9	0.02	0.8
	Sandy	0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.1	0.88	0.2
	Bear	0.1	0.0	0.5	0.82	0.2	0.0	0.0	0.0	0.91	0.1
	Nelson	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	NW Dist.-BH	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
South Peninsula		0.1	0.0	0.3	0.84	0.2	1.3	0.5	2.5	0.00	0.7
Chignik	Black Lake	7.2	4.4	10.3	0.00	1.8	2.5	0.6	4.8	0.01	1.3
	Chignik Lake	30.0	25.7	34.5	0.00	2.7	31.1	26.8	35.6	0.00	2.7
East of WASSIP		57.0	52.7	61.3	0.00	2.6	61.9	57.6	66.2	0.00	2.6

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Appendix E8.–Dolgoi Island area (post-June), Alaska Peninsula Area, Westward Region, 2008, temporal strata 1–2. Reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (7/6–7/31; H=29,060; n=384)					Stratum 2 (8/1-8/17; H=26,739; n=390)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%		
Norton Sound		0.0	0.0	0.2	0.86	0.2	0.0	0.0	0.0	0.92	0.0
Kuskokwim Bay	Kuskokwim R.	0.1	0.0	0.6	0.65	0.2	0.0	0.0	0.0	0.92	0.0
	Kanektok	0.1	0.0	0.9	0.84	0.4	0.0	0.0	0.0	0.90	0.1
	Goodnews	0.6	0.0	2.2	0.42	0.8	0.0	0.0	0.2	0.87	0.2
Bristol Bay	Togiak	0.5	0.0	1.9	0.49	0.7	0.0	0.0	0.0	0.92	0.1
	Igushik	0.2	0.0	1.3	0.64	0.5	0.2	0.0	0.8	0.43	0.3
	Wood	0.1	0.0	0.5	0.81	0.2	0.1	0.0	0.6	0.66	0.2
	Nushagak	0.9	0.0	3.0	0.36	1.1	0.0	0.0	0.1	0.88	0.1
	Kvichak	0.3	0.0	0.8	0.00	0.3	0.0	0.0	0.1	0.88	0.1
	Alagnak	0.1	0.0	0.6	0.53	0.2	0.0	0.0	0.0	0.92	0.1
	Naknek	1.6	0.6	2.9	0.00	0.7	0.8	0.1	1.8	0.01	0.5
	Egegik	2.8	0.4	5.2	0.04	1.4	0.4	0.0	1.7	0.35	0.6
	Ugashik	5.6	3.0	8.7	0.00	1.7	0.9	0.0	2.4	0.13	0.8
North Peninsula	Cinder	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.1	0.88	0.2
	Meshik	0.0	0.0	0.0	0.91	0.1	0.1	0.0	0.5	0.80	0.3
	Ilnik	0.2	0.0	1.4	0.78	0.5	0.0	0.0	0.0	0.90	0.1
	Sandy	0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.89	0.1
	Bear	2.4	1.1	4.0	0.00	0.9	5.1	3.1	7.5	0.00	1.4
	Nelson	0.1	0.0	0.7	0.51	0.3	0.0	0.0	0.0	0.92	0.0
	NW Dist.-BH	0.3	0.0	0.8	0.00	0.3	0.1	0.0	0.7	0.73	0.3
South Peninsula		1.6	0.6	2.9	0.00	0.7	3.2	1.5	5.2	0.00	1.1
Chignik	Black Lake	8.2	5.0	11.6	0.00	2.0	0.7	0.0	3.1	0.32	1.1
	Chignik Lake	33.4	28.7	38.2	0.00	2.9	52.6	47.8	57.2	0.00	2.9
East of WASSIP		41.0	36.6	45.4	0.00	2.7	35.7	31.4	40.1	0.00	2.7

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Appendix E9.—Ikatan area (post-June), Alaska Peninsula Area, Westward Region, 2007, temporal stratum 1. Reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (7/6–7/31; H=19,992; n=296)				
		Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%		
Norton Sound		0.0	0.0	0.0	0.91	0.1
Kuskokwim Bay	Kuskokwim R.	0.0	0.0	0.0	0.92	0.1
	Kanektok	0.9	0.0	2.0	0.04	0.6
	Goodnews	0.8	0.0	4.1	0.63	1.4
Bristol Bay	Togiak	3.2	0.0	5.7	0.07	1.6
	Igushik	0.1	0.0	0.5	0.83	0.3
	Wood	1.4	0.4	2.9	0.01	0.8
	Nushagak	0.1	0.0	1.0	0.68	0.4
	Kvichak	4.1	2.1	6.5	0.00	1.4
	Alagnak	1.7	0.4	3.5	0.00	1.0
	Naknek	2.4	1.0	4.2	0.00	1.0
	Egegik	3.7	1.4	6.8	0.00	1.9
	Ugashik	7.9	4.4	11.9	0.01	2.4
North Peninsula	Cinder	0.2	0.0	1.7	0.81	0.7
	Meshik	2.6	0.0	6.8	0.31	2.4
	Ilnik	0.1	0.0	0.5	0.83	0.5
	Sandy	0.1	0.0	0.4	0.86	0.3
	Bear	5.9	3.4	9.0	0.00	1.7
	Nelson	0.4	0.0	1.5	0.44	0.5
	NW Dist.-BH	0.0	0.0	0.0	0.92	0.1
South Peninsula		6.6	4.0	9.6	0.00	1.7
Chignik	Black Lake	2.7	0.0	6.5	0.19	2.2
	Chignik Lake	11.5	7.3	16.0	0.00	2.7
East of WASSIP		43.9	38.7	49.1	0.00	3.2

*Note:* Stock composition estimates may not sum to 100% due to rounding error.

*Note:* Stock composition estimates may not sum to 100% due to rounding error.

*Note:* H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.



Appendix E10.–Ikatan area (post-June), Alaska Peninsula Area, Westward Region, 2008, temporal stratum 1. Reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (7/6–7/31; H=13,842; n=409)				
		Mean	90% CI		P=0	SD
Regional	Subregional		5%	95%		
Norton Sound		0.0	0.0	0.0	0.90	0.1
Kuskokwim Bay	Kuskokwim R.	0.1	0.0	1.0	0.82	0.4
	Kanektok	0.0	0.0	0.0	0.91	0.1
	Goodnews	0.0	0.0	0.0	0.90	0.2
Bristol Bay	Togiak	1.2	0.4	2.3	0.01	0.6
	Igushik	0.2	0.0	1.7	0.76	0.6
	Wood	4.7	2.8	6.8	0.00	1.2
	Nushagak	1.6	0.0	3.3	0.06	0.9
	Kvichak	5.7	3.4	8.5	0.00	1.6
	Alagnak	2.8	1.3	4.6	0.00	1.0
	Naknek	10.0	7.1	13.1	0.00	1.8
	Egegik	6.5	3.7	10.2	0.00	2.0
Ugashik	2.9	0.0	6.0	0.05	1.8	
North Peninsula	Cinder	0.1	0.0	0.3	0.86	0.2
	Meshik	0.0	0.0	0.2	0.79	0.2
	Ilnik	0.1	0.0	0.2	0.87	0.3
	Sandy	0.0	0.0	0.0	0.91	0.1
	Bear	6.0	3.8	8.4	0.00	1.4
	Nelson	0.3	0.0	1.2	0.42	0.4
	NW Dist.-BH	0.5	0.0	1.3	0.03	0.4
South Peninsula		18.8	15.2	22.6	0.00	2.3
Chignik	Black Lake	1.2	0.0	3.9	0.35	1.4
	Chignik Lake	14.5	11.0	18.1	0.00	2.2
East of WASSIP		22.8	19.3	26.6	0.00	2.2

*Note:* Stock composition estimates may not sum to 100% due to rounding error.

*Note:* H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.



**APPENDIX F: NORTHERN DISTRICT, ALASKA  
PENINSULA AREA, WESTWARD REGION,  
SUBREGIONAL STOCK COMPOSITION ESTIMATES**

Appendix F1.–Bear River Section, Northern District, Westward Region, 2006, temporal strata 1–3. Reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (6/5–7/8; H=16,020; n=384)					Stratum 2 (7/9–7/17; H=156,374; n=402)					Stratum 3 (7/18–7/31; H=189,933; n=398)								
		Mean	90% CI			$P=0$	SD	Mean	90% CI			$P=0$	SD	Mean	90% CI			$P=0$	SD	
Regional	Subregional		5%	95%				5%	95%				5%	95%			5%	95%		
Norton Sound		0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.89	0.2	0.1	0.0	0.3	0.84	0.2				
Kuskokwim Bay	Kuskokwim R.	0.2	0.0	1.2	0.61	0.4	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0				
	Kanektok	0.0	0.0	0.1	0.89	0.2	0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.92	0.1				
	Goodnews	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.3	0.82	0.2	0.0	0.0	0.0	0.92	0.1				
Bristol Bay	Togiak	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.3	0.83	0.2	0.0	0.0	0.0	0.92	0.0				
	Igushik	0.6	0.0	1.6	0.19	0.5	0.6	0.0	1.6	0.15	0.5	0.0	0.0	0.0	0.92	0.0				
	Wood	0.1	0.0	0.6	0.82	0.3	0.1	0.0	0.5	0.79	0.2	0.0	0.0	0.0	0.92	0.0				
	Nushagak	0.2	0.0	1.1	0.63	0.4	0.0	0.0	0.0	0.92	0.1	0.1	0.0	0.6	0.84	0.3				
	Kvichak	1.1	0.1	2.7	0.00	0.9	1.9	0.7	3.6	0.00	0.9	0.0	0.0	0.1	0.84	0.2				
	Alagnak	0.0	0.0	0.1	0.88	0.1	0.1	0.0	0.6	0.77	0.3	0.1	0.0	0.4	0.74	0.2				
	Naknek	2.9	1.4	5.0	0.00	1.1	0.8	0.0	2.0	0.11	0.6	0.7	0.0	1.7	0.16	0.6				
	Egegik	1.6	0.0	4.9	0.22	1.7	5.6	3.3	8.3	0.00	1.5	1.8	0.0	5.6	0.26	2.0				
	Ugashik	3.2	0.0	6.6	0.06	2.0	4.8	2.5	7.3	0.00	1.5	14.8	10.1	19.4	0.00	2.8				
North Peninsula	Cinder	0.1	0.0	0.3	0.85	0.4	0.0	0.0	0.1	0.88	0.3	4.3	1.7	7.1	0.01	1.7				
	Meshik	7.1	4.1	10.4	0.00	1.9	0.3	0.0	1.5	0.41	0.6	0.0	0.0	0.0	0.89	0.2				
	Ilnik	0.1	0.0	0.7	0.83	0.3	0.1	0.0	0.3	0.86	0.3	1.0	0.3	2.0	0.00	0.6				
	Sandy	8.4	5.7	11.6	0.00	1.8	4.1	2.1	6.5	0.00	1.4	4.3	2.1	7.0	0.00	1.5				
	Bear	60.1	55.3	65.0	0.00	2.9	66.6	62.2	70.8	0.00	2.6	58.6	53.8	63.3	0.00	2.9				
	Nelson	12.5	9.6	15.6	0.00	1.8	9.5	7.1	12.1	0.00	1.5	3.9	2.3	5.8	0.00	1.1				
	NW Dist.-BH	0.0	0.0	0.0	0.89	0.1	1.0	0.1	2.7	0.00	0.8	0.0	0.0	0.0	0.89	0.1				
South Peninsula		0.0	0.0	0.0	0.89	0.1	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.91	0.1				
Chignik	Black Lake	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.89	0.1	0.0	0.0	0.0	0.92	0.0				
	Chignik Lake	0.0	0.0	0.0	0.92	0.0	0.5	0.0	1.3	0.04	0.4	0.0	0.0	0.0	0.92	0.0				
East of WASSIP		1.7	0.8	3.0	0.00	0.7	4.0	2.4	5.8	0.00	1.0	10.4	7.9	13.2	0.00	1.6				

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Appendix F2.–Bear River Section, Northern District, Westward Region, 2007, temporal strata 2–3. Reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 2 (7/14–7/19; H=76,652; n=271)					Stratum 3 (7/20–7/31; H=115,464; n=393)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%		
Norton Sound		0.1	0.0	0.6	0.76	0.3	0.0	0.0	0.0	0.92	0.1
Kuskokwim Bay	Kuskokwim R.	0.4	0.0	1.1	0.08	0.4	0.0	0.0	0.0	0.92	0.0
	Kanektok	0.0	0.0	0.0	0.92	0.1	0.1	0.0	0.4	0.86	0.3
	Goodnews	0.1	0.0	0.3	0.86	0.2	0.3	0.0	1.2	0.41	0.5
Bristol Bay	Togiak	0.0	0.0	0.3	0.84	0.2	0.2	0.0	1.0	0.58	0.4
	Igushik	0.1	0.0	0.8	0.79	0.4	0.1	0.0	0.5	0.80	0.2
	Wood	0.8	0.0	2.0	0.03	0.7	0.0	0.0	0.0	0.91	0.1
	Nushagak	0.0	0.0	0.0	0.89	0.1	0.0	0.0	0.0	0.89	0.2
	Kvichak	0.4	0.0	1.2	0.00	0.4	0.0	0.0	0.0	0.91	0.1
	Alagnak	1.9	0.7	3.6	0.00	0.9	0.6	0.0	1.6	0.01	0.5
	Naknek	0.1	0.0	0.7	0.77	0.3	0.0	0.0	0.0	0.90	0.1
	Egegik	0.6	0.0	3.3	0.69	1.2	0.0	0.0	0.0	0.90	0.2
	Ugashik	2.2	0.0	5.2	0.20	1.7	1.2	0.0	2.9	0.15	0.9
North Peninsula	Cinder	0.3	0.0	2.7	0.72	1.0	2.7	0.0	5.7	0.16	1.8
	Meshik	0.1	0.0	1.1	0.82	0.5	0.1	0.0	0.2	0.87	0.3
	Ilnik	0.2	0.0	1.2	0.62	0.5	0.0	0.0	0.0	0.92	0.1
	Sandy	6.2	3.4	9.6	0.00	1.9	2.1	0.7	4.0	0.01	1.0
	Bear	51.7	46.1	57.3	0.00	3.4	70.1	65.8	74.2	0.00	2.6
	Nelson	16.9	13.1	21.0	0.00	2.4	3.1	1.6	4.8	0.00	1.0
	NW Dist.-BH	3.6	1.7	5.9	0.00	1.3	0.9	0.2	1.8	0.00	0.5
South Peninsula		0.1	0.0	0.7	0.81	0.4	1.3	0.0	4.0	0.47	1.5
Chignik	Black Lake	0.0	0.0	0.1	0.87	0.2	0.0	0.0	0.1	0.88	0.2
	Chignik Lake	1.1	0.1	2.5	0.01	0.8	0.7	0.1	1.6	0.02	0.5
East of WASSIP		13.1	9.6	16.8	0.00	2.2	16.6	13.5	19.8	0.00	2.0

*Note:* Stock composition estimates may not sum to 100% due to rounding error.

