Addendum to FMS 16-10: Redefinition of Reporting Groups to Separate Cook Inlet into Four Groups for the Genetic Stock Composition of the Commercial Harvest of Sockeye Salmon in Kodiak Management Area, 2014–2016

by
Kyle R. Shedd
M. Birch Foster
and
Christopher Habicht
Symbols and Abbreviations

The following symbols and abbreviations, and others approved for the Système International d'Unités (SI), are used without definition in the following reports by the Divisions of Sport Fish and of Commercial Fisheries: Fishery Manuscripts, Fishery Data Series Reports, Fishery Management Reports, and Special Publications. All others, including deviations from definitions listed below, are noted in the text at first mention, as well as in the titles or footnotes of tables, and in figure or figure captions.

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<th>Mathematics, statistics</th>
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<td>centimeter cm</td>
<td>Alaska Administrative Code</td>
<td>alternate hypothesis $H_A$</td>
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<tr>
<td>decimeter dL</td>
<td>all commonly accepted abbreviations</td>
<td>base of natural logarithm $e$</td>
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<tr>
<td>gram g</td>
<td>e.g., Mr., Mrs., AM, PM, etc.</td>
<td>catch per unit effort CPUE</td>
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<td>hectare ha</td>
<td>all commonly accepted professional titles</td>
<td>coefficient of variation $CV$</td>
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<tr>
<td>kilogram kg</td>
<td>e.g., Dr., Ph.D., R.N., etc.</td>
<td>common test statistics $(F, t, X^2, \text{etc.})$</td>
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<tr>
<td>kilometer km</td>
<td>at</td>
<td>confidence interval $CI$</td>
</tr>
<tr>
<td>liter L</td>
<td>compass directions:</td>
<td>correlation coefficient $r$</td>
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<tr>
<td>meter m</td>
<td>east</td>
<td>(multiple) $R$</td>
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<tr>
<td>milliliter mL</td>
<td>north</td>
<td>correlation coefficient</td>
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<td>millimeter mm</td>
<td>south</td>
<td>(simple) $r$</td>
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<td>Weights and measures (English)</td>
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<tr>
<td>cubic feet per second ft³/s</td>
<td>west</td>
<td>degree (angular) $°$</td>
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<td>foot ft</td>
<td>Copyright $©$</td>
<td>degrees of freedom df</td>
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<tr>
<td>gallon gal</td>
<td>corporate suffixes:</td>
<td>expected value $E$</td>
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<td>inch in</td>
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<td>greater than $&gt;$</td>
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<td>mile mi</td>
<td>Co.</td>
<td>greater than or equal to $\geq$</td>
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<td>nautical mile nmi</td>
<td>Corporation</td>
<td>harvest per unit effort HPUE</td>
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<td>ounce oz</td>
<td>Incorporated</td>
<td>less than $&lt;$</td>
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<td>pound lb</td>
<td>Limited</td>
<td>less than or equal to $\leq$</td>
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<tr>
<td>quart qt</td>
<td>District of Columbia</td>
<td>logarithm (natural) $\ln$</td>
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<tr>
<td>yard yd</td>
<td>et al.</td>
<td>logarithm (base 10) $\log$</td>
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<td>Time and temperature</td>
<td>et cetera (and so forth)</td>
<td>logarithm (specify base) $\log$, etc.</td>
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<td>day d</td>
<td>exempli gratia</td>
<td>minute (angular) $\arcmin$</td>
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<td>degrees Celsius °C</td>
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<td>degrees Fahrenheit °F</td>
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<td>degrees kelvin K</td>
<td>i.e.</td>
<td>percent $%$</td>
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<td>hour h</td>
<td>lat or long</td>
<td>probability $P$</td>
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<td>minute min</td>
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<td>probability of a type I error</td>
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<td>second s</td>
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<td>(rejection of the null hypothesis when true) $\alpha$</td>
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<td>probability of a type II error</td>
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<td>(acceptance of the null hypothesis when false) $\beta$</td>
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<td>alternating current AC</td>
<td>registered trademark</td>
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<td>ampere A</td>
<td>trademark</td>
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<tr>
<td>calorie cal</td>
<td>United States</td>
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<tr>
<td>direct current DC</td>
<td>(adjective)</td>
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<tr>
<td>hertz Hz</td>
<td>United States of America (noun)</td>
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<td>horsepower hp</td>
<td>U.S.C.</td>
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<td>hydrogen ion activity (negative log of) pH</td>
<td>U.S. state</td>
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<tr>
<td>parts per million ppm</td>
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<td>parts per thousand ppt</td>
<td>use two-letter abbreviations (e.g., AK, WA)</td>
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<td>volts V</td>
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<td>watts W</td>
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by
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<td>A56.</td>
<td>Alitak, temporal stratum 1, 2016</td>
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<td>Alitak, temporal stratum 3, 2016</td>
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<td>A59.</td>
<td>Alitak, 2016, all strata</td>
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<td>A60.</td>
<td>Igvak, temporal stratum 2, 2015</td>
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<td>A61.</td>
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<td>A62.</td>
<td>Igvak, temporal stratum 1, 2016</td>
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<td>A65.</td>
<td>Kodiak Management Area, 2014, all strata</td>
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ABSTRACT

We conducted a study using mixed stock analysis (MSA) based on genetic data to estimate the stock compositions of sockeye salmon harvests in select Kodiak Management Area (KMA) commercial salmon fisheries from June through August from 2014 to 2016. This information was presented to the Alaska Board of Fisheries (BOF) in January 2017. This study showed that nonlocal harvest of Cook Inlet-origin sockeye salmon occurred in all 3 years, amounting to 8%, 37%, and 30% of the sampled KMA sockeye salmon harvest. The BOF asked the Alaska Department of Fish and Game to further separate Cook Inlet harvest into 4 subregional reporting groups: Kenai, Kasilof, Susitna, and Other Cook Inlet. This addendum to the original study describes additional genetic baseline testing done to verify the accuracy and precision of MSA performance for the 4 Cook Inlet subregional reporting groups and the stock-specific harvest results for the 34 of 47 spatiotemporal strata where Cook Inlet-origin fish contributed greater than 5% of the harvest. In each of the 3 years, the majority of the harvest of Cook Inlet sockeye salmon in the KMA came from the Kenai subregional reporting group. Annual stock compositions of the sampled KMA sockeye harvest ranged from 4.0–21.4% for Kenai, 1.7–6.1% for Kasilof, 0.3–4.4% for Susitna, and 0.8–4.7% for the Other Cook Inlet reporting group.

Key words Kodiak, KMA, Cook Inlet, sockeye salmon, *Oncorhynchus nerka*, mixed stock analysis, MSA, genetic baseline, SNP

INTRODUCTION

STUDY BACKGROUND

The Alaska Department of Fish and Game (ADF&G) used genetic mixed stock analysis (MSA) to estimate the stock composition and stock-specific harvest of commercial sockeye salmon (*Oncorhynchus nerka*) harvests in the Kodiak Management Area (KMA) from 2014 to 2016 (Shedd et al. 2016c). The experimental design for this study was described in 2 operational plans (Foster and Dann 2014, 2015). Briefly, samples were collected from 6 sampling areas for up to 3 temporal strata in each year, for a total of 47 total strata that were analyzed across the 3 years of study. For the 3 temporal strata, the early stratum coincides with the commercial fisheries targeting early-run sockeye salmon, the middle stratum coincides with the commercial fisheries targeting early-run sockeye and/or pink and chum salmon, and the late stratum coincides with the commercial fisheries targeting late-run sockeye and/or pink and chum salmon (Foster and Dann 2015). Samples from these strata were analyzed with a genetic baseline described in Shedd et al. (2016a) and a subsequent addendum (Shedd et al. 2016b). The final baseline contained 65,332 individuals from 762 collections representing 473 populations in 14 reporting groups: 1) West of Chignik, 2) Black Lake, 3) Chignik Lake, 4) Upper Station/Akalura, 5) Ayakulik/Frazer, 6) Karluk, 7) Uganik, 8) Northwest Kodiak, 9) Afognak, 10) Eastside Kodiak, 11) Saltery (includes Spiridon), 12) Cook Inlet, 13) Prince William Sound, and 14) South of Cape Suckling. To aid in the interpretation of results, stock composition estimates were reported with 2 hierarchical levels of reporting groups: regional and subregional. The 6 regional reporting groups were 1) West of Chignik, 2) Chignik, 3) Kodiak, 4) Cook Inlet, 5) Prince William Sound, and 6) South of Cape Suckling. The Chignik regional reporting group summarized the combined estimates from the Black Lake and Chignik Lake subregional reporting groups. The Kodiak regional reporting group summarized the combined estimates from the Upper Station/Akalura, Ayakulik/Frazer, Karluk, Uganik, Northwest Kodiak, Afognak, Eastside Kodiak, and Saltery subregional reporting groups.

ALASKA BOARD OF FISHERIES REQUEST

The results from the KMA sockeye salmon genetics study were presented to the Alaska Board of Fisheries (BOF) in January 2017 at the Kodiak BOF meeting, and again in February 2017 at the
Upper Cook Inlet BOF meeting. *Nonlocal* harvest of Cook Inlet sockeye salmon was present in KMA commercial salmon fisheries from 2014 to 2016, but varied in magnitude both spatially and temporally (Shedd et al. 2016c). Given the *nonlocal* harvest of Cook Inlet sockeye salmon, the BOF asked ADF&G to further separate genetic stock composition estimates of Cook Inlet harvest into 4 subregional reporting groups: Kenai, Kasilof, Susitna, and Other Cook Inlet (Barclay and Habicht 2012). The BOF asked ADF&G to use their professional judgement to determine how to conduct these analyses and what level of detail to provide. Estimates at the subregional reporting group level provide information on whether KMA commercial fisheries selectively harvested differential components of Cook Inlet sockeye salmon stocks among fishing strata.

**SEPARATING COOK INLET INTO FOUR SUBREGIONAL REPORTING GROUPS**

These *post hoc* genetic stock composition analyses were agreed to by ADF&G, provided that 5 criteria were met: 1) clear statement of objectives, 2) adequate representation in the genetic baseline, 3) acceptable accuracy and precision (±5% of true value 90% of the time) of reporting group identification, 4) reporting groups of interest present at 5% or more of the harvest, and 5) the value of the new information is worth the additional expense. 1 ADF&G determined that the criteria were met, so long as the reduced SNP marker set used in this study could adequately distinguish the Cook Inlet subregional reporting groups (Barclay and Habicht 2012 used 96 SNPs, whereas this study used a reduced set of 48 SNPs). ADF&G also determined that Cook Inlet subregional stock composition estimates would only be provided for spatiotemporal strata with Cook Inlet contributions of 5% or greater. This latter determination was based on the high relative uncertainty associated with low stock contribution estimates.