*Note:* H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Appendix F3.—Three Hills Section, Northern District, Westward Region, 2006, temporal strata 2–3. Reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 2 (7/14–7/17; H=64,963; n=332)					Stratum 3 (7/18–7/28; H=30,463; n=320)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%		
Norton Sound		0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.91	0.1
Kuskokwim Bay	Kuskokwim R.	0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.91	0.1
	Kanektok	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.90	0.1
	Goodnews	0.7	0.0	2.2	0.30	0.8	0.1	0.0	0.5	0.82	0.3
Bristol Bay	Togiak	0.7	0.0	3.3	0.58	1.2	0.0	0.0	0.0	0.89	0.2
	Igushik	0.2	0.0	1.3	0.74	0.5	0.0	0.0	0.2	0.86	0.2
	Wood	0.9	0.0	2.6	0.29	0.9	0.4	0.0	1.5	0.34	0.5
	Nushagak	0.0	0.0	0.1	0.88	0.2	0.0	0.0	0.1	0.88	0.1
	Kvichak	0.7	0.1	1.6	0.00	0.5	0.0	0.0	0.2	0.86	0.2
	Alagnak	2.0	0.7	3.6	0.00	0.9	0.0	0.0	0.0	0.86	0.1
	Naknek	3.9	2.0	6.3	0.00	1.3	0.3	0.0	1.5	0.49	0.5
	Egegik	3.9	0.0	8.4	0.13	2.7	0.4	0.0	2.3	0.57	0.8
Ugashik	32.7	26.5	39.1	0.00	3.8	39.6	34.2	45.0	0.00	3.3	
North Peninsula	Cinder	0.7	0.0	4.0	0.47	1.5	5.1	2.2	8.6	0.01	2.0
	Meshik	6.3	2.3	10.3	0.00	2.4	0.7	0.0	2.7	0.29	1.0
	Ilnik	4.9	2.3	7.9	0.00	1.7	9.0	4.6	13.5	0.00	2.7
	Sandy	2.3	0.7	4.4	0.00	1.2	2.9	1.2	5.0	0.00	1.2
	Bear	25.9	21.4	30.5	0.00	2.8	30.7	26.0	35.7	0.00	3.0
	Nelson	11.8	8.8	15.1	0.00	1.9	0.4	0.0	1.3	0.00	0.4
	NW Dist.-BH	0.0	0.0	0.0	0.83	0.1	0.3	0.0	1.0	0.04	0.3
South Peninsula		0.2	0.0	0.9	0.67	0.4	0.1	0.0	0.3	0.87	0.3
Chignik	Black Lake	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.1
	Chignik Lake	0.0	0.0	0.0	0.88	0.1	0.0	0.0	0.0	0.91	0.1
East of WASSIP		2.3	1.1	3.9	0.00	0.9	9.9	7.2	12.9	0.00	1.7

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Appendix F4.–Ilnik Section southern statistical area, Northern District, Westward Region, 2006, temporal strata 1–3. Reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (6/25–7/4; H=301,660; n=392)					Stratum 2 (7/5–7/17; H=327,913; n=395)					Stratum 3 (7/18–7/31; H=63,937; n=397)				
		Mean	90% CI		P=0	SD	Mean	90% CI		P=0	SD	Mean	90% CI		P=0	SD
Regional	Subregional		5%	95%			5%	95%			5%	95%				
Norton Sound		0.1	0.0	0.0	0.89	0.3	0.0	0.0	0.0	0.89	0.2	0.0	0.0	0.0	0.90	0.1
Kuskokwim Bay	Kuskokwim R.	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.0	0.1	0.0	0.6	0.48	0.2
	Kanektok	0.6	0.0	3.9	0.73	1.4	0.0	0.0	0.1	0.88	0.2	0.1	0.0	0.5	0.67	0.2
	Goodnews	2.0	0.0	4.7	0.25	1.6	0.3	0.0	1.5	0.57	0.6	0.3	0.0	1.3	0.62	0.5
Bristol Bay	Togiak	0.1	0.0	0.2	0.88	0.4	0.1	0.0	0.4	0.85	0.2	0.4	0.0	1.5	0.35	0.5
	Igushik	0.2	0.0	1.5	0.73	0.6	0.6	0.0	1.8	0.18	0.6	1.5	0.0	3.1	0.04	0.9
	Wood	16.4	13.0	20.0	0.00	2.1	0.5	0.0	1.9	0.10	0.7	0.7	0.0	2.0	0.15	0.7
	Nushagak	1.6	0.2	3.4	0.03	1.0	0.8	0.0	2.4	0.19	0.8	0.0	0.0	0.0	0.88	0.1
	Kvichak	4.8	2.7	7.3	0.00	1.4	3.7	1.6	6.2	0.00	1.4	1.3	0.4	2.6	0.00	0.7
	Alagnak	2.2	0.9	3.9	0.00	0.9	2.4	1.0	4.1	0.00	1.0	1.6	0.6	2.9	0.00	0.7
	Naknek	9.3	6.6	12.4	0.00	1.8	4.7	2.8	7.0	0.00	1.3	2.5	1.1	4.3	0.00	1.0
	Egegik	5.3	1.8	9.2	0.01	2.3	12.5	4.7	20.3	0.00	4.7	3.9	1.5	8.2	0.00	2.5
	Ugashik	12.6	8.3	17.3	0.00	2.7	27.8	19.9	36.4	0.00	5.0	40.3	34.1	45.7	0.00	3.7
North Peninsula	Cinder	3.2	0.0	7.4	0.13	2.5	1.8	0.0	5.1	0.26	1.8	4.2	1.6	7.1	0.01	1.7
	Meshik	2.6	0.6	6.6	0.00	1.9	2.7	0.4	6.4	0.00	1.9	0.2	0.0	1.0	0.84	0.8
	Ilnik	16.6	12.7	20.7	0.00	2.5	4.8	2.2	7.6	0.00	1.6	2.2	0.8	4.4	0.00	1.1
	Sandy	3.1	1.4	5.1	0.00	1.2	5.8	3.6	8.4	0.00	1.5	1.5	0.0	3.2	0.05	1.0
	Bear	14.7	11.4	18.3	0.00	2.1	20.5	16.8	24.5	0.00	2.3	23.3	19.5	27.4	0.00	2.4
	Nelson	2.9	1.5	4.5	0.00	0.9	6.5	4.2	9.0	0.00	1.4	3.3	1.8	5.1	0.00	1.0
	NW Dist.-BH	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.2	0.86	0.2
South Peninsula		0.0	0.0	0.0	0.91	0.1	0.1	0.0	0.2	0.87	0.2	0.0	0.0	0.0	0.91	0.1
Chignik	Black Lake	0.1	0.0	0.6	0.74	0.3	0.0	0.0	0.0	0.89	0.1	0.0	0.0	0.0	0.92	0.1
	Chignik Lake	0.0	0.0	0.0	0.89	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1
East of WASSIP		1.7	0.7	3.2	0.00	0.8	4.4	2.8	6.3	0.00	1.1	12.6	9.8	15.6	0.00	1.8

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Appendix F5.—Ilnik Section southern statistical area, Northern District, Westward Region, 2007, temporal strata 1–3. Reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (6/20–6/27; H=201,954; n=394)					Stratum 2 (6/28–7/7; H=484,898; n=396)					Stratum 3 (7/10–7/31; H=239,612; n=354)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%				5%	95%		
Norton Sound		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.0
Kuskokwim Bay	Kuskokwim R.	0.0	0.0	0.2	0.86	0.2	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Kanektok	0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.92	0.1	0.3	0.0	1.9	0.75	0.7
	Goodnews	0.0	0.0	0.0	0.84	0.1	0.0	0.0	0.0	0.92	0.0	0.4	0.0	2.4	0.68	0.8
Bristol Bay	Togiak	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.1	1.3	0.0	2.7	0.10	0.8
	Igushik	0.2	0.0	1.1	0.73	0.4	4.2	1.5	7.4	0.01	1.8	3.6	1.0	6.2	0.02	1.6
	Wood	4.4	2.6	6.4	0.00	1.2	21.0	16.8	25.3	0.00	2.6	6.2	3.6	9.4	0.00	1.8
	Nushagak	0.1	0.0	0.4	0.80	0.2	1.6	0.6	3.0	0.00	0.8	0.1	0.0	0.9	0.69	0.4
	Kvichak	3.7	1.9	6.0	0.00	1.3	8.4	5.6	11.4	0.00	1.8	6.2	3.3	9.5	0.00	1.9
	Alagnak	0.8	0.1	1.9	0.01	0.6	3.9	2.0	6.1	0.00	1.3	1.7	0.4	3.3	0.00	0.9
	Naknek	6.6	4.3	9.3	0.00	1.5	16.9	13.2	20.9	0.00	2.3	5.5	2.8	9.1	0.00	1.9
	Egegik	7.4	4.6	10.9	0.00	1.9	4.4	1.4	8.1	0.00	2.1	0.9	0.0	4.2	0.47	1.5
	Ugashik	7.0	3.8	10.4	0.00	2.0	12.7	8.3	17.2	0.00	2.7	15.9	11.4	20.5	0.00	2.8
North Peninsula	Cinder	7.3	3.6	11.5	0.00	2.4	6.3	3.4	9.6	0.00	1.9	2.2	0.0	4.9	0.06	1.5
	Meshik	1.7	0.0	4.7	0.07	1.5	3.6	0.0	7.2	0.09	2.2	0.1	0.0	0.1	0.88	0.5
	Ilnik	38.0	33.0	43.1	0.00	3.1	2.4	0.9	4.3	0.00	1.1	1.7	0.6	3.3	0.00	0.9
	Sandy	4.3	2.4	6.5	0.00	1.3	0.6	0.0	1.7	0.01	0.6	0.5	0.0	2.5	0.63	0.9
	Bear	14.2	10.9	17.6	0.00	2.0	10.1	7.4	13.1	0.00	1.8	35.6	31.1	40.1	0.00	2.8
	Nelson	4.0	2.3	5.9	0.00	1.1	3.3	1.8	5.1	0.00	1.0	7.2	5.0	9.7	0.00	1.5
	NW Dist.-BH	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.1	1.1	0.3	2.3	0.00	0.6
South Peninsula		0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.91	0.1	
Chignik	Black Lake	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.1
	Chignik Lake	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
East of WASSIP		0.3	0.0	0.9	0.00	0.3	0.8	0.2	1.7	0.00	0.5	9.6	7.0	12.5	0.00	1.7

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.



Appendix F6.–Ilnik Section southern statistical area, Northern District, Westward Region, 2008, temporal strata 1–2. Reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (6/30–7/3; H=100,032; n=384)					Stratum 2 (7/4–7/11; H=151,246; n=393)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%		
Norton Sound		0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.1
Kuskokwim Bay	Kuskokwim R.	0.1	0.0	0.6	0.83	0.3	2.3	0.7	4.2	0.02	1.1
	Kanektok	0.2	0.0	1.8	0.84	0.7	0.3	0.0	1.3	0.46	0.5
	Goodnews	2.8	0.6	5.0	0.04	1.3	2.9	0.8	5.1	0.03	1.3
Bristol Bay	Togiak	0.0	0.0	0.0	0.90	0.2	0.1	0.0	0.5	0.86	0.5
	Igushik	5.1	2.4	8.0	0.00	1.7	8.7	5.1	12.5	0.00	2.3
	Wood	15.0	11.2	19.1	0.00	2.4	16.3	12.3	20.8	0.00	2.6
	Nushagak	4.2	1.8	7.1	0.00	1.6	3.2	1.3	5.6	0.00	1.4
	Kvichak	2.9	1.2	5.1	0.00	1.2	5.2	2.8	7.9	0.00	1.6
	Alagnak	2.5	1.1	4.3	0.00	1.0	4.0	2.3	6.0	0.00	1.2
	Naknek	12.5	9.3	15.8	0.00	2.0	10.0	7.1	13.2	0.00	1.9
	Egegik	6.5	3.4	10.3	0.00	2.1	5.4	2.9	8.6	0.00	1.8
Ugashik	9.6	5.8	13.7	0.00	2.4	16.2	11.9	20.7	0.00	2.7	
North Peninsula	Cinder	1.8	0.0	4.4	0.12	1.5	5.0	2.5	7.9	0.00	1.7
	Meshik	14.5	10.5	19.0	0.00	2.6	9.4	6.6	12.6	0.00	1.8
	Ilnik	8.6	5.7	11.9	0.00	1.9	0.6	0.1	1.3	0.00	0.4
	Sandy	1.1	0.1	2.5	0.02	0.8	0.4	0.0	1.8	0.49	0.7
	Bear	7.7	5.1	10.7	0.00	1.7	4.2	2.4	6.3	0.00	1.2
	Nelson	4.4	2.7	6.5	0.00	1.2	5.6	3.7	7.8	0.00	1.3
	NW Dist.-BH	0.1	0.0	0.2	0.88	0.3	0.0	0.0	0.0	0.89	0.1
South Peninsula		0.0	0.0	0.0	0.89	0.1	0.0	0.0	0.0	0.89	0.1
Chignik	Black Lake	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Chignik Lake	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1
East of WASSIP		0.5	0.0	2.5	0.44	0.9	0.2	0.0	1.0	0.42	0.4

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Appendix F7.—Ilnik Section northern statistical area, Northern District, Westward Region, 2006, temporal strata 1–3. Reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (6/25–6/29; H=83,223; n=392)					Stratum 2 (7/3–7/14; H=336,573; n=392)					Stratum 3 (7/17–7/28; H=115,945; n=393)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%				5%	95%		
Norton Sound		0.0	0.0	0.0	0.90	0.2	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.90	0.1
Kuskokwim Bay	Kuskokwim R.	0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.0
	Kanektok	0.1	0.0	0.7	0.84	0.4	0.0	0.0	0.0	0.89	0.1	0.0	0.0	0.0	0.90	0.1
	Goodnews	0.0	0.0	0.0	0.90	0.1	1.9	0.0	4.4	0.18	1.4	0.0	0.0	0.1	0.83	0.1
Bristol Bay	Togiak	0.7	0.1	1.5	0.00	0.5	0.7	0.0	3.2	0.56	1.1	0.0	0.0	0.0	0.91	0.1
	Igushik	1.3	0.0	4.3	0.46	1.6	2.4	0.9	4.2	0.02	1.0	1.3	0.0	3.5	0.28	1.2
	Wood	16.4	12.5	20.4	0.00	2.4	2.6	1.2	4.4	0.00	1.0	1.1	0.0	3.2	0.25	1.1
	Nushagak	0.5	0.0	3.2	0.67	1.1	0.1	0.0	0.7	0.85	0.3	0.0	0.0	0.0	0.90	0.2
	Kvichak	3.4	1.3	5.9	0.00	1.4	4.5	2.3	7.0	0.00	1.4	4.0	2.0	6.4	0.00	1.3
	Alagnak	0.8	0.1	1.8	0.01	0.5	1.3	0.4	2.6	0.00	0.7	2.3	1.0	3.9	0.00	0.9
	Naknek	6.7	4.5	9.3	0.00	1.5	5.7	3.5	8.3	0.00	1.5	2.6	1.1	4.5	0.00	1.1
	Egegik	3.6	1.4	6.2	0.00	1.5	11.1	5.9	19.3	0.00	4.2	5.6	1.5	10.1	0.01	2.6
	Ugashik	14.8	10.9	19.0	0.00	2.4	40.8	32.4	47.6	0.00	4.6	64.6	58.7	70.4	0.00	3.6
North Peninsula	Cinder	10.7	6.0	15.5	0.00	2.9	0.9	0.0	4.2	0.26	1.5	0.0	0.0	0.1	0.88	0.3
	Meshik	2.6	0.7	4.9	0.02	1.4	4.3	0.0	8.9	0.10	2.8	0.1	0.0	0.4	0.67	0.2
	Ilnik	14.1	10.5	18.1	0.00	2.3	5.8	3.1	9.0	0.00	1.8	1.4	0.5	2.7	0.00	0.7
	Sandy	3.7	1.8	5.9	0.00	1.2	2.4	1.0	4.1	0.00	1.0	1.3	0.3	2.7	0.01	0.7
	Bear	15.1	11.7	18.8	0.00	2.2	9.4	6.5	12.6	0.00	1.9	6.2	4.0	8.8	0.00	1.5
	Nelson	1.6	0.6	3.0	0.00	0.7	4.6	2.6	6.8	0.00	1.3	1.5	0.6	2.7	0.00	0.7
	NW Dist.-BH	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.1	0.4	0.0	1.7	0.60	0.6
South Peninsula		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.1	0.87	0.2	
Chignik	Black Lake	0.0	0.0	0.0	0.91	0.1	0.1	0.0	0.5	0.71	0.2	0.0	0.0	0.0	0.92	0.0
	Chignik Lake	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.2	0.86	0.2	0.0	0.0	0.0	0.92	0.0
East of WASSIP		4.0	2.4	5.9	0.00	1.1	1.7	0.7	2.9	0.00	0.7	7.6	5.4	10.1	0.00	1.4

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Appendix F8.—Ilnik Section northern statistical area, Northern District, Westward Region, 2007, temporal strata 1–3. Reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (6/20–6/29; H=121,611; n=441)					Stratum 2 (7/2–7/14; H=454,834; n=395)					Stratum 3 (7/16–7/31; H=158,781; n=396)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%			5%	95%			5%	95%				
Norton Sound		0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.91	0.1	0.6	0.0	1.4	0.10	0.5
Kuskokwim Bay	Kuskokwim R.	0.0	0.0	0.1	0.85	0.1	0.0	0.0	0.0	0.92	0.0	0.5	0.0	1.7	0.36	0.6
	Kanektok	0.0	0.0	0.0	0.92	0.1	1.5	0.0	4.0	0.32	1.4	0.0	0.0	0.0	0.88	0.1
	Goodnews	0.1	0.0	0.4	0.78	0.2	0.8	0.0	2.8	0.46	1.0	3.9	1.9	6.3	0.01	1.4
Bristol Bay	Togiak	0.0	0.0	0.1	0.81	0.1	0.6	0.0	1.9	0.30	0.7	1.0	0.0	3.1	0.32	1.1
	Igushik	3.8	1.7	6.2	0.00	1.4	3.2	1.0	5.7	0.01	1.4	1.4	0.0	3.3	0.13	1.1
	Wood	10.3	7.5	13.3	0.00	1.7	5.7	3.2	8.6	0.00	1.6	1.4	0.0	3.3	0.03	1.0
	Nushagak	0.0	0.0	0.2	0.86	0.2	0.3	0.0	1.6	0.68	0.6	0.2	0.0	1.2	0.63	0.5
	Kvichak	4.2	2.4	6.4	0.00	1.2	3.4	1.5	5.6	0.00	1.2	3.1	1.2	5.3	0.00	1.2
	Alagnak	0.2	0.0	0.8	0.26	0.3	3.3	1.7	5.2	0.00	1.1	1.7	0.6	3.2	0.00	0.8
	Naknek	5.9	3.9	8.2	0.00	1.3	8.2	5.7	11.0	0.00	1.6	5.2	3.3	7.4	0.00	1.3
	Egegik	4.7	2.1	7.9	0.00	1.8	6.3	3.4	10.2	0.00	2.2	3.4	0.0	8.2	0.12	2.7
	Ugashik	15.2	11.2	19.4	0.00	2.5	34.3	29.0	39.6	0.00	3.2	18.1	12.2	24.1	0.00	3.6
North Peninsula	Cinder	9.4	5.6	13.7	0.00	2.5	4.4	1.7	7.5	0.01	1.8	1.4	0.0	3.9	0.20	1.4
	Meshik	10.7	7.1	14.7	0.00	2.3	3.4	1.2	6.4	0.00	1.6	0.0	0.0	0.1	0.74	0.2
	Ilnik	14.6	10.8	18.6	0.00	2.4	2.5	1.0	5.0	0.00	1.3	0.0	0.0	0.1	0.80	0.2
	Sandy	2.8	1.4	4.6	0.00	1.0	2.7	1.2	4.7	0.00	1.1	1.3	0.1	2.8	0.03	0.8
	Bear	14.1	10.9	17.5	0.00	2.0	13.0	10.0	16.3	0.00	1.9	34.3	30.1	38.7	0.00	2.6
	Nelson	2.4	1.1	3.9	0.00	0.9	3.2	1.8	4.9	0.00	1.0	2.7	1.4	4.3	0.00	0.9
	NW Dist.-BH	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.90	0.1
South Peninsula		0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.91	0.1
Chignik	Black Lake	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.1	0.86	0.1
	Chignik Lake	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.3	0.85	0.2
East of WASSIP		1.7	0.6	3.2	0.00	0.8	3.2	1.8	5.0	0.00	1.0	19.6	16.2	23.2	0.00	2.1

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Appendix F9.—Ilnik Section northern statistical area, Northern District, Westward Region, 2008, temporal strata 2–3. Reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 2 (7/1–7/4; H=300,554; n=361)					Stratum 3 (7/5–7/11; H=199,551; n=331)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%		
Norton Sound		0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.1
Kuskokwim Bay	Kuskokwim R.	0.1	0.0	0.7	0.82	0.3	0.0	0.0	0.0	0.92	0.0
	Kanektok	0.0	0.0	0.0	0.86	0.1	0.2	0.0	1.0	0.77	0.5
	Goodnews	1.3	0.0	2.9	0.19	0.9	0.2	0.0	1.8	0.82	0.9
Bristol Bay	Togiak	0.3	0.0	1.8	0.61	0.6	3.5	1.3	5.9	0.02	1.4
	Igushik	7.5	3.2	12.2	0.00	2.8	9.2	5.4	13.3	0.00	2.4
	Wood	19.2	13.7	24.9	0.00	3.4	14.0	10.0	18.3	0.00	2.5
	Nushagak	6.7	3.5	10.3	0.00	2.1	4.0	1.7	6.9	0.00	1.6
	Kvichak	5.0	2.9	7.5	0.00	1.4	5.7	2.3	9.4	0.00	2.1
	Alagnak	4.5	2.6	6.7	0.00	1.3	2.9	1.3	4.9	0.00	1.1
	Naknek	10.9	7.7	14.4	0.00	2.0	10.5	7.1	14.3	0.00	2.2
	Egegik	2.4	0.0	5.6	0.12	1.9	11.0	5.1	17.2	0.01	3.7
Ugashik	19.1	14.5	24.0	0.00	2.9	24.9	18.2	32.2	0.00	4.3	
North Peninsula	Cinder	2.9	0.0	6.4	0.20	2.1	0.2	0.0	1.4	0.65	0.5
	Meshik	14.8	11.1	18.9	0.00	2.4	6.6	3.6	10.1	0.00	2.0
	Ilnik	1.5	0.2	4.7	0.00	1.5	0.0	0.0	0.0	0.89	0.1
	Sandy	0.1	0.0	0.6	0.80	0.3	0.0	0.0	0.0	0.92	0.0
	Bear	3.3	1.7	5.3	0.00	1.1	5.3	3.2	7.8	0.00	1.4
	Nelson	0.3	0.0	0.9	0.13	0.3	0.8	0.0	2.1	0.03	0.7
	NW Dist.-BH	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.0
South Peninsula		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.91	0.1	
Chignik	Black Lake	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.1
	Chignik Lake	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.89	0.1
East of WASSIP		0.3	0.0	0.8	0.00	0.3	1.0	0.3	2.0	0.00	0.6

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Appendix F10.—Outer Port Heiden Section, Northern District, Westward Region, 2007, temporal strata 1–3. Reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (6/20–6/27; H=85,576; n=394)					Stratum 2 (7/2–7/12; H=205,219; n=387)					Stratum 3 (7/16–7/30; H=96,991; n=398)							
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD			
Regional	Subregional		5%	95%			5%	95%			5%	95%			5%	95%			
Norton Sound		0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.90	0.2	0.1	0.0	0.7	0.85	0.4				
Kuskokwim Bay	Kuskokwim R.	0.3	0.0	1.4	0.66	0.5	0.0	0.0	0.89	0.2	0.1	0.0	0.6	0.43	0.2				
	Kanektok	0.1	0.0	0.6	0.86	0.4	0.0	0.0	0.91	0.1	0.2	0.0	1.0	0.62	0.4				
	Goodnews	0.0	0.0	0.0	0.92	0.1	0.2	0.0	1.1	0.67	0.4	1.1	0.0	6.7	0.72	2.3			
Bristol Bay	Togiak	0.0	0.0	0.0	0.86	0.1	0.2	0.0	0.8	0.38	0.3	3.6	0.0	6.3	0.14	2.0			
	Igushik	0.7	0.0	3.6	0.61	1.3	0.4	0.0	2.6	0.73	0.9	1.1	0.0	3.1	0.29	1.1			
	Wood	11.0	7.5	14.3	0.00	2.1	9.5	6.6	12.5	0.00	1.8	3.8	1.8	6.0	0.00	1.3			
	Nushagak	0.5	0.0	1.5	0.01	0.5	0.7	0.0	1.8	0.11	0.6	0.0	0.0	0.0	0.91	0.1			
	Kvichak	2.8	0.7	5.1	0.00	1.4	4.6	1.1	8.2	0.00	2.2	1.1	0.3	2.6	0.00	0.8			
	Alagnak	1.6	0.5	3.0	0.00	0.8	1.0	0.1	2.2	0.03	0.6	1.7	0.6	3.1	0.00	0.8			
	Naknek	5.6	3.4	8.0	0.00	1.4	10.2	6.8	13.9	0.00	2.2	1.7	0.6	3.1	0.00	0.8			
	Egegik	10.9	7.2	15.3	0.00	2.5	4.1	0.9	7.6	0.01	2.0	11.8	5.7	18.7	0.00	4.0			
	Ugashik	38.7	33.3	44.1	0.00	3.3	45.5	39.9	51.0	0.00	3.4	40.5	33.1	47.4	0.00	4.4			
North Peninsula	Cinder	9.1	4.4	14.6	0.00	3.1	3.6	0.7	6.6	0.02	1.8	3.9	1.1	6.7	0.02	1.7			
	Meshik	9.8	4.7	15.1	0.00	3.1	8.5	4.9	12.3	0.00	2.2	0.3	0.0	1.4	0.34	0.6			
	Ilnik	5.8	3.3	8.5	0.00	1.6	1.7	0.1	3.8	0.03	1.2	0.3	0.0	1.0	0.00	0.4			
	Sandy	0.0	0.0	0.2	0.87	0.2	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.91	0.1			
	Bear	1.4	0.1	3.2	0.01	0.9	7.0	4.7	9.5	0.00	1.5	18.4	14.8	22.3	0.00	2.3			
	Nelson	0.7	0.1	1.7	0.00	0.5	2.0	0.9	3.4	0.00	0.8	0.0	0.0	0.1	0.84	0.1			
	NW Dist.-BH	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1			
South Peninsula		0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.91	0.1	0.2	0.0	1.2	0.77	0.4				
Chignik	Black Lake	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.1				
	Chignik Lake	0.0	0.0	0.1	0.87	0.2	0.0	0.0	0.90	0.1	0.4	0.0	1.4	0.44	0.5				
East of WASSIP		1.1	0.3	2.5	0.00	0.7	1.0	0.3	2.0	0.00	0.5	9.9	6.5	14.0	0.00	2.3			

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Appendix F11.—Outer Port Heiden Section, Northern District, Westward Region, 2008, temporal strata 1–3. Reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (6/30–7/3; H=130,762; n=396)					Stratum 2 (7/7–7/9; H=148,270; n=379)					Stratum 3 (7/14–7/15; H=42,698; n=392)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%				5%	95%		
Norton Sound		0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.91	0.1
Kuskokwim Bay	Kuskokwim R.	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.1	0.1	0.0	0.3	0.85	0.2
	Kanektok	0.0	0.0	0.0	0.91	0.1	0.1	0.0	0.2	0.86	0.3	0.1	0.0	0.1	0.89	0.4
	Goodnews	1.0	0.0	2.6	0.25	0.9	0.0	0.0	0.0	0.90	0.1	0.1	0.0	0.8	0.85	0.5
Bristol Bay	Togiak	0.4	0.0	1.6	0.40	0.6	0.0	0.0	0.1	0.88	0.1	7.0	4.8	9.4	0.00	1.4
	Igushik	3.6	1.5	6.3	0.00	1.5	6.4	3.5	9.6	0.00	1.9	5.2	3.0	7.7	0.00	1.4
	Wood	10.0	6.9	13.3	0.00	2.0	9.0	5.8	12.4	0.00	2.0	3.4	1.7	5.5	0.00	1.2
	Nushagak	3.1	0.9	5.6	0.02	1.4	1.4	0.3	3.2	0.00	0.9	1.7	0.0	4.7	0.06	1.5
	Kvichak	1.0	0.0	3.5	0.01	1.2	2.2	0.0	5.9	0.00	2.0	0.9	0.0	4.1	0.00	1.4
	Alagnak	1.7	0.0	3.5	0.05	1.0	0.9	0.2	2.2	0.00	0.7	5.5	3.5	7.8	0.00	1.3
	Naknek	11.8	8.6	15.4	0.00	2.1	11.4	7.8	15.3	0.00	2.3	7.6	4.8	11.1	0.00	1.9
	Egegik	11.7	6.8	17.1	0.00	3.1	5.5	1.4	9.6	0.01	2.5	4.7	1.6	8.6	0.01	2.2
	Ugashik	32.7	26.5	39.0	0.00	3.8	47.1	41.3	53.1	0.00	3.6	53.8	47.6	59.8	0.00	3.7
North Peninsula	Cinder	3.1	0.0	7.2	0.16	2.3	1.0	0.0	3.5	0.36	1.2	0.2	0.0	1.2	0.80	0.5
	Meshik	19.7	15.1	24.6	0.00	2.9	11.9	8.7	15.4	0.00	2.1	2.9	1.3	5.0	0.00	1.1
	Ilnik	0.0	0.0	0.0	0.89	0.3	0.0	0.0	0.1	0.88	0.3	0.0	0.0	0.1	0.89	0.2
	Sandy	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.89	0.1	0.1	0.0	0.6	0.83	0.3
	Bear	0.1	0.0	0.7	0.64	0.4	3.1	1.5	5.0	0.00	1.1	6.0	3.9	8.3	0.00	1.4
	Nelson	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	NW Dist.-BH	0.0	0.0	0.3	0.79	0.1	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.3	0.81	0.1
South Peninsula		0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.0	0.1	0.0	0.3	0.79	0.2
Chignik	Black Lake	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Chignik Lake	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
East of WASSIP		0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.0	0.8	0.2	1.6	0.00	0.5

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

**APPENDIX G: BRISTOL BAY AREA, CENTRAL REGION,  
SUBREGIONAL STOCK COMPOSITION ESTIMATES**

Appendix G1.–Ugashik District, Bristol Bay Area, Central Region, 2006, temporal strata 1–3. Reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (6/12–7/2; H=176,394; n=445)					Stratum 2 (7/4–7/7; H=382,796; n=423)					Stratum 3 (7/8–7/11; H=512,849; n=396)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%				5%	95%		
Norton Sound		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.0	0.92	0.0
Kuskokwim Bay	Kuskokwim R.	1.6	0.0	3.2	0.10	0.9	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Kanektok	0.0	0.0	0.0	0.89	0.3	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.0
	Goodnews	0.1	0.0	0.5	0.81	0.2	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
Bristol Bay	Togiak	0.0	0.0	0.2	0.86	0.2	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Igushik	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.89	0.1	0.4	0.0	1.5	0.54	0.6
	Wood	2.5	1.3	4.0	0.00	0.8	0.9	0.2	2.0	0.00	0.6	0.4	0.0	1.3	0.37	0.5
	Nushagak	0.1	0.0	0.9	0.85	0.4	0.1	0.0	0.4	0.82	0.2	0.0	0.0	0.0	0.92	0.0
	Kvichak	3.5	0.7	6.0	0.00	1.6	0.8	0.2	1.6	0.00	0.4	3.7	1.7	6.2	0.00	1.4
	Alagnak	0.1	0.0	0.4	0.80	0.2	0.0	0.0	0.0	0.92	0.1	2.5	1.1	4.2	0.00	0.9
	Naknek	3.8	2.2	5.7	0.00	1.1	1.4	0.0	3.0	0.10	0.9	4.3	2.4	6.5	0.00	1.3
	Egegik	18.2	11.3	26.4	0.00	4.6	5.1	2.0	9.4	0.00	2.4	14.0	8.8	20.2	0.00	3.5
	Ugashik	64.8	56.2	72.6	0.00	5.0	91.4	86.7	95.1	0.00	2.6	73.4	66.6	79.4	0.00	3.9
North Peninsula	Cinder	4.0	2.0	6.6	0.00	1.4	0.0	0.0	0.0	0.89	0.1	0.1	0.0	1.2	0.81	0.5
	Meshik	1.1	0.0	4.3	0.53	1.6	0.3	0.0	1.8	0.70	0.7	0.3	0.0	1.6	0.69	0.6
	Ilnik	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.1	0.88	0.2	0.9	0.0	2.6	0.31	0.9
	Sandy	0.0	0.0	0.0	0.89	0.1	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0
	Bear	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1
	Nelson	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.1	0.87	0.1	0.0	0.0	0.0	0.92	0.0
	NW Dist.-BH	0.1	0.0	0.6	0.69	0.2	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
South Peninsula		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.0	
Chignik	Black Lake	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.91	0.1	
	Chignik Lake	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	
East of WASSIP		0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.