**MEDIANS**

Misallocation to reporting groups that are either absent or at low proportions within mixture samples occurs with MSA when the discriminant methods do not produce perfect identifiability (Pella and Milner 1987; Xu et al. 1994; Pella and Masuda 2001). Medians provide a less upwardly biased point estimate than means for distributions of stock composition with low stock proportions. For stock composition estimates of small contributors, the mean is biased high, whereas for large contributors, the median is biased low. Medians have been reported in previous ADF&G genetics studies (i.e., Habicht et al. 2012) and the initial study (Shedd et al. 2016c), and are reported in this addendum. Unlike means, medians summed across strata provide low estimates for the median of multiple combined strata. For example, summed medians for sockeye fisheries along the Alaska Peninsula and Bristol Bay were downwardly biased by 0–3% when calculating the total for fishery mixtures (Habicht et al. 2012). Therefore, accurate (unbiased) medians for grouped strata must be estimated each time strata are combined.

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OBJECTIVES

This document describes the reanalysis of data from the original study (Shedd et al. 2016c) and has 3 objectives:

1. Determine if the genetic baseline for this study based on 48 SNPs can precisely and accurately separate Cook Inlet-origin fish into 4 subregional reporting groups: Kenai, Kasilof, Susitna, and Other Cook Inlet.
2. Report MSA results of stock compositions and stock-specific harvests of sockeye salmon sampled from select commercial salmon fisheries in the KMA from 2014 to 2016 for the 4 Cook Inlet subregional reporting groups in spatiotemporal strata where Cook Inlet-origin fish were greater than 5% of the harvest.
3. Characterize when and where Cook Inlet-origin sockeye salmon stocks were harvested from select commercial fisheries in the KMA, 2014–2016.

METHODS

STATISTICAL ANALYSIS

Separation of Cook Inlet into Four Subregional Reporting Groups

Cook Inlet populations in the genetic baseline for this study (Shedd et al. 2016a; Shedd et al. 2016b) were divided into 4 subregional reporting groups: Kenai, Kasilof, Susitna, and Other Cook Inlet according to Barclay and Habicht (2012).

Baseline Evaluation for MSA

Self-assignment Likelihood Profiles

Using the 48 SNPs (46 loci) screened for the mixture samples, we computed a likelihood profile of the baseline, or the self-assignment probability for each individual within populations within reporting groups, for the 4 Cook Inlet subregional reporting groups. We calculated the likelihood of each individual’s genotype originating from all baseline populations based on leave-one-out population allele frequencies (Anderson et al. 2008). These genotype likelihoods were then rolled up to the population and reporting group levels to determine the overall probability of individuals from a group being assigned back to that group at these 2 different hierarchical levels. We visualized these probabilities as a matrix to better understand self-assignment of individuals back to their respective reporting groups and gain insight into potential misallocation between reporting groups in fishery mixtures.

100% Proof Tests

In order to assess the identifiability of the 4 Cook Inlet subregional reporting groups using the 48 SNPs (46 loci) screened in the mixture samples, we used 100% proof tests, in which we sampled half of the individuals in a reporting group (up to 200 individuals) without replacement and analyzed them as a mixture against the reduced baseline. These tests provided an indication of the power of the baseline for MSA under the assumption that all the populations from a reporting group were represented in the baseline. This process was repeated 4 more times to produce 5 replicates for each reporting group, to better understand the precision and accuracy of assignments given different mixture draws. The ADF&G Gene Conservation Lab uses the common guideline that correct allocation for these single-reporting group tests should exceed 90% to be considered adequate, as is generally accepted (Seeb et al. 2000).
Estimating Stock Compositions and Stock-Specific Harvests

Previous stock composition results estimated using the Bayesian Pella-Masuda Model as implemented in the program BAYES (Pella and Masuda 2001) and reported in Shedd et al. (2016c) were resummarized to provide estimates for the 4 Cook Inlet subregional reporting groups. Briefly, .RGN output files from all BAYES chains, each containing Markov Chain Monte Carlo (MCMC) samples of stock-group (population) proportions, were imported into R version 3.4.0 and stock compositions were summed up over all populations in each of the 4 Cook Inlet subregional reporting groups. We combined the second halves of MCMC chains from each mixture to form the posterior distribution and tabulated median and 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 calculated stock-specific harvests in the manner described by Dann et al. (2009) and used in Shedd et al. (2016c). In tables and text, we report Cook Inlet subregional reporting group estimates only for spatiotemporal strata where Cook Inlet reporting group exceeded 5% of the harvest. We also report these subregional reporting group estimates for combined spatiotemporal strata where at least one of the contributing strata exceeded 5% for the Cook Inlet reporting group. We report both medians and means for stock composition and stock-specific harvest for all strata in the appendices, but report only medians in the tables and text.

RESULTS

STATISTICAL ANALYSIS

Baseline Evaluation for Mixed Stock Analysis

Self-assignment Likelihood Profiles

A matrix of the overall self-assignment probability of individuals to a reporting group (likelihood profile) indicates that the 4 Cook Inlet subregional reporting groups are identifiable with minimal evidence of directional biases (Figure 1). Overall self-assignment probabilities of individuals back to their group averaged 0.75, and ranged from 0.69 to 0.83 for the 4 Cook Inlet subregional reporting groups.

100% Proof Tests

Correct allocations for 100% proof tests averaged 98.8%, and medians ranged from 97.3% to 99.6% for the 4 Cook Inlet subregional reporting groups (Figure 2). Within these groups, correct allocations averaged 99.2% (Kenai), 99.5% (Kasilof), 98.5% (Susitna), and 98.1% (Other Cook Inlet).

Stock Compositions and Stock-Specific Harvests

Stock compositions and stock-specific sockeye salmon harvests were resummarized for the 4 Cook Inlet subregional reporting groups and are reported for 34 of the 47 spatiotemporal strata that had at least 5% harvest of Cook Inlet-origin fish. Results are first presented by sampling area (Figure 3) and then by reporting group, primarily focusing on the new data for the 4 Cook Inlet

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subregional groups (see the original study, Shedd et al. 2016c, for a more comprehensive summary of all reporting groups).

Estimates by Sampling Area

Uganik-Kupreanof (253-11, 12, 13, 14, 31, 32, 33, 34, 35)

Early stratum harvests of Cook Inlet-origin fish were typically smaller than middle and late strata harvests (Tables 1–9; Figure 4; Appendix A1–12). In 2014, harvest of Cook Inlet-origin fish never exceeded 5% in any of the 3 temporal strata (Appendix A1–4) and therefore no estimates are provided for Cook Inlet subregional reporting groups.

For the early stratum of 2015, the overall Cook Inlet regional reporting group harvest was 8.2%; no subregional reporting group exceeded 5% (Appendix A5). For the middle stratum, the overall Cook Inlet harvest increased to 17.5%; only the Kenai (7.2%) and Susitna (5.5%) subregional reporting groups exceeded 5% (Appendix A6). For the late stratum, the overall Cook Inlet harvest increased to 31.2%; only the Kenai subregional reporting group exceeded 5% (24.2%; Appendix A7). Overall, for 2015, stock-specific harvest of Cook Inlet-origin fish in the Uganik-Kupreanof sampling area was estimated at 85,382 fish; only the Kenai subregional reporting group exceeded 5% (13.0%; 50,771 fish; Appendix A8; Figure 4).

In 2016, the early stratum harvests of Cook Inlet-origin fish remained smaller than in the middle and late stratum (7.3%); no subregional reporting group exceeded 5% (Appendix A9). Similar to 2015, Cook Inlet-origin fish increased in the middle stratum to 26.1% of the harvest, and included Kenai (13.2%), Susitna (5.6%), and Other Cook Inlet (5.4%) subregional reporting groups (Appendix A10). Stock proportions remained steady in the late stratum with 24.3% Cook Inlet-origin fish; only the Kenai subregional reporting group exceeded 5% (17.4%; Appendix A11). The total stock-specific harvest of Cook Inlet-origin fish in the Uganik-Kupreanof sampling area in 2016 was estimated at 74,674 fish; only the Kenai subregional reporting group exceeded 5% (12.6%; 43,085 fish; Appendix A12; Figure 4).

Uyak (254-10, 20, 21, 30, 31, 40, 41)

The stock composition in the Uyak sampling area was similar to the Uganik-Kupreanof sampling area—a lower Cook Inlet harvest in 2014 and in the early temporal strata of 2015 and 2016, and a higher harvest in the middle and late temporal strata of 2015 and 2016 (Tables 1–9; Figure 5; Appendix A13–24).

In 2014, Cook Inlet-origin fish only exceeded 5% of the harvest during the middle temporal stratum when they contributed 5.5%; no subregional reporting group exceeded 5% (Appendix A13–16).

Between 2014 and 2015, overall Cook Inlet harvest in the early stratum increased to 17.2%; only the Other Cook Inlet subregional reporting group exceeded 5% (11.1%; Appendix A17). Cook Inlet harvest became the majority in the middle temporal stratum at 54.0%, and included Kenai (32.4%), Susitna (9.3%), and Other Cook Inlet (7.4%) subregional reporting groups (Appendix A18). Late stratum Cook Inlet harvests decreased to 31.7%; only the Kenai (23.4%) and Susitna (7.1%) subregional reporting groups exceeded 5% (Appendix A19). The total stock-specific harvest of Cook Inlet-origin fish in the Uyak sampling area in 2015 was estimated at 142,488
fish, subregional reporting group estimates included 87,224 Kenai fish, 25,211 Susitna fish, and 19,966 Other Cook Inlet fish (Appendix A20; Figure 5).

In 2016, Cook Inlet harvest decreased relative to 2015, contributing 8.9% to the early stratum; only the Other Cook Inlet subregional reporting group exceeded 5% (6.7%; Appendix A21). Cook Inlet harvest again increased in the middle stratum—to 16.2%; only the Kenai subregional reporting group exceeded 5% (9.3%; Appendix A22). Late stratum harvest contained 9.3% Cook Inlet-origin fish; only the Kenai subregional reporting group exceeded 5% (7.0%; Appendix A23). The total stock-specific harvest of Cook Inlet-origin fish in the Uyak sampling area in 2016 was 26,509 fish; only the Kenai subregional reporting group exceeded 5% (6.6%; 15,439 fish; Appendix A24; Figure 5).

**Karluk-Sturgeon (255-10, 20; 256-40)**

Harvest of Cook Inlet-origin fish in the Karluk-Sturgeon sampling area was typically lower than in adjacent areas, but always peaked in the middle temporal stratum (Tables 1–9; Figure 6; Appendix A25–36).

During 2014, harvest of Cook Inlet-origin fish never exceeded 5% in any of the 3 temporal strata (Appendix A25–28); therefore, no estimates are provided for Cook Inlet subregional reporting groups.

In 2015, the early temporal stratum contained less than 5% Cook Inlet-origin fish, and thus no estimates are provided for subregional reporting groups (Appendix A29). The middle stratum consisted of 29.1% Cook Inlet-origin fish, and included Kenai (12.5%), Other Cook Inlet (6.1%), and Susitna (5.7%) subregional reporting groups. The remainder was from the Kasilof subregional reporting group (Appendix A30). Harvest of Cook Inlet-origin fish decreased in the late stratum to 9.0%; only the Kenai subregional reporting group exceeded 5% (6.4%; Appendix A31). The total stock-specific harvest of Cook Inlet-origin fish in the Karluk-Sturgeon sampling area in 2015 was 14,608 fish; only the Kenai subregional reporting group exceeded 5% (6.1%; 7,851 fish; Appendix A32; Figure 6).