Appendix G2.–Ugashik District, Bristol Bay Area, Central Region, 2006, temporal strata 4-5. Reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 4 (7/12–7/16; H=537,147; n=386)					Stratum 5 (7/17–8/31; H=820,411; n=396)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%		
Norton Sound		0.0	0.0	0.3	0.86	0.2	0.0	0.0	0.0	0.92	0.0
Kuskokwim Bay	Kuskokwim R.	0.0	0.0	0.0	0.92	0.0	0.1	0.0	0.8	0.77	0.3
	Kanektok	0.0	0.0	0.0	0.91	0.1	0.2	0.0	1.2	0.73	0.4
	Goodnews	0.2	0.0	1.1	0.55	0.4	0.4	0.0	1.2	0.19	0.4
Bristol Bay	Togiak	0.1	0.0	0.6	0.55	0.2	0.0	0.0	0.0	0.90	0.1
	Igushik	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.90	0.1
	Wood	0.0	0.0	0.0	0.92	0.0	1.7	0.5	3.4	0.00	0.9
	Nushagak	0.0	0.0	0.0	0.92	0.0	0.3	0.0	1.6	0.55	0.6
	Kvichak	1.7	0.7	3.2	0.00	0.8	0.5	0.0	1.4	0.07	0.5
	Alagnak	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.90	0.1
	Naknek	0.7	0.0	2.4	0.34	0.9	0.0	0.0	0.2	0.80	0.2
	Egegik	8.1	3.9	13.9	0.00	3.1	2.0	0.0	8.5	0.15	2.9
	Ugashik	88.2	82.3	92.9	0.00	3.3	93.9	87.1	97.5	0.00	3.2
North Peninsula	Cinder	0.3	0.0	1.6	0.60	0.6	0.0	0.0	0.0	0.91	0.1
	Meshik	0.4	0.0	2.6	0.68	0.9	0.0	0.0	0.0	0.92	0.1
	Ilnik	0.0	0.0	0.1	0.88	0.2	0.0	0.0	0.0	0.92	0.0
	Sandy	0.0	0.0	0.0	0.91	0.1	0.8	0.0	2.2	0.23	0.7
	Bear	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.91	0.1
	Nelson	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.90	0.1
	NW Dist.-BH	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.90	0.1
South Peninsula		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.92	0.0	
Chignik	Black Lake	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Chignik Lake	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
East of WASSIP		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.92	0.0	

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Appendix G3.–Ugashik District, Bristol Bay Area, Central Region, 2007, temporal strata 1–3. Reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (6/12–6/25; H=55,428; n=396)					Stratum 2 (6/29–7/1; H=288,631; n=374)					Stratum 3 (7/2–7/7; H=1,274,764; n=453)				
		Mean	90% CI		P=0	SD	Mean	90% CI		P=0	SD	Mean	90% CI		P=0	SD
Regional	Subregional		5%	95%				5%	95%				5%	95%		
Norton Sound		0.0	0.0	0.2	0.87	0.2	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
Kuskokwim Bay	Kuskokwim R.	0.0	0.0	0.1	0.86	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Kanektok	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Goodnews	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
Bristol Bay	Togiak	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Igushik	1.3	0.0	3.0	0.18	1.0	0.1	0.0	0.8	0.81	0.3	0.0	0.0	0.2	0.84	0.1
	Wood	1.5	0.3	3.3	0.02	0.9	0.8	0.0	1.8	0.10	0.6	0.1	0.0	0.6	0.44	0.2
	Nushagak	0.1	0.0	0.5	0.83	0.2	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0
	Kvichak	1.5	0.3	3.1	0.00	0.9	3.0	0.4	6.5	0.00	2.1	2.2	0.2	4.7	0.00	1.5
	Alagnak	0.0	0.0	0.0	0.92	0.0	0.2	0.0	1.3	0.67	0.5	0.2	0.0	0.7	0.41	0.3
	Naknek	1.0	0.0	2.4	0.07	0.7	0.7	0.0	3.9	0.63	1.4	1.2	0.1	3.4	0.03	1.1
	Egegik	21.6	11.0	32.4	0.00	6.5	13.3	7.3	21.5	0.00	4.4	16.0	8.1	25.4	0.00	5.3
	Ugashik	56.6	45.4	67.6	0.00	6.7	81.7	73.3	88.4	0.00	4.6	80.2	70.7	88.3	0.00	5.4
North Peninsula	Cinder	15.9	12.3	19.7	0.00	2.3	0.1	0.0	0.6	0.85	0.4	0.0	0.0	0.0	0.90	0.1
	Meshik	0.0	0.0	0.0	0.90	0.2	0.0	0.0	0.0	0.90	0.2	0.0	0.0	0.0	0.91	0.1
	Ilnik	0.2	0.0	0.7	0.30	0.3	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.90	0.1
	Sandy	0.0	0.0	0.0	0.89	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Bear	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0
	Nelson	0.0	0.0	0.2	0.85	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	NW Dist.-BH	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
South Peninsula		0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	
Chignik	Black Lake	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.0	0.92	0.0
	Chignik Lake	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.0	0.93	0.0
East of WASSIP		0.3	0.0	0.8	0.05	0.3	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Appendix G4.–Ugashik District, Bristol Bay Area, Central Region, 2007, temporal strata 4–5. Reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 4 (7/8–7/11; H=1,162,109; n=387)					Stratum 5 (7/12–8/17; H=2,245,683; n=441)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%		
Norton Sound		0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0
Kuskokwim Bay	Kuskokwim R.	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.1
	Kanektok	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0
	Goodnews	0.4	0.0	1.5	0.46	0.5	0.0	0.0	0.0	0.92	0.0
Bristol Bay	Togiak	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0
	Igushik	0.4	0.0	1.6	0.47	0.6	0.0	0.0	0.3	0.83	0.1
	Wood	0.0	0.0	0.0	0.92	0.1	0.1	0.0	0.6	0.66	0.2
	Nushagak	0.0	0.0	0.0	0.89	0.1	0.0	0.0	0.0	0.92	0.0
	Kvichak	0.9	0.2	2.3	0.00	0.7	2.7	0.7	4.8	0.00	1.2
	Alagnak	0.1	0.0	0.5	0.77	0.2	1.8	0.7	3.2	0.00	0.8
	Naknek	0.3	0.0	1.0	0.15	0.4	3.2	1.8	4.9	0.00	1.0
	Egegik	12.5	6.0	22.4	0.00	5.1	7.3	0.0	30.5	0.34	9.7
Ugashik	84.4	74.4	91.2	0.00	5.2	84.6	61.6	93.8	0.00	9.8	
North Peninsula	Cinder	0.2	0.0	1.3	0.76	0.5	0.0	0.0	0.0	0.91	0.1
	Meshik	0.4	0.0	2.0	0.60	0.7	0.0	0.0	0.0	0.89	0.3
	Ilnik	0.3	0.0	1.4	0.46	0.5	0.0	0.0	0.0	0.92	0.0
	Sandy	0.0	0.0	0.3	0.81	0.2	0.0	0.0	0.0	0.92	0.0
	Bear	0.0	0.0	0.0	0.92	0.1	0.2	0.0	0.9	0.61	0.3
	Nelson	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0
	NW Dist.-BH	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
South Peninsula		0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.92	0.1
Chignik	Black Lake	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Chignik Lake	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
East of WASSIP		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0

*Note:* Stock composition estimates may not sum to 100% due to rounding error.

*Note:* Stock composition estimates may not sum to 100% due to rounding error.

*Note:* H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Appendix G5.–Ugashik District, Bristol Bay Area, Central Region, 2008, temporal strata 1–3. Reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (6/16–6/29; H=160,422; n=394)					Stratum 2 (7/2–7/3; H=364,550; n=285)					Stratum 3 (7/4–7/10; H=1,265,549; n=402)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%				5%	95%		
Norton Sound		0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.89	0.2	0.0	0.0	0.0	0.92	0.0
Kuskokwim Bay	Kuskokwim R.	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.0
	Kanektok	0.0	0.0	0.0	0.90	0.2	0.9	0.0	2.8	0.37	1.0	0.7	0.0	2.4	0.48	0.9
	Goodnews	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.1	0.3	0.0	1.5	0.57	0.5
Bristol Bay	Togiak	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.1	0.0	0.4	0.84	0.2
	Igushik	0.5	0.0	2.7	0.63	1.0	0.0	0.0	0.0	0.89	0.2	0.0	0.0	0.0	0.89	0.1
	Wood	1.8	0.0	3.8	0.20	1.3	0.5	0.0	1.6	0.21	0.6	0.0	0.0	0.0	0.91	0.1
	Nushagak	0.0	0.0	0.0	0.89	0.2	0.4	0.0	2.1	0.63	0.7	0.0	0.0	0.2	0.85	0.2
	Kvichak	5.9	3.6	8.7	0.00	1.6	0.8	0.0	2.9	0.00	1.0	2.5	0.6	4.8	0.00	1.3
	Alagnak	0.7	0.0	1.6	0.11	0.5	1.1	0.2	2.5	0.00	0.7	2.4	1.2	3.8	0.00	0.8
	Naknek	4.1	2.3	6.3	0.00	1.2	0.1	0.0	0.9	0.83	0.5	2.0	0.6	3.7	0.00	1.0
	Egegik	25.5	18.4	33.9	0.00	4.7	14.1	8.9	20.8	0.00	3.7	16.4	9.9	25.3	0.00	4.7
	Ugashik	59.6	51.1	67.1	0.00	4.9	81.8	74.8	87.5	0.00	3.9	75.4	66.4	82.3	0.00	4.9
North Peninsula	Cinder	1.7	0.5	3.3	0.00	0.9	0.0	0.0	0.1	0.88	0.2	0.0	0.0	0.0	0.91	0.1
	Meshik	0.0	0.0	0.1	0.88	0.1	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.91	0.1
	Ilnik	0.0	0.0	0.0	0.92	0.0	0.1	0.0	0.3	0.86	0.2	0.0	0.0	0.0	0.91	0.1
	Sandy	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1	0.2	0.0	0.8	0.53	0.3
	Bear	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0
	Nelson	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	NW Dist.-BH	0.0	0.0	0.0	0.92	0.0	0.1	0.0	0.7	0.79	0.3	0.0	0.0	0.2	0.86	0.1
South Peninsula		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.0	
Chignik	Black Lake	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Chignik Lake	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
East of WASSIP		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Appendix G6.–Ugashik District, Bristol Bay Area, Central Region, 2008, temporal strata 4–5. Reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 4 (7/11–7/13; H=277,143; n=386)					Stratum 5 (7/14–8/31; H=266,358; n=384)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%		
Norton Sound		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
Kuskokwim Bay	Kuskokwim R.	0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.92	0.0
	Kanektok	0.1	0.0	0.2	0.87	0.2	0.0	0.0	0.0	0.92	0.0
	Goodnews	0.1	0.0	0.6	0.78	0.2	0.1	0.0	0.5	0.73	0.2
Bristol Bay	Togiak	0.0	0.0	0.1	0.88	0.1	0.1	0.0	0.6	0.46	0.2
	Igushik	0.0	0.0	0.1	0.88	0.2	0.3	0.0	1.1	0.26	0.4
	Wood	0.2	0.0	1.4	0.79	0.5	0.1	0.0	0.6	0.71	0.2
	Nushagak	1.5	0.0	3.1	0.09	0.9	0.0	0.0	0.0	0.91	0.1
	Kvichak	0.2	0.0	1.9	0.80	0.7	0.1	0.0	0.5	0.77	0.4
	Alagnak	0.3	0.0	1.2	0.39	0.4	0.0	0.0	0.0	0.86	0.1
	Naknek	2.9	1.4	4.8	0.00	1.0	0.4	0.0	1.5	0.25	0.5
	Egegik	14.0	5.7	22.3	0.00	4.9	8.7	3.4	15.9	0.00	3.9
	Ugashik	80.4	71.9	88.9	0.00	5.1	90.1	82.8	95.5	0.00	4.0
North Peninsula	Cinder	0.4	0.0	1.7	0.59	0.6	0.0	0.0	0.0	0.91	0.1
	Meshik	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.91	0.1
	Ilnik	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.91	0.1
	Sandy	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.90	0.1
	Bear	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0
	Nelson	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	NW Dist.-BH	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
South Peninsula		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.92	0.0	
Chignik	Black Lake	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Chignik Lake	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
East of WASSIP		0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.0

*Note:* Stock composition estimates may not sum to 100% due to rounding error.

*Note:* H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Appendix G7.–Egegik District, Bristol Bay Area, Central Region, 2006, temporal strata 1–3. Reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (6/12–7/1; H=1,419,201; n=485) <sup>a</sup>					Stratum 2 (7/2–7/6; H=1,781,368; n=425) <sup>a</sup>					Stratum 3 (7/7–7/12; H=2,146,260; n=391) <sup>b</sup>				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%				5%	95%		
Norton Sound		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
Kuskokwim Bay	Kuskokwim R.	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Kanektok	0.7	0.0	1.9	0.25	0.6	0.0	0.0	0.2	0.85	0.1	0.0	0.0	0.0	0.92	0.0
	Goodnews	0.0	0.0	0.0	0.92	0.0	0.1	0.0	0.4	0.76	0.2	0.0	0.0	0.0	0.92	0.0
Bristol Bay	Togiak	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.2	0.85	0.1	0.0	0.0	0.0	0.92	0.0
	Igushik	0.0	0.0	0.0	0.91	0.1	0.6	0.0	2.2	0.50	0.8	0.0	0.0	0.0	0.91	0.1
	Wood	0.3	0.0	1.3	0.49	0.5	0.7	0.0	2.1	0.35	0.7	0.0	0.0	0.0	0.90	0.1
	Nushagak	0.3	0.0	1.3	0.45	0.5	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0
	Kvichak	0.7	0.1	1.8	0.00	0.5	0.3	0.0	0.8	0.00	0.3	1.5	0.0	3.9	0.25	1.3
	Alagnak	0.0	0.0	0.0	0.92	0.0	0.2	0.0	0.9	0.29	0.3	1.0	0.3	2.0	0.00	0.5
	Naknek	1.8	0.0	3.8	0.06	1.1	0.1	0.0	0.8	0.76	0.3	3.0	1.3	5.1	0.00	1.2
	Egegik	94.7	89.6	97.6	0.00	2.5	97.9	96.2	99.1	0.00	1.0	84.5	74.5	95.3	0.00	6.6
	Ugashik	1.4	0.0	6.4	0.24	2.2	0.1	0.0	0.1	0.88	0.5	9.9	0.0	20.0	0.19	6.7
North Peninsula	Cinder	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1
	Meshik	0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.91	0.1
	Ilnik	0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Sandy	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Bear	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Nelson	0.0	0.0	0.0	0.93	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	NW Dist.-BH	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
South Peninsula		0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
Chignik	Black Lake	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Chignik Lake	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.93	0.0	0.0	0.0	0.0	0.92	0.0
East of WASSIP		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

<sup>a</sup> Egegik River SHA only.

<sup>b</sup> 200 of 400 samples selected for analysis Egegik River SHA only.

Appendix G8.–Egegik District, Bristol Bay Area, Central Region, 2006, temporal strata 4–5. Reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 4 (7/13–7/15; H=1,043,036; n=398)					Stratum 5 (7/16–8/31; H=1,018,368; n=609)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%		
Norton Sound		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.1
Kuskokwim Bay	Kuskokwim R.	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.93	0.0
	Kanektok	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Goodnews	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.89	0.1
Bristol Bay	Togiak	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Igushik	0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.91	0.0
	Wood	0.0	0.0	0.0	0.92	0.0	0.1	0.0	0.5	0.57	0.2
	Nushagak	0.1	0.0	0.3	0.80	0.2	0.0	0.0	0.0	0.89	0.1
	Kvichak	1.8	0.3	4.4	0.00	1.3	9.3	6.9	11.9	0.00	1.5
	Alagnak	1.1	0.4	2.2	0.00	0.6	3.7	2.4	5.2	0.00	0.9
	Naknek	6.6	3.6	9.7	0.00	1.8	6.8	4.7	9.0	0.00	1.3
	Egegik	78.7	71.9	85.1	0.00	4.0	66.6	60.4	72.7	0.00	3.8
Ugashik	11.7	5.8	18.1	0.00	3.8	13.5	8.0	19.3	0.00	3.5	
North Peninsula	Cinder	0.0	0.0	0.0	0.92	0.0	0.1	0.0	0.5	0.84	0.2
	Meshik	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.1	0.88	0.1
	Ilnik	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0
	Sandy	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.93	0.0
	Bear	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Nelson	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.93	0.0
	NW Dist.-BH	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
South Peninsula		0.0	0.0	0.2	0.84	0.1	0.0	0.0	0.0	0.93	0.0
Chignik	Black Lake	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.93	0.0
	Chignik Lake	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.93	0.0
East of WASSIP		0.0	0.0	0.1	0.86	0.1	0.0	0.0	0.0	0.92	0.0

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Appendix G9.–Egegik District, Bristol Bay Area, Central Region, 2007, temporal strata 1–3. Reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (6/12–6/27; H=475,947; n=323)					Stratum 2 (6/28–7/3; H=1,237,701; n=398) <sup>a</sup>					Stratum 3 (7/4–7/8; H=2,115,321; n=399) <sup>a</sup>				
		Mean	90% CI		P=0	SD	Mean	90% CI		P=0	SD	Mean	90% CI		P=0	SD
Regional	Subregional		5%	95%				5%	95%				5%	95%		
Norton Sound		0.0	0.0	0.0	0.90	0.2	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
Kuskokwim Bay	Kuskokwim R.	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0	0.4	0.0	1.6	0.49	0.6
	Kanektok	0.3	0.0	2.2	0.80	0.8	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.89	0.3
	Goodnews	0.0	0.0	0.2	0.87	0.2	0.0	0.0	0.0	0.89	0.1	0.0	0.0	0.3	0.81	0.1
Bristol Bay	Togiak	0.9	0.0	2.5	0.10	0.8	0.0	0.0	0.0	0.92	0.1	0.2	0.0	0.8	0.13	0.3
	Igushik	1.6	0.0	5.2	0.45	1.9	0.0	0.0	0.3	0.80	0.1	0.0	0.0	0.0	0.92	0.0
	Wood	5.5	2.6	8.8	0.00	1.9	0.2	0.0	0.8	0.21	0.3	0.0	0.0	0.0	0.92	0.0
	Nushagak	1.0	0.0	3.5	0.34	1.2	0.0	0.0	0.0	0.91	0.1	0.3	0.0	1.3	0.63	0.5
	Kvichak	5.6	2.7	9.2	0.00	2.0	8.2	5.5	11.2	0.00	1.7	1.3	0.3	3.4	0.00	1.0
	Alagnak	1.9	0.7	3.6	0.00	0.9	1.4	0.5	2.6	0.00	0.7	1.5	0.5	2.8	0.00	0.7
	Naknek	6.1	3.5	9.2	0.00	1.7	2.0	0.7	3.7	0.00	0.9	6.1	3.0	9.5	0.00	2.0
	Egegik	76.5	71.3	81.2	0.00	3.0	79.3	72.0	86.3	0.00	4.3	89.2	84.7	92.8	0.00	2.5
	Ugashik	0.5	0.0	3.1	0.44	1.3	8.8	2.3	15.7	0.02	4.0	0.9	0.0	4.3	0.33	1.5
North Peninsula	Cinder	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.91	0.1
	Meshik	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.90	0.2
	Ilnik	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1
	Sandy	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Bear	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Nelson	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	NW Dist.-BH	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
South Peninsula		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	
Chignik	Black Lake	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	
	Chignik Lake	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	
East of WASSIP		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

<sup>a</sup> Egegik River SHA only.