In 2016, overall Cook Inlet harvest only exceeded 5% during the middle temporal stratum when it was 10.8%; no Cook Inlet subregional reporting groups exceeded 5% (Appendix A33-35; Figure 6). The total stock-specific harvest of Cook Inlet-origin fish in the Karluk-Sturgeon sampling area in 2016 was 2,645 fish; no Cook Inlet subregional reporting groups exceeded 5% (Appendix A36; Figure 6).

**Ayakulik-Halibut Bay (256-10, 15, 20, 25, 30)**

Similar to other sampling areas, Cook Inlet harvests were lower in 2014 than in 2015 and 2016, and tended to peak during the middle temporal stratum of each year (Tables 1–9; Figure 7; Appendix A37–48).

The early stratum of 2014 consisted of 7.1% Cook Inlet-origin fish; only the Kasilof subregional reporting group exceeded 5% (5.0%; Appendix A37). The proportion of Cook Inlet-origin fish increased to 23.6% in the middle stratum; only the Kenai subregional reporting group exceeded 5% (16.8%; Appendix A38). In the late stratum, harvest of Cook Inlet-origin fish decreased to 5.2%; no subregional reporting group exceeded 5% (Appendix A39). The total stock-specific harvest of Cook Inlet-origin fish in the Ayakulik-Halibut Bay sampling area in 2014 was 56,044 fish; only the Kenai subregional reporting group exceeded 5% (8.5%; 33,461 fish; Appendix A40; Figure 7).
In 2015, harvest of Cook Inlet-origin fish increased from 7.1% (2014) to 28.2% in the early stratum; only the Kasilof subregional reporting group exceeded 5% (19.0%; Appendix A41). In the middle stratum, Cook Inlet harvest peaked for the year at 48.2%, and included Kenai (27.0%), Kasilof (9.8%), and Other Cook Inlet (7.4%) subregional reporting groups (Appendix A42). The proportion of Cook Inlet-origin fish decreased to 8.3% in the late stratum; only the Kenai subregional reporting group exceeded 5% (7.5%; Appendix A43). The total stock-specific harvest of Cook Inlet-origin fish in the Ayakulik-Halibut Bay sampling area in 2015 was 224,759 fish; the Kenai (115,289 fish), Kasilof (76,450 fish), and Other Cook Inlet (37,114 fish) subregional reporting groups all exceeded 5%; (Appendix A44; Figure 7).

In 2016, the early temporal stratum was solely represented by samples from the ADF&G test fishery operating in front of the Ayakulik River mouth; the commercial fishery was not open (Appendix A45). In the middle stratum, similar to 2015, 42.2% of the harvest was Cook Inlet-origin fish; only the Kenai (30.5%) and Susitna (5.9%) subregional reporting groups exceeded 5% (Appendix A46). Cook Inlet harvest decreased to 28.5% in the late stratum; only the Kenai subregional reporting group exceeded 5% (20.5%; Appendix A47). The total stock-specific harvest of Cook Inlet-origin fish in the Ayakulik-Halibut Bay sampling area in 2016 was 54,597 fish; only the Kenai subregional reporting group exceeded 5% (27.6%; 43,577 fish; Appendix A48; Figure 7).

**Alitak (257-10, 20, 50, 60, 70)**

The overall Cook Inlet reporting group contributed a higher proportion of the harvest compared to other sampling areas, especially in the middle temporal stratum (Tables 1–9; Figure 8; Appendix A49–59).

The early stratum was not sampled in 2014, as there was no harvest. During the middle stratum, 32.3% of the harvest was attributed to Cook Inlet-origin fish; only the Kenai (16.1%) and Kasilof (11.1%) subregional reporting groups exceeded 5% (Appendix A49). Late stratum harvest had only 5.2% Cook Inlet-origin fish; no subregional reporting group exceeded 5% (Appendix A50). The total stock-specific harvest of Cook Inlet-origin fish in the Alitak sampling area in 2014 was 37,751 fish; only the Kenai (18,912 fish) and Kasilof (12,933 fish) subregional reporting groups exceeded 5% (Appendix A51; Figure 8).

In 2015, Cook Inlet-origin fish contributed 26.8% of the early stratum harvest; only the Kasilof (16.7%) and Other Cook Inlet (6.9%) subregional reporting groups exceeded 5% (Appendix A52). During the middle temporal stratum, Cook Inlet-origin fish were the majority of the harvest (77.0%); only the Kenai (60.8%) and Susitna (8.9%) subregional reporting groups exceeded 5% (Appendix A53). Harvest of Cook Inlet-origin fish dropped to below 5% in the late stratum (Appendix A54). The total stock-specific harvest of Cook Inlet-origin fish in the Alitak sampling area in 2015 was 136,314 fish; only the Kenai (102,338 fish) and Susitna (14,928 fish) subregional reporting groups exceeded 5% (Appendix A55; Figure 8).

In 2016, stock compositions of Cook Inlet-origin fish were similar to 2015. Cook Inlet-origin fish contributed 23.3% to the early stratum harvest; the Other Cook Inlet (10.3%), Kenai (6.9%), and Kasilof (5.6%) subregional reporting groups all exceeded 5% (Appendix A56). During the middle temporal stratum, Cook Inlet-origin fish made up the majority of the harvest (66.4%); only the Kenai (55.0%) and Susitna (5.5%) subregional groups exceeded 5% (Appendix A57). Late stratum harvest had 7.1% Cook Inlet-origin fish; only the Kenai subregional reporting group exceeded 5% (5.5%; Appendix A58). The total stock-specific harvest of Cook Inlet-origin fish in
the Alitak sampling area in 2016 was 45,279 fish; only the Kenai subregional reporting group exceeded 5% (38.2%; 36,045 fish; Appendix A59; Figure 8).

**Igvak (262-75, 80, 90, 95)**

Igvak sampling area was not sampled in either strata of 2014 or the early temporal stratum of 2015 due to fishery closures. When sampling did occur in the Igvak sampling area, harvest was primarily attributed to the Cook Inlet group, the Black Lake group, and the Chignik Lake group (Tables 5, 7, and 8; Figure 9; Appendix A60–64).

Although samples were taken from the middle stratum of 2015, harvest was low relative to historical averages and contained 54.0% Cook Inlet-origin fish; the Kenai (23.7%), Other Cook Inlet (19.2%), and Kasilof (7.4%) subregional reporting groups all exceeded 5% (Appendix A60). The total stock-specific harvest of Cook Inlet-origin fish in the Igvak sampling area in 2015 was 3,560 fish; the Kenai (1,560 fish), Other Cook Inlet (1,268 fish), and Kasilof (489 fish) subregional reporting groups all exceeded 5% (Appendix A61; Figure 9).

In 2016, stock compositions of Cook Inlet-origin fish were lowest in the early temporal stratum at 6.0%; no Cook Inlet subregional reporting groups exceeded 5% (Appendix A62). However, harvest during the middle temporal stratum consisted almost exclusively of Cook Inlet-origin fish (93.2%); the Kenai (74.2%), Other Cook Inlet (11.7%), and Susitna (5.2%) subregional reporting groups all exceeded 5% (Appendix A63). The total stock-specific harvest of Cook Inlet-origin fish in the Igvak sampling area in 2016 was 174,456; only the Kenai (132,088 fish) and Other Cook Inlet (22,950 fish) subregional reporting groups exceeded 5% (Appendix A64; Figure 9).

**Estimates for KMA**

In 2014, the total KMA harvest in sampled fisheries was 1,523,042 sockeye salmon, representing 46.7% of the total KMA sockeye salmon harvest for 2014 (Anderson et al. 2017). Of this sampled sockeye salmon harvest, 7.5% was attributed to the Cook Inlet reporting group; no Cook Inlet subregional reporting groups exceeded 5% (Appendix A65; Figure 10). Cook Inlet-origin harvest was 113,972 fish (Appendix A65; Figures 10 and 11).

In 2015, the total KMA harvest in fisheries that were sampled was 1,709,784 sockeye salmon, representing 55.2% of the total KMA sockeye salmon harvest for 2015 (Anderson et al. 2016a). Of this sampled sockeye salmon harvest, 36.6% was attributed to the Cook Inlet reporting group (Appendix A66; Figure 10). The only Cook Inlet subregional reporting groups exceeding 5% were Kenai (21.4%) and Kasilof (6.1%). Cook Inlet-origin harvest was 626,472 fish; only the Kenai (365,335 fish) and Kasilof (103,539 fish) subregional reporting groups exceeded 5% (Appendix A66; Figures 10 and 11).

In 2016, the total KMA harvest in fisheries that were sampled was 1,296,193 sockeye salmon, representing 62.4% of the total KMA sockeye salmon harvest for 2016 (Anderson et al. 2016b). Of this sampled sockeye salmon harvest, 29.6% was attributed to the Cook Inlet reporting group (Appendix A67; Figure 10). The only Cook Inlet subregional reporting group exceeding 5% was Kenai (21.0%). Cook Inlet-origin harvest was 384,089 fish; only the Kenai subregional reporting group exceeded 5% (272,160 fish; Appendix A67; Figures 10 and 11).
Estimates by Reporting Group

Kenai

Kenai fish constituted greater than 5% of a mixture in 22 of the 47 strata analyzed. Harvest of Kenai fish in KMA was variable across years, but primarily occurred during the middle temporal strata in the southwest sampling areas and the late temporal strata in the northwest sampling areas (Tables 1–9; Figures 12–23). In 2014, 80% of the harvest of Kenai fish within sampled areas of KMA occurred during the middle temporal stratum within the Ayakulik-Halibut Bay and Alitak areas (Tables 1–3; Figures 12–15). In 2015, when overall Kenai harvest was highest, 56% of the harvest occurred during the middle temporal stratum within the Ayakulik-Halibut Bay and Alitak areas, and 37% occurred in the middle and late strata within the Uyak and Uganik-Kupreanof areas (Tables 4–6; Figures 16–19). In 2016, 48% of the Kenai harvest occurred during the middle temporal stratum in Igvak, and the remainder was spread out among Ayakulik-Halibut Bay and Alitak in the middle stratum and Uganik-Kupreanof and Uyak in the middle and late strata (Tables 7–9; Figures 20–23). Kenai fish never exceeded 2% of the annual sockeye salmon harvest in the Karluk-Sturgeon sampling area in any of the 3 years. Overall, Kenai fish contributions to the sampled annual KMA harvest were lower in 2014 than in 2015 and 2016, amounting to 4.0% (60,973 fish), 21.4% (365,335 fish), and 21.0% (272,160 fish) of the KMA commercial sockeye salmon harvest from sampling areas and temporal periods analyzed in this study, 2014–2016 (Table 10; Figures 10 and 11).