Appendix G10.–Egegik District, Bristol Bay Area, Central Region, 2007, temporal strata 4–5. Reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 4 (7/9–7/14; H=1,965,468; n=399)					Stratum 5 (7/15–8/31; H=701,471; n=355)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%		
Norton Sound		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
Kuskokwim Bay	Kuskokwim R.	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Kanektok	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0
	Goodnews	0.4	0.0	1.4	0.46	0.5	0.1	0.0	0.6	0.83	0.3
Bristol Bay	Togiak	0.0	0.0	0.2	0.86	0.1	0.3	0.0	0.8	0.07	0.3
	Igushik	0.0	0.0	0.2	0.84	0.2	1.3	0.4	2.5	0.00	0.7
	Wood	1.0	0.2	2.0	0.00	0.6	0.0	0.0	0.0	0.90	0.1
	Nushagak	0.1	0.0	0.4	0.84	0.2	0.0	0.0	0.0	0.92	0.0
	Kvichak	16.3	12.3	20.6	0.00	2.5	5.8	3.3	8.7	0.00	1.7
	Alagnak	8.7	6.3	11.4	0.00	1.6	2.1	1.0	3.6	0.00	0.8
	Naknek	11.5	8.1	15.3	0.00	2.2	2.7	0.8	5.4	0.00	1.5
	Egegik	59.3	52.0	65.7	0.00	4.2	83.1	75.1	89.7	0.00	4.6
	Ugashik	2.6	0.0	9.0	0.49	3.3	4.5	0.0	12.4	0.31	4.5
North Peninsula	Cinder	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.1	0.87	0.2
	Meshik	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.90	0.1
	Ilnik	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.91	0.1
	Sandy	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Bear	0.1	0.0	0.4	0.81	0.2	0.0	0.0	0.0	0.92	0.0
	Nelson	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.1
	NW Dist.-BH	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
South Peninsula		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.92	0.0	
Chignik	Black Lake	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Chignik Lake	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0
East of WASSIP		0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.0

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Appendix G11.–Egegik District, Bristol Bay Area, Central Region, 2008, temporal strata 1–3. Reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (6/9–6/26; H=600,533; n=395)					Stratum 2 (6/27–6/29; H=1,092,595; n=397)					Stratum 3 (6/30–7/5; H=3,178,947; n=397)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%				5%	95%		
Norton Sound		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
Kuskokwim Bay	Kuskokwim R.	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Kanektok	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.92	0.0
	Goodnews	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.89	0.2	0.0	0.0	0.0	0.89	0.1
Bristol Bay	Togiak	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.89	0.1	0.0	0.0	0.0	0.91	0.1
	Igushik	0.0	0.0	0.0	0.89	0.1	1.3	0.0	2.9	0.11	0.9	0.0	0.0	0.0	0.89	0.1
	Wood	1.0	0.3	2.0	0.00	0.5	1.7	0.6	3.1	0.00	0.8	0.6	0.0	1.8	0.33	0.6
	Nushagak	0.0	0.0	0.0	0.92	0.0	0.4	0.0	2.3	0.70	0.8	0.3	0.0	1.5	0.58	0.5
	Kvichak	4.4	2.5	6.8	0.00	1.3	16.7	12.8	20.9	0.00	2.5	8.4	5.5	11.7	0.00	1.9
	Alagnak	0.7	0.1	1.6	0.02	0.5	4.5	2.6	6.7	0.00	1.3	2.6	1.2	4.3	0.00	1.0
	Naknek	4.3	2.4	6.5	0.00	1.3	15.4	11.8	19.3	0.00	2.3	10.7	7.8	13.9	0.00	1.9
	Egegik	85.7	79.5	91.2	0.00	3.6	59.1	53.5	64.3	0.00	3.3	70.6	63.9	77.9	0.00	4.2
Ugashik	3.9	0.0	9.5	0.13	3.1	0.8	0.0	4.8	0.54	1.7	6.7	0.0	12.6	0.12	3.8	
North Peninsula	Cinder	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0
	Meshik	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.1
	Ilnik	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Sandy	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.89	0.1	0.0	0.0	0.0	0.91	0.1
	Bear	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Nelson	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	NW Dist.-BH	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.90	0.1
South Peninsula		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.92	0.0	
Chignik	Black Lake	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.0	0.0	0.0	0.0	0.92	0.0
	Chignik Lake	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
East of WASSIP		0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Appendix G12.–Egegik District, Bristol Bay Area, Central Region, 2008, temporal strata 4–5. Reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 4 (7/6–7/8; H=1,233,792; n=397)					Stratum 5 (7/9–8/31; H=1,298,018; n=574)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%		
Norton Sound		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.1	0.87	0.1
Kuskokwim Bay	Kuskokwim R.	0.0	0.0	0.3	0.81	0.2	0.0	0.0	0.0	0.88	0.1
	Kanektok	0.1	0.0	0.6	0.77	0.2	0.0	0.0	0.0	0.91	0.1
	Goodnews	0.1	0.0	1.1	0.77	0.4	0.8	0.0	2.0	0.32	0.7
Bristol Bay	Togiak	0.0	0.0	0.1	0.88	0.2	0.4	0.0	1.4	0.49	0.5
	Igushik	0.0	0.0	0.1	0.87	0.2	1.4	0.0	2.7	0.12	0.8
	Wood	0.0	0.0	0.0	0.90	0.1	0.3	0.0	1.8	0.69	0.6
	Nushagak	0.8	0.0	2.0	0.19	0.7	0.0	0.0	0.0	0.92	0.1
	Kvichak	11.1	7.8	14.8	0.00	2.1	5.6	3.3	8.3	0.00	1.5
	Alagnak	3.7	2.1	5.5	0.00	1.0	3.4	2.1	4.8	0.00	0.8
	Naknek	6.6	3.7	10.0	0.00	1.9	8.8	6.5	11.3	0.00	1.5
	Egegik	73.5	66.1	80.2	0.00	4.4	79.1	75.3	82.6	0.00	2.2
	Ugashik	4.0	0.0	10.3	0.19	3.6	0.2	0.0	1.4	0.66	0.7
North Peninsula	Cinder	0.0	0.0	0.0	0.91	0.1	0.1	0.0	0.6	0.76	0.3
	Meshik	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.89	0.1
	Ilnik	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.90	0.1
	Sandy	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.93	0.0
	Bear	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Nelson	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.93	0.0
	NW Dist.-BH	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0
South Peninsula		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.91	0.1	
Chignik	Black Lake	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.93	0.0
	Chignik Lake	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
East of WASSIP		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.88	0.1	

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Appendix G13.–Naknek-Kvichak District, Bristol Bay Area, Central Region, 2006, temporal strata 1–3. Reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (6/19–7/9; H=2,209,098; n=690) <sup>a</sup>					Stratum 2 (7/10–7/10; H=235,526; n=239) <sup>b</sup>					Stratum 3 (7/11–7/13; H=2,035,734; n=539)				
		Mean	90% CI		P=0	SD	Mean	90% CI		P=0	SD	Mean	90% CI		P=0	SD
Regional	Subregional		5%	95%				5%	95%				5%	95%		
Norton Sound		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.90	0.1
Kuskokwim Bay	Kuskokwim R.	0.1	0.0	0.4	0.70	0.1	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.0
	Kanektok	0.0	0.0	0.0	0.89	0.1	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.0
	Goodnews	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.89	0.2	0.0	0.0	0.0	0.91	0.1
Bristol Bay	Togiak	0.0	0.0	0.0	0.92	0.0	0.3	0.0	1.1	0.36	0.4	0.0	0.0	0.0	0.92	0.0
	Igushik	0.0	0.0	0.0	0.89	0.1	0.0	0.0	0.0	0.91	0.1	0.2	0.0	1.0	0.55	0.4
	Wood	0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.92	0.1	0.2	0.0	0.7	0.42	0.2
	Nushagak	0.2	0.0	0.6	0.39	0.2	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.90	0.1
	Kvichak	4.9	3.3	6.7	0.00	1.0	33.5	27.7	39.4	0.00	3.6	49.3	45.2	53.3	0.00	2.5
	Alagnak	3.7	2.5	5.2	0.00	0.8	15.8	11.8	20.2	0.00	2.6	24.9	21.7	28.4	0.00	2.0
	Naknek	91.0	88.7	93.1	0.00	1.3	47.4	41.1	53.7	0.00	3.8	11.6	8.9	14.6	0.00	1.7
	Egegik	0.1	0.0	0.7	0.74	0.3	2.9	0.0	6.4	0.05	2.0	11.4	8.4	14.6	0.00	1.9
	Ugashik	0.0	0.0	0.1	0.87	0.1	0.1	0.0	0.1	0.89	0.4	2.1	0.0	4.7	0.07	1.4
North Peninsula	Cinder	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.92	0.0
	Meshik	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.91	0.1
	Ilnik	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.0
	Sandy	0.0	0.0	0.0	0.93	0.0	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.0
	Bear	0.0	0.0	0.0	0.93	0.0	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.0
	Nelson	0.0	0.0	0.0	0.93	0.0	0.0	0.0	0.0	0.92	0.0	0.2	0.0	0.9	0.44	0.3
	NW Dist.-BH	0.0	0.0	0.0	0.93	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
South Peninsula		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1
Chignik	Black Lake	0.0	0.0	0.0	0.93	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.0
	Chignik Lake	0.0	0.0	0.0	0.93	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
East of WASSIP		0.0	0.0	0.0	0.93	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

<sup>a</sup> Naknek River SHA only.

<sup>b</sup> Naknek-Kvichak District set gillnet only.

Appendix G14.–Naknek-Kvichak District, Bristol Bay Area, Central Region, 2006, temporal strata 4–6. Reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 4 (7/14–7/17; H=1,335,678; n=425)					Stratum 5 (7/18–8/25; H=1,089,931; n=351)					Stratum 6 (7/7–7/12; H=45,975; n=164) <sup>a</sup>				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%			5%	95%			5%	95%				
Norton Sound		0.0	0.0	0.1	0.88	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1
Kuskokwim Bay	Kuskokwim R.	0.0	0.0	0.1	0.87	0.1	0.0	0.0	0.0	0.91	0.1	0.1	0.0	0.0	0.89	0.4
	Kanektok	0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1
	Goodnews	0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1
Bristol Bay	Togiak	0.0	0.0	0.1	0.88	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1
	Igushik	0.2	0.0	1.4	0.74	0.5	0.0	0.0	0.1	0.88	0.1	0.0	0.0	0.0	0.90	0.3
	Wood	2.6	1.2	4.1	0.00	0.9	0.2	0.0	0.8	0.34	0.3	14.9	10.2	20.1	0.00	3.0
	Nushagak	0.4	0.0	1.2	0.21	0.4	0.3	0.0	0.9	0.20	0.3	2.9	0.5	6.8	0.02	2.0
	Kvichak	39.7	35.0	44.3	0.00	2.8	46.4	41.4	51.4	0.00	3.0	20.1	14.5	26.2	0.00	3.6
	Alagnak	26.5	22.7	30.4	0.00	2.3	36.2	31.6	40.8	0.00	2.8	54.3	47.4	61.1	0.00	4.1
	Naknek	27.9	23.6	32.5	0.00	2.7	16.3	12.5	20.5	0.00	2.4	0.1	0.0	0.0	0.89	0.4
	Egegik	2.5	1.0	4.4	0.00	1.1	0.0	0.0	0.1	0.82	0.1	7.3	3.5	11.7	0.00	2.5
	Ugashik	0.2	0.0	1.3	0.70	0.5	0.0	0.0	0.2	0.84	0.2	0.3	0.0	2.1	0.82	0.9
North Peninsula	Cinder	0.0	0.0	0.0	0.90	0.1	0.5	0.0	1.5	0.22	0.5	0.0	0.0	0.0	0.91	0.1
	Meshik	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1
	Ilnik	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.91	0.1
	Sandy	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1
	Bear	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.1
	Nelson	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.1
	NW Dist.-BH	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.3	0.82	0.1	0.0	0.0	0.0	0.91	0.1
South Peninsula		0.0	0.0	0.0	0.89	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.1
Chignik	Black Lake	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1
	Chignik Lake	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.1
East of WASSIP		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.92	0.1

*Note:* Stock composition estimates may not sum to 100% due to rounding error.

*Note:* H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

<sup>a</sup> Alagnak River SHA only.

Appendix G15.—Naknek-Kvichak District, Bristol Bay Area, Central Region, 2006, temporal stratum 7. Reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 7 (7/10–8/4; H=198,598; n=190) <sup>a</sup>				
		Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%		
Norton Sound		0.0	0.0	0.0	0.91	0.1
Kuskokwim Bay	Kuskokwim R.	0.0	0.0	0.0	0.92	0.1
	Kanektok	0.0	0.0	0.0	0.91	0.1
	Goodnews	0.0	0.0	0.0	0.92	0.1
Bristol Bay	Togiak	0.0	0.0	0.0	0.92	0.1
	Igushik	0.2	0.0	1.4	0.80	0.6
	Wood	0.3	0.0	1.6	0.63	0.6
	Nushagak	0.1	0.0	0.1	0.89	0.3
	Kvichak	41.1	34.5	47.8	0.00	4.1
	Alagnak	28.4	22.5	34.5	0.00	3.6
	Naknek	21.4	15.4	27.7	0.00	3.7
	Egegik	7.8	4.0	12.2	0.00	2.5
	Ugashik	0.5	0.0	2.7	0.56	1.0
North Peninsula	Cinder	0.1	0.0	0.7	0.84	0.5
	Meshik	0.0	0.0	0.1	0.88	0.3
	Ilnik	0.0	0.0	0.0	0.91	0.1
	Sandy	0.0	0.0	0.0	0.91	0.1
	Bear	0.0	0.0	0.0	0.92	0.1
	Nelson	0.0	0.0	0.0	0.89	0.2
	NW Dist.-BH	0.0	0.0	0.0	0.92	0.1
South Peninsula		0.0	0.0	0.0	0.89	0.2
Chignik	Black Lake	0.0	0.0	0.0	0.90	0.1
	Chignik Lake	0.0	0.0	0.0	0.89	0.1
East of WASSIP		0.0	0.0	0.0	0.92	0.1

*Note:* Stock composition estimates may not sum to 100% due to rounding error.

*Note:* H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

<sup>a</sup> Kvichak Section set gillnet only.