Kasilof

Kasilof fish constituted greater than 5% of a mixture in 7 of the 47 strata analyzed. Harvest of Kasilof fish in KMA was variable across years, but primarily occurred during the early and middle temporal strata in the southwest sampling areas (Tables 1–9; Figures 12–23). In 2014, 80% of the harvest of Kasilof fish within sampled areas of KMA occurred during the early and middle temporal stratum within the Ayakulik-Halibut Bay and Alitak areas (Tables 1–3; Figures 12–15). In 2015, when overall Kasilof harvest was highest, 75% of the harvest occurred during the early and middle temporal strata within the Ayakulik-Halibut Bay sampling area (Tables 4–6; Figures 16–19). In 2016, when the overall harvest of Kasilof fish was lowest, 45% of the Kasilof harvest occurred during the early and middle temporal strata in Igvak and the remainder spread out among Ayakulik-Halibut Bay, Uganik-Kupreanof, Alitak, and Uyak sampling areas in the middle stratum (Tables 7–9; Figures 20–23). Kasilof fish never exceeded 8% of the annual sockeye salmon harvest in the Karluk-Sturgeon sampling area in any of the 3 years. Overall, Kasilof fish contributions to the sampled annual KMA harvest were relatively low but variable across sampling years, amounting to 2.4% (36,019 fish), 6.1% (103,539 fish), and 1.7% (22,501 fish) of the KMA commercial sockeye salmon harvest from sampling areas and temporal periods analyzed in this study, 2014–2016 (Table 10; Figures 10 and 11).

Susitna

Susitna fish constituted greater than 5% of a mixture in 9 of the 47 strata analyzed. Harvest of Susitna fish in KMA was variable across years, but primarily occurred during the middle temporal stratum at relatively consistent levels across all Westside sampling areas (Tables 1–9; Figures 12–23). In 2014, Susitna fish were only detected in the harvest the middle temporal stratum (Tables 1–3; Figures 12–15). In 2015, when overall Susitna harvest was highest, 79% of the harvest occurred during the middle temporal stratum, primarily in the Uyak, Alitak, Ayakulik-Halibut Bay and Uganik-Kupreanof sampling areas; the remainder of the harvest
occurred in the northwest sampling areas in the late stratum (Tables 4–6; Figures 16–19). In 2016, harvest patterns were consistent with 2015; 79% of the harvest occurred during the middle temporal stratum, primarily in the Igvak, Uganik-Kupreanof, Ayakulik-Halibut Bay, Alitak, and Uyk sampling areas, and the remainder of the harvest occurred in the northwest sampling areas in the late stratum (Tables 7–9; Figures 20–23). Susitna fish never exceeded 4% of the annual sockeye salmon harvest in the Karluk-Sturgeon sampling area in any of the 3 years. Overall, Susitna fish contributions to the sampled annual KMA harvest were lower than other Cook Inlet stocks, but variable across sampling years amounting to 0.3% (4,466 fish), 4.4% (75,989 fish), and 3.0% (39,440 fish) of the KMA commercial sockeye salmon harvest from sampling areas and temporal periods analyzed in this study, 2014–2016 (Table 10; Figures 10 and 11).

Other Cook Inlet

Other Cook Inlet fish constituted greater than 5% of a mixture in 10 of the 47 strata analyzed. Harvest of Other Cook Inlet fish in KMA was variable across years but primarily occurred during the middle temporal stratum; more harvest occurred in southern areas in the early strata and in northern areas in the late strata (Tables 1–9; Figures 12–23). In 2014, overall Other Cook Inlet harvest was low; 71% occurred in the Alitak and Ayakulik-Halibut Bay sampling areas during the middle temporal stratum (Tables 1–3; Figures 12–15). In 2015, when overall Other Cook Inlet harvest was highest, 70% of the harvest occurred in the Ayakulik-Halibut Bay and Uyk sampling areas during the early and middle temporal strata (Tables 4–6; Figures 16–19). In 2016 72% of the harvest occurred during the middle temporal stratum, primarily in Igvak (Tables 7–9; Figures 20–23). Other Cook Inlet fish never exceeded 5% of the annual sockeye salmon harvest in the Karluk-Sturgeon sampling area in any of the 3 years. Overall, Other Cook Inlet fish contributions to the sampled annual KMA harvest varied across sampling years amounting to 0.8% (11,908 fish), 4.7% (80,698 fish), and 3.7% (49,536 fish) of the KMA commercial sockeye salmon harvest from sampling areas and temporal periods analyzed in this study, 2014–2016 (Table 10; Figures 10 and 11).

When and Where Were Cook Inlet Fish Caught in KMA?

Overall, the harvest of Cook Inlet stocks was variable among years, peaking at 36.6% of the sampled KMA sockeye salmon harvest in 2015 (626,473 fish; Table 10; Appendix A66); however, some consistent spatial and temporal patterns emerged (Tables 1–9; Figures 24–25). Cook Inlet-origin fish were present in the harvest at relatively low proportions during the early temporal stratum in each year, but often higher in the southwest sampling areas, Alitak and Ayakulik-Halibut Bay (Figure 24). Cook Inlet-origin fish stock compositions peaked during the middle temporal stratum in each year; peak harvests occurred in the Ayakulik-Halibut Bay, Igvak, and Alitak sampling areas (Figures 24–25). Harvest of Cook Inlet-origin fish in the late temporal stratum was largely confined to the northwest sampling areas, Uganik-Kupreanof and Uyk (Figures 24–25).

DISCUSSION

SAMPLING LIMITATIONS

The impetus for the original study (Shedd et al. 2016c) was to provide analytically sound estimates of sockeye salmon stocks harvested in KMA commercial salmon fisheries to better understand stock productivity and address management assumptions. The principal objective of the original study (Shedd et al. 2016c) was to sample the KMA salmon fishery in areas with
significant harvest of sockeye salmon stocks associated with run reconstructions. As discussed in the 2 operational plans outlining this study (Foster and Dann 2014, 2015), funding constraints limited the scope of this study to specific sampling areas and time periods. Outside of the sampling areas in this study are the Eastside Kodiak District, Afognak District, Mainland District (North of Cape Igyvak Section), Alitak District gillnet areas (Alitak Bay, Moser Bay, and Olga Bay sections), 5 SHAs, and 1 THA, with general openings targeting local pink, chum, and sockeye salmon (Shedd et al. 2016c). From 2014 to 2016, the average percent of the total KMA sockeye salmon harvest in these unsampled areas (those outside of the MSA sampling areas) was 31.3% (range: 30.8–32.5%). Additionally, sampling from the KMA sockeye salmon commercial harvest only occurred from June 1 to August 29 in all 3 years of this study; however, stock composition results from late August harvest in 2014 indicated that almost all fish were of Kodiak origin (see Appendix D in Shedd et al. 2016c). Overall, the stock composition and stock-specific harvest in this study represent 46.7%, 55.2%, and 62.4% of the total KMA sockeye salmon commercial harvest in 2014–2016 (Shedd et al. 2016c). Given these sampling constraints, the total stock-specific harvest of all reporting groups is incomplete. Although this 3-year data set provides some measure of interannual 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.

**PERFORMANCE OF THE BASELINE**

Previous SNP MSA analyses of sockeye salmon that separate Cook Inlet stocks have used 96 SNPs (Barclay and Habicht 2012). These analyses used 8 reporting groups that meet ADF&G standards. Two of the reporting groups requested by the BOF match 2 of these previously used reporting groups, and the other 2 are combinations of these reporting groups. However, the KMA fishery mixtures were analyzed with a reduced set of 48 SNPs (46 loci) that were selected to distinguish among the reporting groups identified for the KMA study (Shedd et al. 2016a; Shedd et al. 2016b). It was likely, but unknown, if this reduced set of SNPs would be adequate to meet ADF&G standards for MSA using the newly requested Cook Inlet subregional reporting groups.

Using the subset of 48 SNP markers screened in the KMA mixtures, the 4 Cook Inlet subregional reporting groups exceeded ADF&G’s standards for incorporation in MSA and identified little concern for asymmetric misallocations among these reporting groups. The smallest average correct allocation for the 4 Cook Inlet subregional reporting groups was 98.1%, which exceeded the 90% threshold used by ADF&G as adequate performance (Figure 2). In addition, the self-assignment likelihood profiles indicated little potential for misallocation among the 4 Cook Inlet subregional reporting groups and little asymmetric misallocation (misassignment from one reporting group to another, but not the reverse; Figure 1).

**SUMMARY**

These post hoc analyses were completed at the request of the BOF to provide them information to determine if and what allocation actions are appropriate for KMA fisheries. The analyses provide analytically sound stock-specific harvest estimates of Cook Inlet-origin sockeye salmon stocks harvested in sampled KMA fisheries between 2014 and 2016. The results show patterns (and variations in patterns) for Cook Inlet subregional stock compositions among fishing areas and periods across the 3 sampled years.
ACKNOWLEDGEMENTS

We thank the following dedicated members of the Gene Conservation Laboratory team: Heather Hoyt, Heather Liller, Paul Kuriscak, Erica Chenoweth, Zach Pechacek, Christina Elmaleh, and Bruce Whelan for producing quality data in a timely fashion. Gene Conservation Laboratory member Judy Berger archived samples and ensured accurate metadata, and Eric Lardizabal provided database support. We thank Region IV staff for their input, assistance, and sample collection, especially Molly McFarland, Laura Griffing, Michelle Canete, Chloe Ivanoff, Bri Bierma, Hannah Christian, Nyssa Baechler, Casey Dinnocenzo, Tracy Pedersen, Myra Scholz, Rose Wallin, and David Zimmer. Amanda Dorner provided updated GIS files for the creation of harvest maps. Kevin Schaberg, Geoff Spalinger, James Jackson, Michelle Wattum, Jeff Wadle, Pat Shields, Mark Willette, Jack Erickson, and Tim Baker assisted in reviewing this document. Funding for sample collection and laboratory analysis of sockeye salmon collections was provided by the State of Alaska. Impetus for these additional analyses came from the Alaska Board of Fisheries. Finally, we thank Jeff Regnart for prioritizing ADF&G resources to address this knowledge gap in KMA.
REFERENCES CITED


TABLES AND FIGURES
Table 1.—Kodiak Management Area, 2014, early temporal stratum. Median estimates of stock-specific harvest by sampling area for all subregional reporting groups. Numbers for Unknown (reporting group) and for Total by Year are estimates based on fish ticket information by area. See Appendix A1, A13, A25, and A37 for additional stock composition and stock-specific harvest statistics.

<table>
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<th>Reporting Group</th>
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<th>Ayakulik Halibut Bay</th>
<th>Karluk Sturgeon</th>
<th>Uyak</th>
<th>Uganik Kupreanof</th>
<th>Total by Reporting Group</th>
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Note: Stock-specific harvest estimates may not sum to the total harvest because summed medians are biased low.