Appendix G16.–Naknek-Kvichak District, Bristol Bay Area, Central Region, 2007, temporal strata 1–3. Reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (6/12–6/27; H=351,509; n=295) <sup>a</sup>					Stratum 2 (6/28–7/8; H=3,922,415; n=397) <sup>b</sup>					Stratum 3 (7/9–7/12; H=2,428,294; n=403)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%				5%	95%		
Norton Sound		0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.92	0.0
Kuskokwim Bay	Kuskokwim R.	0.0	0.0	0.0	0.90	0.2	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.91	0.1
	Kanektok	0.1	0.0	0.8	0.84	0.5	0.0	0.0	0.0	0.92	0.1	1.0	0.0	3.4	0.52	1.3
	Goodnews	0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.1
Bristol Bay	Togiak	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.89	0.2
	Igushik	1.6	0.0	5.3	0.45	2.0	0.0	0.0	0.2	0.86	0.2	0.1	0.0	0.5	0.81	0.3
	Wood	7.8	4.3	11.5	0.00	2.2	0.0	0.0	0.0	0.91	0.1	0.7	0.0	1.9	0.03	0.6
	Nushagak	3.1	0.6	6.6	0.01	1.9	0.0	0.0	0.0	0.91	0.1	2.3	0.3	4.6	0.01	1.3
	Kvichak	24.5	19.5	29.7	0.00	3.1	11.7	8.8	14.9	0.00	1.9	35.1	30.3	39.9	0.00	2.9
	Alagnak	8.0	5.0	11.5	0.00	2.0	10.0	7.3	13.0	0.00	1.7	24.5	20.6	28.5	0.00	2.4
	Naknek	48.1	42.2	54.1	0.00	3.6	76.4	72.0	80.6	0.00	2.6	34.3	29.6	39.2	0.00	2.9
	Egegik	5.4	2.5	8.8	0.00	1.9	1.8	0.0	3.9	0.11	1.2	1.7	0.0	3.6	0.05	1.1
	Ugashik	1.2	0.0	3.9	0.36	1.4	0.0	0.0	0.0	0.91	0.1	0.3	0.0	2.2	0.76	0.8
North Peninsula	Cinder	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.1
	Meshik	0.0	0.0	0.0	0.89	0.2	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.90	0.1
	Ilnik	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0
	Sandy	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Bear	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Nelson	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	NW Dist.-BH	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
South Peninsula		0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.1	0.87	0.1
Chignik	Black Lake	0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Chignik Lake	0.0	0.0	0.0	0.89	0.1	0.0	0.0	0.0	0.93	0.0	0.0	0.0	0.0	0.92	0.0
East of WASSIP		0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0

*Note:* Stock composition estimates may not sum to 100% due to rounding error.

*Note:* H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

<sup>a</sup> 240 of 300 samples selected from Naknek-Kvichak District set gillnet; 60 samples Naknek Section.

<sup>b</sup> Both Naknek River SHA and Alagnak River SHA.

Appendix G17.–Naknek-Kvichak District, Bristol Bay Area, Central Region, 2007, temporal strata 4–5. Reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 4 (7/13–7/16; H=1,732,003; n=399)					Stratum 5 (7/17–8/21; H=588,290; n=260)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%		
Norton Sound		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1
Kuskokwim Bay	Kuskokwim R.	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.90	0.2
	Kanektok	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.1
	Goodnews	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.2	0.87	0.2
Bristol Bay	Togiak	0.0	0.0	0.2	0.83	0.1	0.0	0.0	0.0	0.90	0.1
	Igushik	0.3	0.0	1.8	0.69	0.7	0.0	0.0	0.2	0.87	0.2
	Wood	0.2	0.0	1.3	0.69	0.5	0.0	0.0	0.0	0.91	0.1
	Nushagak	1.2	0.0	3.1	0.23	1.1	0.5	0.0	2.4	0.62	0.9
	Kvichak	31.7	27.2	36.4	0.00	2.8	32.0	26.1	38.0	0.00	3.6
	Alagnak	35.5	31.1	40.0	0.00	2.7	36.4	31.1	41.9	0.00	3.3
	Naknek	30.1	25.4	35.0	0.00	2.9	30.3	24.3	36.4	0.00	3.7
	Egegik	0.8	0.0	2.6	0.32	0.9	0.3	0.0	2.3	0.77	0.8
	Ugashik	0.1	0.0	0.2	0.87	0.3	0.1	0.0	0.2	0.87	0.3
North Peninsula	Cinder	0.0	0.0	0.0	0.92	0.0	0.2	0.0	1.2	0.74	0.5
	Meshik	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1
	Ilnik	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1
	Sandy	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Bear	0.0	0.0	0.0	0.92	0.0	0.1	0.0	0.5	0.79	0.2
	Nelson	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.1
	NW Dist.-BH	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.90	0.1
South Peninsula		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.92	0.0	
Chignik	Black Lake	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Chignik Lake	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
East of WASSIP		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.90	0.1	

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.



Appendix G18.—Naknek-Kvichak District, Bristol Bay Area, Central Region, 2008, temporal strata 1–3. Reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (6/16–7/1; H=1,576,189; n=573) <sup>a</sup>					Stratum 2 (7/2–7/5; H=2,649,901; n=396) <sup>a</sup>					Stratum 3 (7/6–7/9; H=2,545,988; n=403) <sup>a</sup>				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%			5%	95%			5%	95%				
Norton Sound		0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.0
Kuskokwim Bay	Kuskokwim R.	0.4	0.0	1.4	0.40	0.5	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0
	Kanektok	0.0	0.0	0.0	0.89	0.2	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.89	0.1
	Goodnews	0.0	0.0	0.0	0.92	0.0	0.2	0.0	1.4	0.69	0.5	0.2	0.0	0.9	0.60	0.3
Bristol Bay	Togiak	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.90	0.1	0.1	0.0	0.5	0.81	0.2
	Igushik	0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.3	0.84	0.2	0.0	0.0	0.1	0.88	0.2
	Wood	2.2	1.2	3.5	0.00	0.7	0.1	0.0	0.3	0.80	0.2	1.3	0.3	2.7	0.03	0.7
	Nushagak	0.3	0.0	1.3	0.44	0.5	0.2	0.0	0.9	0.49	0.4	0.6	0.0	2.2	0.48	0.8
	Kvichak	32.0	28.0	36.2	0.00	2.5	25.0	20.6	29.6	0.00	2.8	19.6	15.5	23.8	0.00	2.6
	Alagnak	8.3	6.2	10.7	0.00	1.4	17.6	14.1	21.4	0.00	2.2	14.3	11.2	17.6	0.00	2.0
	Naknek	46.3	41.9	50.7	0.00	2.7	54.4	49.3	59.5	0.00	3.1	58.2	53.1	63.1	0.00	3.0
	Egegik	10.2	7.6	12.9	0.00	1.6	2.2	0.6	4.4	0.00	1.2	5.7	3.5	8.2	0.00	1.4
Ugashik	0.1	0.0	0.3	0.86	0.3	0.0	0.0	0.0	0.90	0.2	0.0	0.0	0.0	0.89	0.2	
North Peninsula	Cinder	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.91	0.1
	Meshik	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.91	0.1
	Ilnik	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Sandy	0.0	0.0	0.0	0.93	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Bear	0.0	0.0	0.1	0.86	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Nelson	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	NW Dist.-BH	0.0	0.0	0.0	0.93	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
South Peninsula		0.0	0.0	0.0	0.90	0.1	0.1	0.0	0.4	0.79	0.2	0.0	0.0	0.0	0.92	0.0
Chignik	Black Lake	0.0	0.0	0.0	0.93	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Chignik Lake	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.89	0.1	0.0	0.0	0.0	0.92	0.0
East of WASSIP		0.0	0.0	0.0	0.89	0.1	0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.92	0.0

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

<sup>a</sup> Naknek-Kvichak District set gillnet only.

Appendix G19.–Naknek-Kvichak District, Bristol Bay Area, Central Region, 2008, temporal strata 4–6. Reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 4 (7/10–7/14; H=1,881,391; n=418) <sup>a</sup>					Stratum 5 (7/15–8/31; H=1,009,609; n=391)					Stratum 6 (6/19–7/29; H=718,766; n=385) <sup>b</sup>				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional															
Norton Sound		0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.90	0.1	
Kuskokwim Bay	Kuskokwim R.	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.2	0.87	0.2
	Kanektok	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.0	0.5	0.0	1.8	0.35	0.6
	Goodnews	0.0	0.0	0.0	0.92	0.0	0.1	0.0	0.8	0.71	0.3	0.0	0.0	0.0	0.92	0.1
Bristol Bay	Togiak	0.0	0.0	0.0	0.92	0.0	0.3	0.0	1.0	0.46	0.4	0.0	0.0	0.0	0.92	0.0
	Igushik	0.2	0.0	1.2	0.80	0.5	0.1	0.0	0.4	0.86	0.3	0.7	0.0	2.1	0.23	0.7
	Wood	1.6	0.2	3.2	0.03	0.9	0.8	0.0	1.9	0.08	0.6	0.1	0.0	0.3	0.84	0.2
	Nushagak	0.2	0.0	1.1	0.77	0.4	0.5	0.0	2.4	0.65	0.9	0.2	0.0	0.9	0.59	0.3
	Kvichak	13.4	10.0	17.1	0.00	2.2	24.4	20.0	29.0	0.00	2.7	48.2	43.4	53.1	0.00	3.0
	Alagnak	18.4	15.0	21.9	0.00	2.1	37.5	33.1	42.1	0.00	2.7	37.2	32.8	41.6	0.00	2.7
	Naknek	64.1	59.3	68.8	0.00	2.9	25.5	21.2	30.1	0.00	2.7	12.8	9.1	16.7	0.00	2.3
	Egegik	2.1	0.6	3.9	0.00	1.0	6.5	3.2	11.0	0.00	2.4	0.0	0.0	0.2	0.58	0.1
	Ugashik	0.0	0.0	0.0	0.92	0.1	4.3	0.0	8.0	0.11	2.4	0.0	0.0	0.0	0.90	0.1
North Peninsula	Cinder	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.0
	Meshik	0.1	0.0	0.3	0.85	0.2	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Ilnik	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.89	0.1
	Sandy	0.0	0.0	0.1	0.88	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Bear	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Nelson	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.92	0.0
	NW Dist.-BH	0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
South Peninsula		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.92	0.0	0.2	0.0	0.7	0.16	0.3	
Chignik	Black Lake	0.0	0.0	0.1	0.86	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Chignik Lake	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
East of WASSIP		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.0

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

<sup>a</sup> Naknek-Kvichak District set gillnet only.

<sup>b</sup> Kvichak Section set gillnet only.

Appendix G20.–Nushagak District, Bristol Bay Area, Central Region, 2006, temporal strata 1–3. Reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (6/11–6/29; H=2,577,971; n=477)					Stratum 2 (6/30–7/5; H=3,635,772; n=396)					Stratum 3 (7/6–7/10; H=2,689,416; n=452)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional															
Norton Sound		0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.0
Kuskokwim Bay	Kuskokwim R.	0.4	0.0	2.7	0.68	1.0	2.2 <sup>a</sup>	0.0	6.1	0.08	1.9	5.5 <sup>a</sup>	2.6	8.8	0.00	1.9
	Kanektok	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.90	0.2	0.0	0.0	0.0	0.92	0.1
	Goodnews	0.0	0.0	0.0	0.92	0.1	0.9	0.0	3.2	0.47	1.2	0.0	0.0	0.0	0.92	0.1
Bristol Bay	Togiak	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.90	0.2	0.0	0.0	0.0	0.90	0.1
	Igushik	0.1	0.0	0.5	0.66	0.3	0.3	0.0	2.2	0.82	0.9	6.5	2.6	10.6	0.02	2.5
	Wood	84.5	81.0	87.7	0.00	2.1	73.2	68.2	77.8	0.00	2.9	70.5	65.3	75.6	0.00	3.1
	Nushagak	15.0	11.4	18.7	0.00	2.2	23.3	18.2	28.5	0.00	3.1	17.3	13.0	21.7	0.00	2.6
	Kvichak	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.2	0.0	0.8	0.09	0.3
	Alagnak	0.0	0.0	0.0	0.92	0.0	0.1	0.0	0.3	0.82	0.2	0.0	0.0	0.0	0.90	0.1
	Naknek	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Egegik	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.1	0.88	0.1
	Ugashik	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.91	0.1
North Peninsula	Cinder	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0
	Meshik	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Ilnik	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Sandy	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Bear	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Nelson	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	NW Dist.-BH	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
South Peninsula		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.1	0.88	0.2	0.0	0.0	0.0	0.92	0.0
Chignik	Black Lake	0.0	0.0	0.0	0.93	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Chignik Lake	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
East of WASSIP		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

<sup>a</sup> Baseline evaluation tests suggest misallocations among reporting groups with sea/river-type sockeye salmon. Biases toward lower-represented reporting groups are likely between Kuskokwim R., Kanektok, Goodnews, Togiak, and Nushagak reporting groups.

Appendix G21.–Nushagak District, Bristol Bay Area, Central Region, 2006, temporal strata 4–6. Reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 4 (7/11–7/15; H=1,322,670; n=385)					Stratum 5 (7/16–8/20; H=472,266; n=397)					Stratum 6 (6/22–7/25; H=178,262; n=190) <sup>a</sup>				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional															
Norton Sound		0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.1
Kuskokwim Bay	Kuskokwim R.	3.9 <sup>b</sup>	0.0	7.7	0.09	2.4	0.0	0.0	0.1	0.76	0.2	0.1	0.0	1.0	0.86	0.6
	Kanektok	0.1	0.0	0.7	0.69	0.3	0.4	0.0	1.5	0.42	0.5	0.0	0.0	0.1	0.88	0.2
	Goodnews	0.0	0.0	0.0	0.90	0.1	0.8	0.0	2.4	0.34	0.9	0.0	0.0	0.0	0.90	0.2
Bristol Bay	Togiak	0.0	0.0	0.1	0.87	0.1	0.4	0.0	1.5	0.55	0.6	0.0	0.0	0.0	0.91	0.1
	Igushik	0.9	0.0	4.9	0.41	1.7	3.9	0.0	8.3	0.15	2.6	97.4	93.8	99.5	0.00	1.9
	Wood	78.1	73.0	82.6	0.00	2.9	73.6	68.4	78.8	0.00	3.1	0.7	0.0	3.7	0.10	1.4
	Nushagak	16.7	12.0	22.1	0.00	3.1	20.8	16.8	25.1	0.00	2.5	1.6	0.0	3.9	0.09	1.2
	Kvichak	0.0	0.0	0.2	0.86	0.1	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.1
	Alagnak	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1
	Naknek	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.1
	Egegik	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.1
	Ugashik	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1
North Peninsula	Cinder	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1
	Meshik	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.1
	Ilnik	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.1
	Sandy	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.1
	Bear	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.1
	Nelson	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.1
	NW Dist.-BH	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1
South Peninsula		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.1	
Chignik	Black Lake	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.1
	Chignik Lake	0.0	0.0	0.0	0.89	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.1
East of WASSIP		0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

<sup>a</sup> Igushik Section only.

<sup>b</sup> Baseline evaluation tests suggest misallocations among reporting groups with sea/river-type sockeye salmon. Biases toward lower-represented reporting groups are likely between Kuskokwim R., Kanektok, Goodnews, Togiak, and Nushagak reporting groups.

Appendix G 22.–Nushagak District, Bristol Bay Area, Central Region, 2007, temporal strata 1–3. Reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (6/9–6/28; H=1,498,165; n=467)					Stratum 2 (6/29–7/2; H=1,875,216; n=412)					Stratum 3 (7/3–7/7; H=2,570,751; n=398)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%			5%	95%			5%	95%				
Norton Sound		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.92	0.1		
Kuskokwim Bay	Kuskokwim R.	0.5	0.0	2.0	0.00	0.8	0.3	0.0	0.8	0.00	0.3	0.2	0.0	0.9	0.86	0.8
	Kanektok	0.0	0.0	0.0	0.85	0.2	1.4	0.0	5.3	0.51	1.9	0.0	0.0	0.0	0.89	0.3
	Goodnews	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.89	0.1	0.1	0.0	0.6	0.82	0.3
Bristol Bay	Togiak	0.0	0.0	0.0	0.87	0.1	0.0	0.0	0.0	0.91	0.1	0.1	0.0	0.5	0.81	0.2
	Igushik	4.4	2.0	7.3	0.00	1.6	1.5	0.0	6.6	0.44	2.4	0.3	0.0	2.6	0.79	1.0
	Wood	74.9	70.0	79.6	0.00	2.9	77.9	71.9	82.9	0.00	3.4	73.9	69.3	78.1	0.00	2.7
	Nushagak	20.1	15.7	24.6	0.00	2.7	17.8	13.4	22.4	0.00	2.7	25.4	21.1	29.8	0.00	2.6
	Kvichak	0.0	0.0	0.0	0.89	0.1	0.1	0.0	0.5	0.78	0.2	0.0	0.0	0.0	0.91	0.1
	Alagnak	0.0	0.0	0.0	0.91	0.1	0.1	0.0	0.6	0.69	0.2	0.0	0.0	0.0	0.92	0.0
	Naknek	0.0	0.0	0.0	0.92	0.0	0.9	0.0	2.0	0.09	0.6	0.0	0.0	0.0	0.92	0.1
	Egegik	0.0	0.0	0.0	0.91	0.0	0.0	0.0	0.2	0.85	0.1	0.0	0.0	0.0	0.92	0.0
	Ugashik	0.0	0.0	0.0	0.91	0.0	0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.92	0.0
North Peninsula	Cinder	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Meshik	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Ilnik	0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1
	Sandy	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Bear	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Nelson	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	NW Dist.-BH	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
South Peninsula		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	
Chignik	Black Lake	0.0	0.0	0.0	0.93	0.0	0.0	0.0	0.0	0.93	0.0	0.0	0.0	0.0	0.92	0.0
	Chignik Lake	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
East of WASSIP		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Appendix G 23.–Nushagak District, Bristol Bay Area, Central Region, 2007, temporal strata 4–5. Reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 4 (7/8–7/12; H=1,830,266; n=396)					Stratum 5 (7/13–8/31; H=629,713; n=399)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%		
Norton Sound		0.2	0.0	1.3	0.78	0.5	0.0	0.0	0.0	0.92	0.0
Kuskokwim Bay	Kuskokwim R.	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.91	0.2
	Kanektok	0.0	0.0	0.1	0.88	0.2	6.4 <sup>a</sup>	0.7	10.5	0.00	2.7
	Goodnews	1.6	0.0	3.4	0.10	1.0	0.7	0.0	4.8	0.50	1.7
Bristol Bay	Togiak	0.1	0.0	0.7	0.80	0.4	6.4	4.0	9.0	0.00	1.7
	Igushik	6.2	0.0	11.7	0.07	3.4	9.7	4.8	16.1	0.00	3.5
	Wood	67.0	60.4	73.6	0.00	4.0	52.8	45.7	59.3	0.00	4.1
	Nushagak	24.9	20.2	29.6	0.00	2.8	18.1	13.6	23.0	0.00	2.9
	Kvichak	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1
	Alagnak	0.0	0.0	0.0	0.90	0.1	0.1	0.0	0.7	0.69	0.3
	Naknek	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.90	0.1
	Egegik	0.0	0.0	0.0	0.92	0.0	0.2	0.0	1.3	0.82	0.6
	Ugashik	0.1	0.0	0.5	0.82	0.2	5.5	3.4	7.8	0.00	1.3
North Peninsula	Cinder	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0
	Meshik	0.0	0.0	0.1	0.88	0.1	0.0	0.0	0.0	0.92	0.0
	Ilnik	0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.91	0.1
	Sandy	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Bear	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Nelson	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	NW Dist.-BH	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0
South Peninsula		0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.0
Chignik	Black Lake	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Chignik Lake	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
East of WASSIP		0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0

*Note:* Stock composition estimates may not sum to 100% due to rounding error.

*Note:* H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

<sup>a</sup> Baseline evaluation tests suggest misallocations among reporting groups with sea/river-type sockeye salmon. Biases toward lower-represented reporting groups are likely between Kuskokwim R., Kanektok, Goodnews, Togiak, and Nushagak reporting groups.

Appendix G24.–Nushagak District, Bristol Bay Area, Central Region, 2008, temporal strata 1–3. Reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (6/9–7/1; H=1,908,168; n=426)					Stratum 2 (7/2–7/3; H=1,252,366; n=181)					Stratum 3 (7/4–7/6; H=1,097,706; n=277)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%				5%	95%		
Norton Sound		0.0	0.0	0.0	0.92	0.1	0.1	0.0	0.1	0.88	0.3	0.0	0.0	0.0	0.90	0.3
Kuskokwim Bay	Kuskokwim R.	0.0	0.0	0.0	0.92	0.2	0.1	0.0	0.2	0.87	0.4	0.2	0.0	1.2	0.86	0.9
	Kanektok	0.1	0.0	0.6	0.84	0.5	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.89	0.2
	Goodnews	0.1	0.0	0.5	0.85	0.3	0.3	0.0	2.0	0.66	0.7	0.0	0.0	0.0	0.91	0.1
Bristol Bay	Togiak	0.0	0.0	0.0	0.92	0.1	0.1	0.0	0.2	0.87	0.4	0.0	0.0	0.0	0.91	0.1
	Igushik	1.2	0.0	5.1	0.22	1.8	0.4	0.0	3.7	0.82	1.5	13.9	7.5	20.5	0.00	4.0
	Wood	69.8	64.0	75.5	0.00	3.5	84.8	78.4	90.2	0.00	3.6	63.2	56.1	70.1	0.00	4.3
	Nushagak	28.8	23.5	34.1	0.00	3.2	14.0	9.0	19.9	0.00	3.3	20.7	15.3	26.4	0.00	3.4
	Kvichak	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1	0.5	0.0	1.8	0.00	0.6
	Alagnak	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.91	0.1
	Naknek	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.91	0.1
	Egegik	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1	0.4	0.0	2.1	0.64	0.8
	Ugashik	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1	1.0	0.0	2.9	0.36	1.1
North Peninsula	Cinder	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.1
	Meshik	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.1
	Ilnik	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.1
	Sandy	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0
	Bear	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.1
	Nelson	0.0	0.0	0.0	0.92	0.0	0.1	0.0	0.3	0.85	0.2	0.0	0.0	0.1	0.88	0.1
	NW Dist.-BH	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.0
South Peninsula		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.1	
Chignik	Black Lake	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0
	Chignik Lake	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.0
East of WASSIP		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.90	0.2	0.0	0.0	0.0	0.92	0.0	

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

Appendix G 25.–Nushagak District, Bristol Bay Area, Central Region, 2008, temporal strata 4–6. Reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 4 (7/7–7/9; H=1,366,658; n=396)					Stratum 5 (7/10–8/31; H=1,278,258; n=592)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%		
Norton Sound		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
Kuskokwim Bay	Kuskokwim R.	0.1	0.0	0.1	0.88	0.3	0.4	0.0	1.9	0.52	0.7
	Kanektok	0.0	0.0	0.0	0.92	0.0	0.6	0.0	1.7	0.24	0.6
	Goodnews	0.0	0.0	0.0	0.89	0.2	1.0	0.0	3.1	0.37	1.1
Bristol Bay	Togiak	0.0	0.0	0.0	0.92	0.1	1.8	0.4	3.1	0.02	0.8
	Igushik	0.9	0.0	4.7	0.23	1.7	21.6	16.1	27.3	0.00	3.4
	Wood	81.1	75.9	85.7	0.00	3.0	61.3	55.3	67.2	0.00	3.6
	Nushagak	17.8	13.6	22.3	0.00	2.6	13.2	10.0	16.6	0.00	2.0
	Kvichak	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.89	0.1
	Alagnak	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Naknek	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.0
	Egegik	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.0
	Ugashik	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
North Peninsula	Cinder	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Meshik	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Ilnik	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.0
	Sandy	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Bear	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Nelson	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.93	0.0
	NW Dist.-BH	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
South Peninsula		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
Chignik	Black Lake	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.93	0.0
	Chignik Lake	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
East of WASSIP		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.93	0.0

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.



Appendix G 26.–Togiak District, Bristol Bay Area, Central Region, 2006, temporal strata 1–2, and 5. Reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (6/19–7/2; H=46,650; n=149)					Stratum 2 (7/3–7/10; H=127,445; n=222)					Stratum 5 (7/22–8/9; H=184,237; n=260)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%			5%	95%			5%	95%				
Norton Sound		0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0
Kuskokwim Bay	Kuskokwim R.	0.0	0.0	0.0	0.91	0.1	0.9	0.0	4.6	0.65	1.6	0.1	0.0	0.5	0.79	0.2
	Kanektok	0.0	0.0	0.0	0.91	0.3	1.6	0.0	3.8	0.13	1.2	0.1	0.0	0.0	0.89	0.3
	Goodnews	40.0 <sup>a</sup>	27.3	53.7	0.00	8.0	49.4 <sup>a</sup>	26.9	67.2	0.00	12.5	9.3 <sup>a</sup>	0.0	22.2	0.03	7.4
Bristol Bay	Togiak	59.6	46.0	72.3	0.00	8.0	40.7	23.6	63.0	0.00	12.3	89.4	76.4	99.1	0.00	7.4
	Igushik	0.0	0.0	0.0	0.90	0.2	0.0	0.0	0.0	0.91	0.1	0.4	0.0	2.1	0.57	0.8
	Wood	0.0	0.0	0.0	0.91	0.1	5.6	3.0	8.7	0.00	1.8	0.3	0.0	1.1	0.40	0.4
	Nushagak	0.1	0.0	0.2	0.87	0.4	1.8	0.0	5.5	0.31	1.9	0.2	0.0	1.1	0.69	0.4
	Kvichak	0.0	0.0	0.1	0.88	0.2	0.0	0.0	0.0	0.91	0.1	0.1	0.0	0.5	0.82	0.2
	Alagnak	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.1
	Naknek	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.91	0.1	0.2	0.0	1.1	0.51	0.4
	Egegik	0.0	0.0	0.0	0.90	0.2	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.1
	Ugashik	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.0
North Peninsula	Cinder	0.1	0.0	0.5	0.83	0.3	0.0	0.0	0.0	0.89	0.2	0.0	0.0	0.0	0.92	0.1
	Meshik	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.1
	Ilnik	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.1
	Sandy	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.90	0.1
	Bear	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0
	Nelson	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	NW Dist.-BH	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.0
South Peninsula		0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.0
Chignik	Black Lake	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.91	0.1
	Chignik Lake	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.91	0.1
East of WASSIP		0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.0

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

<sup>a</sup> Baseline evaluation tests suggest misallocations among reporting groups with sea/river-type sockeye salmon. Biases toward lower-represented reporting groups are likely between Kuskokwim R., Kanektok, Goodnews, Togiak, and Nushagak reporting groups.

Appendix G 27.–Togiak District, Bristol Bay Area, Central Region, 2007, temporal strata 1–3. Reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (6/18–7/6; H=126,126; n=394)					Stratum 2 (7/7–7/10; H=73,697; n=398)					Stratum 3 (7/13–7/16; H=162,075; n=299)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%				5%	95%		
Norton Sound		0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.89	0.2
Kuskokwim Bay	Kuskokwim R.	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.1
	Kanektok	0.0	0.0	0.0	0.91	0.1	0.7	0.0	1.8	0.05	0.6	0.0	0.0	0.1	0.88	0.2
	Goodnews	62.0 <sup>a</sup>	51.6	72.1	0.00	6.7	39.3 <sup>a</sup>	26.4	55.6	0.00	8.7	15.4 <sup>a</sup>	8.3	23.1	0.00	4.5
Bristol Bay	Togiak	37.3	27.2	47.7	0.00	6.7	59.7	43.3	72.5	0.00	8.7	84.2	76.5	91.4	0.00	4.6
	Igushik	0.1	0.0	0.6	0.83	0.3	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.3	0.83	0.2
	Wood	0.0	0.0	0.2	0.82	0.1	0.0	0.0	0.1	0.69	0.1	0.1	0.0	0.3	0.81	0.2
	Nushagak	0.5	0.0	1.6	0.32	0.6	0.0	0.0	0.0	0.88	0.1	0.0	0.0	0.0	0.91	0.1
	Kvichak	0.0	0.0	0.0	0.92	0.0	0.3	0.0	0.8	0.00	0.3	0.0	0.0	0.0	0.92	0.0
	Alagnak	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Naknek	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.1
	Egegik	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.3	0.84	0.2	0.0	0.0	0.0	0.92	0.1
	Ugashik	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.1
North Peninsula	Cinder	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.90	0.1
	Meshik	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.91	0.1
	Ilnik	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1
	Sandy	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Bear	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Nelson	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	NW Dist.-BH	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.1	0.0	0.5	0.84	0.3
South Peninsula		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.1	0.0	0.7	0.78	0.3
Chignik	Black Lake	0.0	0.0	0.0	0.93	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Chignik Lake	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.90	0.1
East of WASSIP		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

<sup>a</sup> Baseline evaluation tests suggest misallocations among reporting groups with sea/river-type sockeye salmon. Biases toward lower-represented reporting groups are likely between Kuskokwim R., Kanektok, Goodnews, Togiak, and Nushagak reporting groups.

Appendix G 28.–Togiak District, Bristol Bay Area, Central Region, 2007, temporal strata 4–5. Reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 4 (7/17–7/21; H=144,030; n=392)					Stratum 5 (7/23–8/6; H=310,653; n=395)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%		
Norton Sound		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
Kuskokwim Bay	Kuskokwim R.	0.1	0.0	0.5	0.62	0.2	0.5	0.0	1.7	0.43	0.6
	Kanektok	0.1	0.0	0.1	0.88	0.3	0.0	0.0	0.0	0.90	0.2
	Goodnews	24.7 <sup>a</sup>	15.6	34.2	0.00	5.7	3.7 <sup>a</sup>	0.0	10.6	0.12	3.5
Bristol Bay	Togiak	74.9	65.3	83.9	0.00	5.7	95.7	88.7	100.0	0.00	3.6
	Igushik	0.0	0.0	0.2	0.86	0.2	0.0	0.0	0.0	0.92	0.0
	Wood	0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.92	0.0
	Nushagak	0.2	0.0	0.7	0.45	0.3	0.1	0.0	0.7	0.83	0.3
	Kvichak	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Alagnak	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Naknek	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Egegik	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Ugashik	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
North Peninsula	Cinder	0.0	0.0	0.3	0.84	0.2	0.0	0.0	0.0	0.92	0.0
	Meshik	0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.92	0.0
	Ilnik	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.0
	Sandy	0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.92	0.0
	Bear	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0
	Nelson	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	NW Dist.-BH	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
South Peninsula		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.92	0.0	
Chignik	Black Lake	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Chignik Lake	0.0	0.0	0.1	0.87	0.1	0.0	0.0	0.0	0.92	0.0
East of WASSIP		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.91	0.1	

*Note:* Stock composition estimates may not sum to 100% due to rounding error.

*Note:* H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

<sup>a</sup> Baseline evaluation tests suggest misallocations among reporting groups with sea/river-type sockeye salmon. Biases toward lower-represented reporting groups are likely between Kuskokwim R., Kanektok, Goodnews, Togiak, and Nushagak reporting groups.

Appendix G 29.–Togiak District, Bristol Bay Area, Central Region, 2008, temporal strata 1–3. Reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (6/18–7/5; H=64,331; n=395)					Stratum 2 (7/7–7/12; H=133,406; n=499)					Stratum 3 (7/13–7/19; H=194,162; n=390)						
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD		
Regional	Subregional		5%	95%			5%	95%			5%	95%			5%	95%		
Norton Sound		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.92	0.0
Kuskokwim Bay	Kuskokwim R.	0.3	0.0	0.9	0.00	0.3	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.91	0.1
	Kanektok	0.1	0.0	0.7	0.78	0.3	1.1	0.3	2.2	0.00	0.6	0.0	0.0	0.0	0.91	0.1	0.91	0.1
	Goodnews	58.4 <sup>a</sup>	48.7	66.6	0.00	5.4	31.2 <sup>a</sup>	14.2	65.3	0.00	17.6	17.8 <sup>a</sup>	10.9	27.2	0.00	5.0	0.00	5.0
Bristol Bay	Togiak	39.7	31.6	49.3	0.00	5.4	66.2	32.1	83.1	0.00	17.6	81.7	72.3	88.6	0.00	5.0	0.00	5.0
	Igushik	0.4	0.0	1.5	0.44	0.5	0.0	0.0	0.0	0.91	0.1	0.1	0.0	0.4	0.78	0.2	0.78	0.2
	Wood	0.0	0.0	0.2	0.84	0.2	1.3	0.3	2.5	0.00	0.7	0.4	0.0	1.2	0.18	0.4	0.18	0.4
	Nushagak	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.3	0.86	0.2	0.0	0.0	0.0	0.92	0.0	0.92	0.0
	Kvichak	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.92	0.0
	Alagnak	0.6	0.1	1.3	0.01	0.4	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.92	0.0
	Naknek	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.93	0.0	0.0	0.0	0.0	0.92	0.0	0.92	0.0
	Egegik	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.91	0.0	0.0	0.0	0.0	0.92	0.0	0.92	0.0
	Ugashik	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.1	0.87	0.1	0.0	0.0	0.0	0.92	0.0	0.92	0.0
North Peninsula	Cinder	0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.90	0.1	0.90	0.1
	Meshik	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.1	0.92	0.1
	Ilnik	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.92	0.0
	Sandy	0.1	0.0	0.5	0.72	0.2	0.1	0.0	0.7	0.72	0.3	0.0	0.0	0.0	0.92	0.0	0.92	0.0
	Bear	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.92	0.0
	Nelson	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.93	0.0	0.0	0.0	0.0	0.92	0.0	0.92	0.0
	NW Dist.-BH	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.89	0.1	0.0	0.0	0.0	0.92	0.0	0.92	0.0
South Peninsula		0.0	0.0	0.0	0.89	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.92	0.0
Chignik	Black Lake	0.4	0.0	1.1	0.28	0.4	0.0	0.0	0.0	0.93	0.0	0.0	0.0	0.0	0.92	0.0	0.92	0.0
	Chignik Lake	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.92	0.0
East of WASSIP		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.92	0.0	

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

<sup>a</sup> Baseline evaluation tests suggest misallocations among reporting groups with sea/river-type sockeye salmon. Biases toward lower-represented reporting groups are likely between Kuskokwim R., Kanektok, Goodnews, Togiak, and Nushagak reporting groups.