Note: Results for Cook Inlet subregional reporting groups are only reported if the overall contribution to the Cook Inlet group in the stratum or any contributing strata is greater than 5%.
Table 2.—Kodiak Management Area, 2014, middle temporal stratum. Median estimates of stock-specific harvest by sampling area for all subregional reporting groups. Numbers for Unknown (reporting group) and for Total by Year are estimates based on fish ticket information by area. See Appendix A2, A14, A26, A38, and A49 for additional stock composition and stock-specific harvest statistics.

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<th>Karluk</th>
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<th>Total by Reporting Group</th>
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Note: Stock-specific harvest estimates may not sum to the total harvest because summed medians are biased low.

Note: Results for Cook Inlet subregional reporting groups are only reported if the overall contribution to the Cook Inlet group in the stratum or any contributing strata is greater than 5%.
Table 3.—Kodiak Management Area, 2014, late temporal stratum. Median estimates of stock-specific harvest by sampling area for all subregional reporting groups. Numbers for Unknown (reporting group) and for Total by Year are estimates based on fish ticket information by area. See Appendix A3, A15, A27, A39, and A50 for additional stock composition and stock-specific harvest statistics.

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<tr>
<th>Reporting Group</th>
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<th>Alitak</th>
<th>Ayakulik</th>
<th>Halibut Bay</th>
<th>Karluk</th>
<th>Sturgeon</th>
<th>Uyak</th>
<th>Uganik</th>
<th>Kupreanof</th>
<th>Total by Reporting Group</th>
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Note: Stock-specific harvest estimates may not sum to the total harvest because summed medians are biased low.

Note: Results for Cook Inlet subregional reporting groups are only reported if the overall contribution to the Cook Inlet group in the stratum or any contributing strata is greater than 5%.
Table 4—Kodiak Management Area, 2015, early temporal stratum. Median estimates of stock-specific harvest by sampling area for all subregional reporting groups. Numbers for Unknown (reporting group) and for Total by Year are estimates based on fish ticket information by area. See Appendix A5, A17, A29, A41, and A52 for additional stock composition and stock-specific harvest statistics.

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<th>Kupreanof</th>
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**Note:** Stock-specific harvest estimates may not sum to the total harvest because summed medians are biased low.

**Note:** Results for Cook Inlet subregional reporting groups are only reported if the overall contribution to the Cook Inlet group in the stratum or any contributing strata is greater than 5%.
Table 5—Kodiak Management Area, 2015, middle temporal stratum. Median estimates of stock-specific harvest by sampling area for all subregional reporting groups. Numbers for Unknown (reporting group) and for Total by Year are estimates based on fish ticket information by area. See Appendix A6, A18, A30, A42, A53, and A60 for additional stock composition and stock-specific harvest statistics.

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<th>Halibut Bay</th>
<th>Karluk</th>
<th>Sturgeon</th>
<th>Uyak</th>
<th>Uganik</th>
<th>Kupreanof</th>
<th>Total by Reporting Group</th>
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Note: Stock-specific harvest estimates may not sum to the total harvest because summed medians are biased low.

Note: Results for Cook Inlet subregional reporting groups are only reported if the overall contribution to the Cook Inlet group in the stratum or any contributing strata is greater than 5%.
Table 6.--Kodiak Management Area, 2015, late temporal stratum. Median estimates of stock-specific harvest by sampling area for all subregional reporting groups. Numbers for Unknown (reporting group) and for Total by Year are estimates based on fish ticket information by area. See Appendix A7, A19, A31, A43, and A54 for additional stock composition and stock-specific harvest statistics.

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</table>

**Note:** Stock-specific harvest estimates may not sum to the total harvest because summed medians are biased low.

**Note:** Results for Cook Inlet subregional reporting groups are only reported if the overall contribution to the Cook Inlet group in the stratum or any contributing strata is greater than 5%.
Table 7.—Kodiak Management Area, 2016, early temporal stratum. Median estimates of stock-specific harvest by sampling area for all subregional reporting groups. Numbers for Unknown (reporting group) and for Total by Year are estimates based on fish ticket information by area. See Appendix A9, A21, A33, A45, A56, and A62 for additional stock composition and stock-specific harvest statistics.

<table>
<thead>
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<th>Reporting Group</th>
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<th>Igvak</th>
<th>Alitak</th>
<th>Ayakulik Halibut Bay</th>
<th>Karluk Sturgeon</th>
<th>Uyak</th>
<th>Uganik Kupreanof</th>
<th>Total by Reporting Group</th>
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<td>*</td>
<td>*</td>
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<td>0</td>
<td>20</td>
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<td>*</td>
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Total by Sampling Area 83,870 154,318 11,118 3,937 13,856 37,238 62,771 367,108

Note: Stock-specific harvest estimates may not sum to the total harvest because summed medians are biased low.

Note: Results for Cook Inlet subregional reporting groups are only reported if the overall contribution to the Cook Inlet group in the stratum or any contributing strata is greater than 5%.
Table 8.–Kodiak Management Area, 2016, middle temporal stratum. Median estimates of stock-specific harvest by sampling area for all subregional reporting groups. Numbers for Unknown (reporting group) and for Total by Year are estimates based on fish ticket information by area. See Appendix A10, A22, A34, A46, A57, and A63 for additional stock composition and stock-specific harvest statistics.

<table>
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<th>Reporting Group</th>
<th>Unsampled Areas</th>
<th>Igvak</th>
<th>Alitak</th>
<th>Ayakulik</th>
<th>Halibut Bay</th>
<th>Karluk</th>
<th>Sturgeon</th>
<th>Uyak</th>
<th>Uganik</th>
<th>Kupreanof</th>
<th>Total by Reporting Group</th>
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</thead>
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<td>0</td>
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<td>423,895</td>
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<td>138,281</td>
<td>1,001,992</td>
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</table>

Note: Stock-specific harvest estimates may not sum to the total harvest because summed medians are biased low.

Note: Results for Cook Inlet subregional reporting groups are only reported if the overall contribution to the Cook Inlet group in the stratum or any contributing strata is greater than 5%.
Table 9.—Kodiak Management Area, 2016, late temporal stratum. Median estimates of stock-specific harvest by sampling area for all subregional reporting groups. Numbers for Unknown (reporting group) and for Total by Year are estimates based on fish ticket information by area. See Appendix A11, A23, A35, A47, and A58 for additional stock composition and stock-specific harvest statistics.

<table>
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<th>Reporting Group</th>
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<th>Alitak</th>
<th>Ayakulik</th>
<th>Halibut Bay</th>
<th>Karluk</th>
<th>Sturgeon</th>
<th>Uyak</th>
<th>Uganik</th>
<th>Kupreanof</th>
<th>Total by Reporting Group</th>
</tr>
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<td>0</td>
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<td>0</td>
<td>0</td>
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</tr>
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*Note: Stock-specific harvest estimates may not sum to the total harvest because summed medians are biased low.*

*Note: Results for Cook Inlet subregional reporting groups are only reported if the overall contribution to the Cook Inlet group in the stratum or any contributing strata is greater than 5%.*
Table 10.—Kodiak Management Area, 2014–2016. Median estimates of stock-specific harvest by year across all sampling areas for all subregional reporting groups. Numbers for Unknown (reporting group) and for Total by Year are estimates based on fish ticket information. See Appendices A65–67 for additional stock composition and stock-specific harvest statistics for these years.

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<td>27,924</td>
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<tr>
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<td>Northwest Kodiak</td>
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<td>3,938</td>
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<tr>
<td>Afognak</td>
<td>7,057</td>
<td>7,648</td>
<td>5,330</td>
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<td>2,988</td>
</tr>
<tr>
<td>Saltery</td>
<td>305,476</td>
<td>297,204</td>
<td>175,968</td>
</tr>
<tr>
<td>Other Cook Inlet</td>
<td>11,908</td>
<td>80,698</td>
<td>49,536</td>
</tr>
<tr>
<td>Susitna</td>
<td>4,466</td>
<td>75,989</td>
<td>39,440</td>
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<td>Kenai</td>
<td>60,973</td>
<td>365,335</td>
<td>272,160</td>
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<td>Kasilof</td>
<td>36,019</td>
<td>103,539</td>
<td>22,501</td>
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<tr>
<td>PWS</td>
<td>23,716</td>
<td>61,815</td>
<td>15,986</td>
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<tr>
<td>South of Cape Suckling</td>
<td>5,656</td>
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<td>4,949</td>
</tr>
<tr>
<td>Unknown</td>
<td>1,738,649</td>
<td>1,392,603</td>
<td>770,647</td>
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<tr>
<td>Total by Year</td>
<td>3,259,037</td>
<td>3,097,344</td>
<td>2,063,566</td>
</tr>
</tbody>
</table>

*Note: Stock-specific harvest estimates may not sum to the total harvest because summed medians are biased low.*
Figure 1.—Summary of mean genotype likelihood for all baseline individuals across reporting groups for the marker suite of 46 loci (48 SNPs). Probabilities off the diagonal indicate uncertainty in genetic assignment and provide indications of potential misallocation.
Figure 2.—Median percentage of fish correctly allocated back to reporting group of origin and 90% credibility intervals for mixtures of known individuals removed from the baseline populations that compose each reporting group (100% proof tests) using the program BAYES with a regionally flat prior and 46 loci (48 SNPs). One hundred forty-two individuals were removed from the Uganik reporting group, 134 individuals were removed from the Afognak reporting group, and 200 individuals were removed from all other groups. Each bar represents results from one of the 5 replicates, or sets of draws from the baseline populations. The solid line at 90% shows our threshold for reporting group performance.
Figure 3.—The Kodiak Management Area, Westward Region, with the areas included in this study highlighted.
Figure 4.–Uganik-Kupreanof (statistical areas 253-11, 12, 13, 14, 31, 32, 33, 34, 35), Kodiak Management Area, Alaska, 2014–2016. Stock-specific harvest estimates (medians) and 90% credibility intervals of samples of sockeye salmon harvests.
Figure 5.–Uyak (statistical areas 254-10, 20, 21, 30, 31, 40, 41; does not include Spiridon SHA 254-50), Kodiak Management Area, Alaska, 2014–2016. Stock-specific harvest estimates (medians) and 90% credibility intervals of samples of sockeye salmon harvests.
Figure 6.—Karuk-Sturgeon (statistical areas 255-10, 20; 256-40), Kodiak Management Area, Alaska, 2014–2016. Stock-specific harvest estimates (medians) and 90% credibility intervals of samples of sockeye salmon harvests.
Figure 7.—Ayakulik-Halibut Bay (statistical areas 256-10, 15, 20, 25, 30), Kodiak Management Area, Alaska, 2014–2016. Stock-specific harvest estimates (medians) and 90% credibility intervals of samples of sockeye salmon harvests.
Figure 8.–Ali’tar harvest estimates (statistical areas 257-10, 20, 50, 60, 70; seine harvest only), Kodiak Management Area, Alaska, 2014–2016. Stock-specific harvest estimates (medians) and 90% credibility intervals of samples of sockeye salmon harvests.
Figure 9.—Igvak (statistical areas 262-75, 80, 90, 95), Kodiak Management Area, Alaska, 2014–2016. Stock-specific harvest estimates (medians) and 90% credibility intervals of samples of sockeye salmon harvests.
Figure 10.–Kodiak Management Area, Alaska, 2014–2016. Stock composition estimates (medians) and 90% credibility intervals of samples of sockeye salmon harvests.
Figure 11.–Kodiak Management Area, Alaska, 2014–2016. Stock-specific harvest estimates (medians) and 90% credibility intervals of samples of sockeye salmon harvests.
Figure 12.—Early temporal stratum (June 1–27), 2014, Kodiak Management Area (KMA).

Key: The bubble plot shows stock-specific harvest estimates (medians) of sockeye salmon for all 6 sampling areas (x-axis) for all 17 subregional reporting groups (y-axis). The size of the circle represents the stock-specific harvest for a sampling area (see legend, top right). Reporting groups are denoted by color. The top bar plot shows the total harvest in each sampling area, along with the unsampled areas of the KMA. The right bar plot shows the stock-specific harvest and 90% credibility intervals for the entire temporal stratum across all sampling areas.
Key: The bubble plot shows stock-specific harvest estimates (medians) of sockeye salmon for all 6 sampling areas (x-axis) for all 17 subregional reporting groups (y-axis). The size of the circle represents the stock-specific harvest for a sampling area (see legend, top right). Reporting groups are denoted by color. The top bar plot shows the total harvest in each sampling area, along with the unsampled areas of the KMA. The right bar plot shows the stock-specific harvest and 90% credibility intervals for the entire temporal stratum across all sampling areas.

Figure 13.—Middle temporal stratum (June 28–July 25), 2014, Kodiak Management Area (KMA).
Figure 14.—Late temporal stratum (July 25–August 29), 2014, Kodiak Management Area (KMA).

Key: The bubble plot shows stock-specific harvest estimates (medians) of sockeye salmon for all 6 sampling areas (x-axis) for all 17 subregional reporting groups (y-axis). The size of the circle represents the stock-specific harvest for a sampling area (see legend, top right). Reporting groups are denoted by color. The top bar plot shows the total harvest in each sampling area, along with the unsampled areas of the KMA. The right bar plot shows the stock-specific harvest and 90% credibility intervals for the entire temporal stratum across all sampling areas.
Figure 15.—Postsampling (after August 29), 2014, Kodiak Management Area (KMA). Stock-specific harvest estimates are not available as no samples were collected.

Key: The top bar plot shows the total harvest in each sampling area, along with the unsampled areas of the KMA.
Figure 16.—Early temporal stratum (June 1–July 3), 2015, Kodiak Management Area (KMA).

Key: The bubble plot shows stock-specific harvest estimates (medians) of sockeye salmon for all 6 sampling areas (x-axis) for all 17 subregional reporting groups (y-axis). The size of the circle represents the stock-specific harvest for a sampling area (see legend, top right). Reporting groups are denoted by color. The top bar plot shows the total harvest in each sampling area, along with the unsampled areas of the KMA. The right bar plot shows the stock-specific harvest and 90% credibility intervals for the entire temporal stratum across all sampling areas.
Figure 17.—Middle temporal stratum (July 4–August 1), 2015, Kodiak Management Area (KMA).

Key: The bubble plot shows stock-specific harvest estimates (medians) of sockeye salmon for all 6 sampling areas (x-axis) for all 17 subregional reporting groups (y-axis). The size of the circle represents the stock-specific harvest for a sampling area (see legend, top right). Reporting groups are denoted by color. The top bar plot shows the total harvest in each sampling area, along with the unsampled areas of the KMA. The right bar plot shows the stock-specific harvest and 90% credibility intervals for the entire temporal stratum across all sampling areas.
Figure 18.—Late temporal stratum (August 2–29), 2015, Kodiak Management Area (KMA).

Key: The bubble plot shows stock-specific harvest estimates (medians) of sockeye salmon for all 6 sampling areas (x-axis) for all 17 subregional reporting groups (y-axis). The size of the circle represents the stock-specific harvest for a sampling area (see legend, top right). Reporting groups are denoted by color. The top bar plot shows the total harvest in each sampling area, along with the unsampled areas of the KMA. The right bar plot shows the stock-specific harvest and 90% credibility intervals for the entire temporal stratum across all sampling areas.
Figure 19.–Postsampling (after August 29), 2015, Kodiak Management Area (KMA). Stock-specific harvest estimates are not available as no samples were collected.

Key: The top bar plot shows the total harvest in each sampling area, along with the unsampled areas of the KMA.
Figure 20.—Early temporal stratum (June 1–27), 2016, Kodiak Management Area (KMA).

Key: The bubble plot shows stock-specific harvest estimates (medians) of sockeye salmon for all 6 sampling areas (x-axis) for all 17 subregional reporting groups (y-axis). The size of the circle represents the stock-specific harvest for a sampling area (see legend, top right). Reporting groups are denoted by color. The top bar plot shows the total harvest in each sampling area, along with the unsampled areas of the KMA. The right bar plot shows the stock-specific harvest and 90% credibility intervals for the entire temporal stratum across all sampling areas.
Figure 21.—Middle temporal stratum (June 28–July 25), 2016, Kodiak Management Area (KMA).

Key: The bubble plot shows stock-specific harvest estimates (medians) of sockeye salmon for all 6 sampling areas (x-axis) for all 17 subregional reporting groups (y-axis). The size of the circle represents the stock-specific harvest for a sampling area (see legend, top right). Reporting groups are denoted by color. The top bar plot shows the total harvest in each sampling area, along with the unsampled areas of the KMA. The right bar plot shows the stock-specific harvest and 90% credibility intervals for the entire temporal stratum across all sampling areas.
Key: The bubble plot shows stock-specific harvest estimates (medians) of sockeye salmon for all 6 sampling areas (x-axis) for all 17 subregional reporting groups (y-axis). The size of the circle represents the stock-specific harvest for a sampling area (see legend, top right). Reporting groups are denoted by color. The top bar plot shows the total harvest in each sampling area, along with the unsampled areas of the KMA. The right bar plot shows the stock-specific harvest and 90% credibility intervals for the entire temporal stratum across all sampling areas.
Figure 23.—Postsampling (after August 29), 2016, Kodiak Management Area (KMA). Stock-specific harvest estimates are not available as no samples were collected.

Key: The top bar plot shows the total harvest in each sampling area, along with the unsampled areas of the KMA.
Figure 24.–Kodiak Management Area, Alaska, 2014–2016. Stock composition estimates (medians) of Cook Inlet-origin contribution to samples of sockeye salmon harvests.

Key: Each map shows the percentage of Cook Inlet-origin fish for each of the 6 sampling areas. The 3 temporal strata (Early, Middle, Late) are in columns and the 3 sampling years (2014–2016) are in rows. If no estimates were available for a given sampling area, it is crossed out.
Figure 25.—Kodiak Management Area, Alaska, 2014–2016. Stock-specific harvest estimates (medians) of Cook Inlet-origin contribution to samples of sockeye salmon harvests.

Key: Each map shows the harvest of Cook Inlet-origin fish for each of the 6 sampling areas. The 3 temporal strata (Early, Middle, Late) are in columns and the 3 sampling years (2014–2016) are in rows. If no estimates were available for a given sampling area, it is crossed out.
APPENDIX A: DETAILED ESTIMATES OF STOCK COMPOSITION (%) AND STOCK-SPECIFIC HARVEST
Appendix A1—Uganik-Kupreanof (statistical areas 253-11, 12, 13, 14, 31, 32, 33, 34, 35), temporal stratum 1 (“Early”; June 1–27; Harvest = 79,494; \(n = 376\)), 2014. Regional and subregional (within Chignik, Kodiak, and Cook Inlet) estimates of stock composition (%) and stock-specific harvest. Estimates include median, 90% credibility interval (CI), the probability that the group estimate is equal to zero (P = 0), mean, and standard deviation (SD).

<table>
<thead>
<tr>
<th>Reporting Group</th>
<th>Stock Composition</th>
<th>Stock-specific Harvest</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Median 90% CI</td>
<td>Mean SD</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Regional</strong></td>
<td><strong>Subregional</strong></td>
<td><strong>90% CI</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>5%</strong> <strong>95%</strong> <strong>P = 0</strong></td>
</tr>
<tr>
<td>West of Chignik</td>
<td>6.6 4.4 9.5 0.00  6.7 1.6</td>
<td>5,273 3,466 7,545 5,359 1,247</td>
</tr>
<tr>
<td>Chignik</td>
<td>5.9 3.7 8.6 0.00  6.0 1.5</td>
<td>4,680 2,977 6,802 4,759 1,169</td>
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<tr>
<td>Kodiak</td>
<td>84.7 80.9 88.1 0.00  84.6 2.2</td>
<td>67,332 64,302 70,024 67,268 1,740</td>
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<tr>
<td>Cook Inlet</td>
<td>0.8 0.1 2.7 0.00  1.0 0.8</td>
<td>619 81 2,155 801 671</td>
</tr>
<tr>
<td>Prince William Sound</td>
<td>1.3 0.5 3.0 0.00  1.5 0.8</td>
<td>1,065 399 2,347 1,178 618</td>
</tr>
<tr>
<td>South of Cape Suckling</td>
<td>0.0 0.0 0.9 0.42  0.2 0.4</td>
<td>0 0 753 129 322</td>
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<tr>
<td></td>
<td>Total</td>
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<tr>
<td>Chignik</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black Lake</td>
<td>4.4 1.9 7.3 0.00  4.5 1.7</td>
<td>3,486 1,493 5,838 3,550 1,327</td>
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<tr>
<td>Chignik Lake</td>
<td>1.2 0.0 4.3 0.14  1.5 1.5</td>
<td>977 0 3,425 1,209 1,172</td>
</tr>
<tr>
<td>Kodiak</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper Station / Akalura</td>
<td>0.7 0.0 1.9 0.09  0.7 0.6</td>
<td>524 0 1,500 595 485</td>
</tr>
<tr>
<td>Ayakulik / Frazer</td>
<td>15.8 12.3 19.7 0.00  15.9 2.2</td>
<td>12,571 9,813 15,629 12,623 1,775</td>
</tr>
<tr>
<td>Karluk</td>
<td>20.1 15.8 24.8 0.00  20.2 2.7</td>
<td>16,000 12,591 19,712 16,052 2,166</td>
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<tr>
<td>Uganik</td>
<td>15.2 11.6 19.2 0.00  15.3 2.3</td>
<td>12,073 9,251 15,229 12,133 1,819</td>
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<tr>
<td>Northwest Kodiak</td>
<td>5.2 2.9 8.1 0.00  5.3 1.6</td>
<td>4,121 2,275 6,421 4,206 1,271</td>
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<tr>
<td>Afognak</td>
<td>4.9 3.1 7.2 0.00  5.0 1.3</td>
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<td>0.0 0.0 0.9 0.47  0.1 0.4</td>
<td>0 0 715 110 317</td>
</tr>
<tr>
<td>Saltery</td>
<td>22.1 18.1 26.4 0.00  22.2 2.5</td>
<td>17,565 14,359 21,003 17,608 2,023</td>
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<tr>
<td>Cook Inlet</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Cook Inlet</td>
<td>* * * * * * * * *</td>
<td></td>
</tr>
<tr>
<td>Susitna</td>
<td>* * * * * * * * *</td>
<td></td>
</tr>
<tr>
<td>Kenai</td>
<td>* * * * * * * * *</td>
<td></td>
</tr>
<tr>
<td>Kasilof</td>
<td>* * * * * * * * *</td>
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</tr>
</tbody>
</table>

Note: Stock composition estimates may not sum to 100% and stock-specific harvest estimates may not sum to the total harvest due to rounding error.