Appendix G 30.–Togiak District, Bristol Bay Area, Central Region, 2008, temporal strata 4–5. Reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 4 (7/20–7/24; H=150,072; n=391)					Stratum 5 (7/25–8/6; H=109,344; n=396)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%		
Norton Sound		0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.92	0.0
Kuskokwim Bay	Kuskokwim R.	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Kanektok	0.0	0.0	0.1	0.88	0.3	0.0	0.0	0.0	0.89	0.2
	Goodnews	27.6 <sup>a</sup>	17.5	39.0	0.00	6.6	4.9 <sup>a</sup>	0.0	15.9	0.15	5.0
Bristol Bay	Togiak	71.8	60.4	81.9	0.00	6.6	95.0	84.0	100.0	0.00	5.0
	Igushik	0.0	0.0	0.0	0.89	0.1	0.0	0.0	0.0	0.92	0.0
	Wood	0.5	0.0	1.3	0.03	0.4	0.0	0.0	0.0	0.92	0.0
	Nushagak	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0
	Kvichak	0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.93	0.0
	Alagnak	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0
	Naknek	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Egegik	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0
	Ugashik	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.1	0.87	0.1
North Peninsula	Cinder	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Meshik	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Ilnik	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.89	0.1
	Sandy	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Bear	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.90	0.1
	Nelson	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	NW Dist.-BH	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
South Peninsula		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
Chignik	Black Lake	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Chignik Lake	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
East of WASSIP		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

<sup>a</sup> Baseline evaluation tests suggest misallocations among reporting groups with sea/river-type sockeye salmon. Biases toward lower-represented reporting groups are likely between Kuskokwim R., Kanektok, Goodnews, Togiak, and Nushagak reporting groups.



**APPENDIX H: KUSKOKWIM AREA, ARCTIC-YUKON-  
KUSKOKWIM REGION, SUBREGIONAL STOCK  
COMPOSITION ESTIMATES**

Appendix H 1.–District 5 Commercial, Kuskokwim Area, Arctic-Yukon-Kuskokwim Region, 2006, temporal stratum 1. Reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (6/22–7/3; H=9,809; n=130)				
		90% CI			$P=0$	SD
Regional	Subregional	Mean	5%	95%		
Norton Sound		0.1	0.0	0.1	0.88	0.4
Kuskokwim Bay	Kuskokwim R.	4.8	0.9	11.3	0.00	3.3
	Kanektok	0.1	0.0	0.1	0.89	0.8
	Goodnews	91.5	82.9	98.1	0.00	4.7
Bristol Bay	Togiak	2.9 <sup>a</sup>	0.0	11.3	0.05	3.9
	Igushik	0.0	0.0	0.0	0.91	0.1
	Wood	0.0	0.0	0.0	0.89	0.1
	Nushagak	0.4	0.0	3.2	0.67	1.4
	Kvichak	0.0	0.0	0.0	0.91	0.1
	Alagnak	0.0	0.0	0.0	0.91	0.1
	Naknek	0.0	0.0	0.0	0.91	0.1
	Egegik	0.0	0.0	0.0	0.91	0.1
	Ugashik	0.0	0.0	0.0	0.91	0.1
North Peninsula	Cinder	0.0	0.0	0.0	0.91	0.1
	Meshik	0.0	0.0	0.0	0.91	0.1
	Ilnik	0.0	0.0	0.0	0.91	0.2
	Sandy	0.0	0.0	0.0	0.91	0.1
	Bear	0.0	0.0	0.0	0.91	0.1
	Nelson	0.0	0.0	0.0	0.91	0.1
	NW Dist.-BH	0.0	0.0	0.0	0.91	0.1
South Peninsula		0.0	0.0	0.0	0.91	0.1
Chignik	Black Lake	0.0	0.0	0.0	0.91	0.1
	Chignik Lake	0.0	0.0	0.0	0.91	0.1
East of WASSIP		0.0	0.0	0.0	0.90	0.2

*Note:* Stock composition estimates may not sum to 100% due to rounding error.

*Note:* H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

<sup>a</sup> Baseline evaluation tests suggest misallocations among reporting groups with sea/river-type sockeye salmon. Biases toward lower-represented reporting groups are likely between Kuskokwim R., Kanektok, Goodnews, Togiak, and Nushagak reporting groups.



Appendix H 2.–District 5 Commercial, Kuskokwim Area, Arctic-Yukon-Kuskokwim Region, 2007, temporal strata 1–3. Reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (6/19–7/4; H=13,762; n=168) <sup>a</sup>					Stratum 2 (7/6–7/16; H=16,557; n=376)					Stratum 3 (7/18–8/31; H=13,447; n=388)						
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD		
Regional	Subregional		5%	95%			5%	95%			5%	95%			5%	95%		
Norton Sound		0.0	0.0	0.0	0.91	0.1	0.3	0.0	0.8	0.00	0.3	0.4	0.0	1.9	0.53	0.7		
Kuskokwim Bay	Kuskokwim R.	0.4	0.0	2.9	0.59	1.0	0.0	0.0	0.0	0.91	0.2	0.0	0.0	0.0	0.91	0.2		
	Kanektok	0.1	0.0	0.4	0.85	0.4	5.8	3.5	8.6	0.00	1.6	5.0	3.1	7.4	0.00	1.4		
	Goodnews	85.9	78.1	91.8	0.00	4.2	55.0	47.3	62.5	0.00	4.6	33.5	27.2	40.0	0.00	3.9		
Bristol Bay	Togiak	10.7 <sup>b</sup>	5.5	18.3	0.00	4.0	28.0 <sup>b</sup>	21.2	35.3	0.00	4.3	51.4 <sup>b</sup>	45.2	57.5	0.00	3.7		
	Igushik	0.1	0.0	0.1	0.87	0.3	2.2 <sup>a</sup>	0.0	5.0	0.20	1.7	0.1	0.0	0.5	0.79	0.4		
	Wood	0.1	0.0	1.1	0.79	0.5	1.5	0.0	5.0	0.44	1.8	3.5	1.7	5.6	0.00	1.2		
	Nushagak	2.5 <sup>b</sup>	0.0	5.6	0.16	1.8	5.4 <sup>b</sup>	3.1	8.1	0.00	1.5	4.9 <sup>b</sup>	2.6	7.6	0.00	1.6		
	Kvichak	0.0	0.0	0.0	0.91	0.1	0.1	0.0	0.5	0.78	0.2	0.4	0.0	1.4	0.33	0.5		
	Alagnak	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.89	0.1		
	Naknek	0.0	0.0	0.0	0.92	0.1	1.6	0.5	3.1	0.00	0.8	0.0	0.0	0.0	0.88	0.1		
	Egegik	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.91	0.1	0.6	0.0	1.5	0.07	0.5		
	Ugashik	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1		
North Peninsula	Cinder	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.91	0.1	0.1	0.0	0.6	0.79	0.2		
	Meshik	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.91	0.1	0.1	0.0	0.3	0.82	0.2		
	Ilnik	0.0	0.0	0.0	0.92	0.1	0.1	0.0	0.3	0.85	0.2	0.0	0.0	0.2	0.86	0.2		
	Sandy	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.1		
	Bear	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.1		
	Nelson	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0		
	NW Dist.-BH	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0		
South Peninsula		0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0		
Chignik	Black Lake	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.0		
	Chignik Lake	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0		
East of WASSIP		0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0		

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

<sup>a</sup> Estimates for this stratum failed to converge following reanalysis with 80,000-iteration chains and are based upon three of five chains based upon HWLER results. See text for details.

<sup>b</sup> Baseline evaluation tests suggest misallocations among reporting groups with sea/river-type sockeye salmon. Biases toward lower-represented reporting groups are likely between Kuskokwim R., Kanektok, Goodnews, Togiak, and Nushagak reporting groups.

Appendix H 3.–District 4 Commercial, Kuskokwim Area, Arctic-Yukon-Kuskokwim Region, 2006, temporal strata 1–3. Reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (6/15–6/30; H=25,131; n=341)					Stratum 2 (7/3–7/10; H=47,245; n=376)					Stratum 3 (7/17–9/1; H=33,932; n=396)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%				5%	95%		
Norton Sound		0.0	0.0	0.0	0.92	0.0	0.1	0.0	0.2	0.88	0.4	0.0	0.0	0.0	0.92	0.0
Kuskokwim Bay	Kuskokwim R.	0.1	0.0	0.4	0.40	0.3	0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.92	0.1
	Kanektok	97.1	90.4	100.0	0.00	3.4	97.3	92.6	100.0	0.00	2.5	90.9	87.7	93.8	0.00	1.8
	Goodnews	2.7	0.0	9.2	0.24	3.3	1.4	0.0	6.3	0.59	2.3	0.1	0.0	0.9	0.81	0.5
Bristol Bay	Togiak	0.0	0.0	0.0	0.91	0.1	0.7	0.0	4.6	0.71	1.6	0.0	0.0	0.0	0.91	0.1
	Igushik	0.0	0.0	0.0	0.92	0.0	0.1	0.0	0.4	0.85	0.3	0.0	0.0	0.0	0.91	0.1
	Wood	0.0	0.0	0.0	0.92	0.1	0.3	0.0	1.2	0.32	0.4	1.8	0.6	3.4	0.00	0.9
	Nushagak	0.1	0.0	0.7	0.61	0.5	0.1	0.0	0.2	0.80	0.3	7.1 <sup>a</sup>	4.5	10.0	0.00	1.7
	Kvichak	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0
	Alagnak	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Naknek	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1
	Egegik	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
Ugashik	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	
North Peninsula	Cinder	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0
	Meshik	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0
	Ilnik	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Sandy	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Bear	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.92	0.0
	Nelson	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	NW Dist.-BH	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.91	0.1
South Peninsula		0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0
Chignik	Black Lake	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Chignik Lake	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
East of WASSIP		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

<sup>a</sup> Baseline evaluation tests suggest misallocations among reporting groups with sea/river-type sockeye salmon. Biases toward lower-represented reporting groups are likely between Kuskokwim R., Kanektok, Goodnews, Togiak, and Nushagak reporting groups.

Appendix H 4.–District 4 Commercial, Kuskokwim Area, Arctic-Yukon-Kuskokwim Region, 2007, temporal strata 1–3. Reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (6/14–7/2; H=16,671; n=377)					Stratum 2 (7/4–7/16; H=71,482; n=395)					Stratum 3 (7/18–8/31; H=21,364; n=389)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%				5%	95%		
Norton Sound		0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.1
Kuskokwim Bay	Kuskokwim R.	20.1	16.1	24.9	0.00	2.7	2.6	0.0	5.9	0.16	1.9	0.0	0.0	0.0	0.90	0.3
	Kanektok	77.9	72.6	82.6	0.00	3.1	92.1	87.7	96.0	0.00	2.5	92.3	89.3	94.9	0.00	1.7
	Goodnews	0.0	0.0	0.0	0.83	0.1	0.0	0.0	0.0	0.88	0.3	0.0	0.0	0.0	0.91	0.1
Bristol Bay	Togiak	0.0	0.0	0.0	0.92	0.1	1.5	0.0	4.7	0.46	1.7	0.0	0.0	0.0	0.90	0.2
	Igushik	0.0	0.0	0.2	0.87	0.2	0.0	0.0	0.1	0.88	0.1	0.1	0.0	1.2	0.82	0.5
	Wood	0.1	0.0	0.6	0.80	0.3	2.2	1.0	3.7	0.00	0.8	3.6	1.7	5.7	0.00	1.2
	Nushagak	1.2	0.0	5.4	0.51	1.9	1.5	0.0	5.0	0.47	1.9	3.8 <sup>a</sup>	1.8	6.3	0.00	1.4
	Kvichak	0.1	0.0	0.9	0.76	0.3	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Alagnak	0.0	0.0	0.1	0.88	0.2	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Naknek	0.1	0.0	0.6	0.56	0.2	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Egegik	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Ugashik	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
North Peninsula	Cinder	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.2	0.86	0.1
	Meshik	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.90	0.1
	Ilnik	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0	0.1	0.0	0.3	0.84	0.2
	Sandy	0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Bear	0.3	0.0	1.4	0.62	0.5	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Nelson	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	NW Dist.-BH	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.90	0.1
South Peninsula		0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
Chignik	Black Lake	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.90	0.1
	Chignik Lake	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.89	0.1
East of WASSIP		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.

<sup>a</sup> Baseline evaluation tests suggest misallocations among reporting groups with sea/river-type sockeye salmon. Biases toward lower-represented reporting groups are likely between Kuskokwim R., Kanektok, Goodnews, Togiak, and Nushagak reporting groups.

Appendix H 5.–District 4 Commercial, Kuskokwim Area, Arctic-Yukon-Kuskokwim Region, 2008, temporal strata 1–3. Reporting group-specific stock composition estimates (%) including mean, 90% credibility interval, the probability that the estimate is equal to zero ( $P=0$ ), and SD.

Reporting Group		Stratum 1 (6/14–7/8; H=23,301; n=393)					Stratum 2 (7/10–7/18; H=36,749; n=397)					Stratum 3 (7/21–8/29; H=9,693; n=395)				
		Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD	Mean	90% CI		$P=0$	SD
Regional	Subregional		5%	95%				5%	95%				5%	95%		
Norton Sound		0.0	0.0	0.0	0.92	0.0	0.2	0.0	1.1	0.73	0.4	0.2	0.0	1.4	0.70	0.5
Kuskokwim Bay	Kuskokwim R.	0.6	0.0	3.4	0.13	1.2	0.0	0.0	0.0	0.83	0.1	0.0	0.0	0.0	0.91	0.1
	Kanektok	99.0	95.9	100.0	0.00	1.5	97.9	96.1	99.3	0.00	1.0	90.4	87.4	93.1	0.00	1.8
	Goodnews	0.1	0.0	0.0	0.90	0.5	0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.91	0.1
Bristol Bay	Togiak	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.92	0.1
	Igushik	0.0	0.0	0.0	0.90	0.1	0.4	0.0	1.9	0.62	0.7	0.8	0.0	4.0	0.65	1.4
	Wood	0.0	0.0	0.0	0.89	0.1	1.3	0.0	2.9	0.07	0.9	8.1	4.8	11.2	0.00	1.9
	Nushagak	0.1	0.0	0.6	0.86	0.6	0.1	0.0	1.0	0.80	0.4	0.5	0.0	2.0	0.38	0.7
	Kvichak	0.0	0.0	0.1	0.88	0.2	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Alagnak	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Naknek	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Egegik	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Ugashik	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
North Peninsula	Cinder	0.0	0.0	0.0	0.91	0.1	0.0	0.0	0.1	0.87	0.1	0.0	0.0	0.1	0.87	0.1
	Meshik	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.90	0.1	0.0	0.0	0.0	0.89	0.1
	Ilnik	0.0	0.0	0.0	0.92	0.1	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Sandy	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Bear	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Nelson	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	NW Dist.-BH	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.91	0.1
South Peninsula		0.1	0.0	0.4	0.85	0.2	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
Chignik	Black Lake	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0
	Chignik Lake	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.93	0.0	0.0	0.0	0.0	0.92	0.0
East of WASSIP		0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0	0.0	0.0	0.0	0.92	0.0

Note: Stock composition estimates may not sum to 100% due to rounding error.

Note: H is the number of sockeye salmon reported to have been harvested and n is the final number of samples used in genetic analyses.