Note: Results for Cook Inlet subregional reporting groups are only reported if the overall contribution to the Cook Inlet group in the stratum or any contributing strata is greater than 5%.
Appendix A2—Uganik-Kupreanof (statistical areas 253-11, 12, 13, 14, 31, 32, 33, 34, 35), temporal stratum 2 (“Middle”; June 28–July 25; Harvest = 128,836; n = 376), 2014. Regional and subregional (within Chignik, Kodiak, and Cook Inlet) estimates of stock composition (%) and stock-specific harvest. Estimates include median, 90% credibility interval (CI), the probability that the group estimate is equal to zero (P = 0), mean, and standard deviation (SD).

<table>
<thead>
<tr>
<th>Reporting Group</th>
<th>Stock Composition</th>
<th>Stock-specific Harvest</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>90% CI</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Median 5% 95%</td>
<td>P = 0 Mean SD</td>
</tr>
<tr>
<td>Regional</td>
<td>Subregional</td>
<td></td>
</tr>
<tr>
<td>West of Chignik</td>
<td>0.0 0.0 1.6 0.47 3.5 0.7</td>
<td>0 0 2,110 326 950</td>
</tr>
<tr>
<td>Chignik</td>
<td>3.4 1.8 5.7 0.00 3.5 1.2</td>
<td>4,403 2,260 7,316 4,545 1,551</td>
</tr>
<tr>
<td>Kodiak</td>
<td>89.3 85.8 92.4 0.00 89.2 2.0</td>
<td>115,105 110,499 119,036 114,977 2,609</td>
</tr>
<tr>
<td>Cook Inlet</td>
<td>0.4 0.0 2.8 0.36 0.8 1.0</td>
<td>498 0 3,570 1,003 1,265</td>
</tr>
<tr>
<td>Prince William Sound</td>
<td>6.1 3.9 8.8 0.00 6.2 1.5</td>
<td>7,839 5,016 11,356 7,965 1,935</td>
</tr>
<tr>
<td>South of Cape Suckling</td>
<td>0.0 0.0 0.0 0.90 0.0 0.1</td>
<td>0 0 10 19 150</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>128,836</td>
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</tr>
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<tr>
<td>Chignik</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black Lake</td>
<td>0.9 0.0 2.3 0.06 1.0 0.7</td>
<td>1,137 0 2,992 1,266 934</td>
</tr>
<tr>
<td>Chignik Lake</td>
<td>2.4 0.9 4.7 0.00 2.5 1.2</td>
<td>3,085 1,191 6,048 3,279 1,503</td>
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<tr>
<td>Kodiak</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper Station / Akalura</td>
<td>0.0 0.0 1.5 0.58 0.3 0.6</td>
<td>0 0 1,974 412 717</td>
</tr>
<tr>
<td>Ayakulik / Frazer</td>
<td>3.4 1.9 5.4 0.00 3.5 1.1</td>
<td>4,331 2,415 6,931 4,457 1,388</td>
</tr>
<tr>
<td>Karluk</td>
<td>9.2 6.5 12.4 0.00 9.3 1.8</td>
<td>11,895 8,398 15,965 12,006 2,306</td>
</tr>
<tr>
<td>Uganik</td>
<td>6.4 3.6 10.0 0.00 6.5 2.0</td>
<td>8,208 4,668 12,863 8,413 2,514</td>
</tr>
<tr>
<td>Northwest Kodiak</td>
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<td>0 0 1,428 251 529</td>
</tr>
<tr>
<td>Afognak</td>
<td>0.7 0.0 2.0 0.05 0.8 0.6</td>
<td>927 0 2,515 1,051 780</td>
</tr>
<tr>
<td>Eastside Kodiak</td>
<td>0.0 0.0 0.8 0.86 0.1 0.6</td>
<td>0 0 971 157 710</td>
</tr>
<tr>
<td>Saltery</td>
<td>68.5 63.7 73.1 0.00 68.5 2.9</td>
<td>88,284 82,072 94,223 88,230 3,691</td>
</tr>
<tr>
<td>Cook Inlet</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Cook Inlet</td>
<td>* * * * * * * * *</td>
<td>* * * * * * * * *</td>
</tr>
<tr>
<td>Susitna</td>
<td>* * * * * * * * *</td>
<td>* * * * * * * * *</td>
</tr>
<tr>
<td>Kenai</td>
<td>* * * * * * * * *</td>
<td>* * * * * * * * *</td>
</tr>
<tr>
<td>Kasilof</td>
<td>* * * * * * * * *</td>
<td>* * * * * * * * *</td>
</tr>
</tbody>
</table>

Note: Stock composition estimates may not sum to 100% and stock-specific harvest estimates may not sum to the total harvest due to rounding error.

Note: Results for Cook Inlet subregional reporting groups are only reported if the overall contribution to the Cook Inlet group in the stratum or any contributing strata is greater than 5%.
Appendix A3.–Uganik-Kupreanof (statistical areas 253-11, 12, 13, 14, 31, 32, 33, 34, 35), temporal stratum 3 (“Late”; July 26–August 29; Harvest = 163,843; n = 654), 2014. Regional and subregional (within Chignik, Kodiak, and Cook Inlet) estimates of stock composition (%) and stock-specific harvest. Estimates include median, 90% credibility interval (CI), the probability that the group estimate is equal to zero (P = 0), mean, and standard deviation (SD).

<table>
<thead>
<tr>
<th>Reporting Group</th>
<th>Stock Composition</th>
<th></th>
<th>Stock-specific Harvest</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>90% CI</td>
<td></td>
<td>90% CI</td>
</tr>
<tr>
<td></td>
<td>Median</td>
<td>5%</td>
<td>95%</td>
<td>P = 0</td>
</tr>
<tr>
<td>Regional</td>
<td>Subregional</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>West of Chignik</td>
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<td>0.0</td>
<td>0.3</td>
<td>0.77</td>
</tr>
<tr>
<td>Chignik</td>
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<td>0.3</td>
<td>1.2</td>
<td>0.00</td>
</tr>
<tr>
<td>Kodiak</td>
<td>96.3</td>
<td>95.1</td>
<td>97.3</td>
<td>0.00</td>
</tr>
<tr>
<td>Cook Inlet</td>
<td>1.9</td>
<td>1.3</td>
<td>2.6</td>
<td>0.00</td>
</tr>
<tr>
<td>Prince William Sound</td>
<td>0.1</td>
<td>0.0</td>
<td>0.7</td>
<td>0.24</td>
</tr>
<tr>
<td>South of Cape Suckling</td>
<td>0.8</td>
<td>0.2</td>
<td>1.8</td>
<td>0.00</td>
</tr>
</tbody>
</table>

**Note:** Stock composition estimates may not sum to 100% and stock-specific harvest estimates may not sum to the total harvest due to rounding error.

**Note:** Results for Cook Inlet subregional reporting groups are only reported if the overall contribution to the Cook Inlet group in the stratum or any contributing strata is greater than 5%.
Appendix A4—Uganik-Kupreanof (statistical areas 253-11, 12, 13, 14, 31, 32, 33, 34, 35), 2014, all strata. Annual regional and subregional (within Chignik, Kodiak, and Cook Inlet) estimates of stock composition (%) and stock-specific harvest. Estimates include median, 90% credibility interval (CI), the probability that the group estimate is equal to zero (P = 0), mean, and standard deviation (SD).

<table>
<thead>
<tr>
<th>Reporting Group</th>
<th>Stock Composition</th>
<th>Stock-specific Harvest</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Median 5% 95% P = 0 Mean SD</td>
<td>Median 5% 95% Mean SD</td>
</tr>
<tr>
<td><strong>Regional</strong></td>
<td><strong>Subregional</strong></td>
<td><strong>90% CI</strong></td>
</tr>
<tr>
<td>West of Chignik</td>
<td>1.5  1.0  2.3  0.00  1.5  0.4</td>
<td>5,551  3,604  8,495  5,738  1,562</td>
</tr>
<tr>
<td>Chignik</td>
<td>2.8  2.0  3.7  0.00  2.8  0.5</td>
<td>10,353  7,363  13,952  10,463  2,010</td>
</tr>
<tr>
<td>Kodiak</td>
<td>91.4  89.8  92.8  0.00  91.4  0.9</td>
<td>340,121  334,286  345,334  340,006  3,359</td>
</tr>
<tr>
<td>Cook Inlet</td>
<td>1.3  0.8  2.1  0.00  1.3  0.4</td>
<td>4,719  2,863  7,868  4,963  1,562</td>
</tr>
<tr>
<td>Prince William Sound</td>
<td>2.5  1.7  3.5  0.00  2.5  0.6</td>
<td>9,324  6,288  13,062  9,456  2,069</td>
</tr>
<tr>
<td>South of Cape Suckling</td>
<td>0.4  0.1  0.9  0.00  0.4  0.2</td>
<td>1,382  434  3,232  1,546  882</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>372,173</td>
</tr>
</tbody>
</table>

| Chignik         | Black Lake        | 1.3  0.6  2.1  0.00  1.3  0.4 | 4,732  2,305  7,649  4,823  1,629 |
| Chignik Lake    | 1.5  0.7  2.5  0.00  1.5  0.5 | 5,459  2,762  9,144  5,640  1,962 |

| Kodiak          | Upper Station / Akalura | 2.2  1.2  3.5  0.00  2.3  0.7 | 8,203  4,471  12,985  8,393  2,604 |
| Ayakulik / Frazer | 4.7  3.7  5.9  0.00  4.7  0.7 | 17,431  13,712  22,075  17,603  2,559 |
| Karluk          | 42.8  40.8  44.7  0.00  42.8  1.2 | 159,307  151,964  166,443  159,268  4,400 |
| Uganik          | 5.5  4.2  7.0  0.00  5.5  0.8 | 20,466  15,736  26,016  20,613  3,130 |
| Northwest Kodiak | 1.2  0.7  1.9  0.00  1.2  0.4 | 4,696  2,493  7,042  4,581  1,396 |
| Afognak         | 1.3  0.8  1.9  0.00  1.3  0.3 | 4,913  3,078  7,241  5,002  1,270 |
| Eastside Kodiak | 0.0  0.0  0.4  0.39  0.1  0.2 | 2  0  1,671  284  788 |
| Sallery         | 33.4  31.4  35.3  0.00  33.4  1.2 | 124,286  116,890  131,529  124,261  4,454 |

| Cook Inlet      | Other Cook Inlet   | *  *  *  *  *  *  *  *  *  *  *  *  *  *  |
| Susitna         | *  *  *  *  *  *  *  *  *  *  *  *  *  *  |
| Kenai           | *  *  *  *  *  *  *  *  *  *  *  *  *  *  |
| Kasilof         | *  *  *  *  *  *  *  *  *  *  *  *  *  *  |

**Note:** Stock composition estimates may not sum to 100% and stock-specific harvest estimates may not sum to the total harvest due to rounding error.

**Note:** Results for Cook Inlet subregional reporting groups are only reported if the overall contribution to the Cook Inlet group in the stratum or any contributing strata is greater than 5%.
Appendix A5.—Uganik-Kupreanof (statistical areas 253-11, 12, 13, 14, 31, 32, 33, 34, 35), temporal stratum 1 ("Early"; June 1–July 3; Harvest = 31,607; n = 378), 2015. Regional and subregional (within Chignik, Kodiak, and Cook Inlet) estimates of stock composition (%) and stock-specific harvest. Estimates include median, 90% credibility interval (CI), the probability that the group estimate is equal to zero (P = 0), mean, and standard deviation (SD).

<table>
<thead>
<tr>
<th>Reporting Group</th>
<th>Stock Composition</th>
<th>Stock-specific Harvest</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Median</td>
<td>90% CI</td>
</tr>
<tr>
<td>Regional Subregional</td>
<td></td>
<td></td>
</tr>
<tr>
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<td>0.0</td>
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<tr>
<td>Chignik</td>
<td>8.9</td>
<td>6.4</td>
</tr>
<tr>
<td>Kodiak</td>
<td>76.4</td>
<td>71.9</td>
</tr>
<tr>
<td>Cook Inlet</td>
<td>8.2</td>
<td>5.5</td>
</tr>
<tr>
<td>Prince William Sound</td>
<td>5.5</td>
<td>0.8</td>
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<tr>
<td>South of Cape Suckling</td>
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<td>0.0</td>
</tr>
<tr>
<td>Total</td>
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<td></td>
</tr>
<tr>
<td>Chignik</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black Lake</td>
<td>8.9</td>
<td>6.4</td>
</tr>
<tr>
<td>Chignik Lake</td>
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<td>0.0</td>
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<tr>
<td>Kodiak</td>
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<td></td>
</tr>
<tr>
<td>Upper Station / Akalura</td>
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<td>0.0</td>
</tr>
<tr>
<td>Ayakulik / Frazer</td>
<td>2.2</td>
<td>0.7</td>
</tr>
<tr>
<td>Karluk</td>
<td>13.9</td>
<td>10.4</td>
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<td>Afognak</td>
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<td>8.2</td>
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<tr>
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<td>0.0</td>
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<tr>
<td>Saltery</td>
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<td>5.6</td>
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<tr>
<td>Cook Inlet</td>
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<td></td>
</tr>
<tr>
<td>Other Cook Inlet</td>
<td>4.2</td>
<td>2.1</td>
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<tr>
<td>Susitna</td>
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<td>0.0</td>
</tr>
<tr>
<td>Kenai</td>
<td>0.7</td>
<td>0.2</td>
</tr>
<tr>
<td>Kaslif</td>
<td>3.0</td>
<td>1.6</td>
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</tbody>
</table>

*Note:* Stock composition estimates may not sum to 100% and stock-specific harvest estimates may not sum to the total harvest due to rounding error.

*Note:* Results for Cook Inlet subregional reporting groups are only reported if the overall contribution to the Cook Inlet group in the stratum or any contributing strata is greater than 5%.
Appendix A6. — Uganik-Kupreanof (statistical areas 253-11, 12, 13, 14, 31, 32, 33, 34, 35), temporal stratum 2 (“Middle”; July 4–August 1; Harvest = 215,645; \( n = 379 \)), 2015. Regional and subregional (within Chignik, Kodiak, and Cook Inlet) estimates of stock composition (%) and stock-specific harvest. Estimates include median, 90% credibility interval (CI), the probability that the group estimate is equal to zero (\( P = 0 \)), mean, and standard deviation (SD).

<table>
<thead>
<tr>
<th>Reporting Group</th>
<th>Stock Composition</th>
<th>Stock-specific Harvest</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>90% CI</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Median 5% 95% P = 0 Mean SD</td>
<td>Median 5% 95% Mean SD</td>
</tr>
<tr>
<td>West of Chignik</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chignik</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chignik Lake</td>
<td>0.0 0.0 0.2 0.87 0.0 0.2</td>
<td>0 0 0 368 88 480</td>
</tr>
<tr>
<td>Black Lake</td>
<td>0.0 0.0 0.9 0.40 0.1 0.4</td>
<td>2 0 1,945 317 796</td>
</tr>
<tr>
<td>Chignik</td>
<td>4.2 2.1 7.0 0.00 4.3 1.5</td>
<td>9,037 4,489 15,115 9,318 3,247</td>
</tr>
<tr>
<td>Chignik Lake</td>
<td>72.4 67.7 76.9 0.00 72.4 2.8</td>
<td>156,176 145,958 165,797 156,059 6,033</td>
</tr>
<tr>
<td>Cook Inlet</td>
<td>17.5 13.7 21.8 0.00 17.6 2.4</td>
<td>37,774 29,584 46,918 37,934 5,263</td>
</tr>
<tr>
<td>Prince William Sound</td>
<td>5.5 3.1 8.5 0.00 5.6 1.7</td>
<td>11,886 6,686 18,401 12,139 3,590</td>
</tr>
<tr>
<td>South of Cape Suckling</td>
<td>0.0 0.0 0.3 0.82 0.0 0.2</td>
<td>0 0 752 107 426</td>
</tr>
<tr>
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<tr>
<td>Kodiak</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chignik</td>
<td>0.0 0.0 0.0 0.91 0.0 0.1</td>
<td>0 0 0 6 15 133</td>
</tr>
<tr>
<td>Black Lake</td>
<td>1.4 0.4 2.9 0.00 1.5 0.8</td>
<td>2,974 877 6,361 3,210 1,702</td>
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<tr>
<td>Upper Station / Akalura</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ayakulik / Frazier</td>
<td>9.2 6.4 12.5 0.00 9.3 1.9</td>
<td>19,845 13,791 26,898 20,034 3,995</td>
</tr>
<tr>
<td>Karluk</td>
<td>4.5 2.4 7.4 0.00 4.7 1.6</td>
<td>9,812 5,068 16,033 10,087 3,357</td>
</tr>
<tr>
<td>Uganik</td>
<td>0.4 0.0 1.9 0.16 0.6 0.7</td>
<td>871 0 4,186 1,307 1,454</td>
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<tr>
<td>Northwest Kodiak</td>
<td>0.0 0.0 0.4 0.38 0.1 0.2</td>
<td>2 0 861 145 401</td>
</tr>
<tr>
<td>Afognak</td>
<td>0.0 0.0 0.0 0.89 0.1 0.4</td>
<td>0 0 93 117 811</td>
</tr>
<tr>
<td>Eastside Kodiak</td>
<td>56.2 51.2 61.1 0.00 56.2 3.0</td>
<td>121,181 110,481 131,688 121,143 6,445</td>
</tr>
<tr>
<td>Saltery</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Cook Inlet</td>
<td>2.1 0.0 4.7 0.05 2.2 1.4</td>
<td>4,493 0 10,206 4,760 3,043</td>
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<tr>
<td>Susitna</td>
<td>5.5 3.1 8.6 0.00 5.6 1.7</td>
<td>11,840 6,712 18,603 12,140 3,649</td>
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<tr>
<td>Kenai</td>
<td>7.2 4.4 10.7 0.00 7.3 1.9</td>
<td>15,510 9,533 23,061 15,809 4,133</td>
</tr>
<tr>
<td>Kasilof</td>
<td>2.4 0.6 4.4 0.02 2.4 1.1</td>
<td>5,099 1,314 9,513 5,225 2,474</td>
</tr>
</tbody>
</table>

Note: Stock composition estimates may not sum to 100% and stock-specific harvest estimates may not sum to the total harvest due to rounding error.

Note: Results for Cook Inlet subregional reporting groups are only reported if the overall contribution to the Cook Inlet group in the stratum or any contributing strata is greater than 5%.  

Total: 215,645
Appendix A7.–Uganik-Kupreanof (statistical areas 253-11, 12, 13, 14, 31, 32, 33, 34, 35), temporal stratum 3 (“Late”; August 2–29; Harvest = 143,567; \( n = 377 \)), 2015. Regional and subregional (within Chignik, Kodiak, and Cook Inlet) estimates of stock composition (%) and stock-specific harvest. Estimates include median, 90% credibility interval (CI), the probability that the group estimate is equal to zero (P = 0), mean, and standard deviation (SD).

<table>
<thead>
<tr>
<th>Reporting Group</th>
<th>Stock Composition</th>
<th>Stock-specific Harvest</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Reporting Group</td>
<td>Subregional</td>
</tr>
<tr>
<td>Regional</td>
<td></td>
<td></td>
</tr>
<tr>
<td>West of Chignik</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chignik</td>
<td></td>
<td></td>
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<tr>
<td>Kodiak</td>
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</tr>
<tr>
<td>Cook Inlet</td>
<td></td>
<td></td>
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<tr>
<td>Prince William Sound</td>
<td></td>
<td></td>
</tr>
<tr>
<td>South of Cape Suckling</td>
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<tr>
<td>Chignik</td>
<td></td>
<td>Black Lake</td>
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<tr>
<td></td>
<td></td>
<td>Chignik Lake</td>
</tr>
<tr>
<td>Kodiak</td>
<td></td>
<td>Upper Station / Akalura</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ayakulik / Frazer</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Karluk</td>
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<tr>
<td></td>
<td></td>
<td>Uganik</td>
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<tr>
<td></td>
<td></td>
<td>Northwest Kodiak</td>
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<td></td>
<td></td>
<td>Afognak</td>
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<td></td>
<td></td>
<td>Eastside Kodiak</td>
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<td></td>
<td></td>
<td>Saltery</td>
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<tr>
<td></td>
<td>Other Cook Inlet</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Susitna</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Kenai</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Kasilof</td>
<td></td>
</tr>
</tbody>
</table>

Note: Stock composition estimates may not sum to 100% and stock-specific harvest estimates may not sum to the total harvest due to rounding error.

Note: Results for Cook Inlet subregional reporting groups are only reported if the overall contribution to the Cook Inlet group in the stratum or any contributing strata is greater than 5%.
Appendix A8—Uganik-Kupreanof (statistical areas 253-11, 12, 13, 14, 31, 32, 33, 34, 35), 2015, all strata. Annual regional and subregional (within Chignik, Kodiak, and Cook Inlet) estimates of stock composition (%) and stock-specific harvest. Estimates include median, 90% credibility interval (CI), the probability that the group estimate is equal to zero (P = 0), mean, and standard deviation (SD).

<table>
<thead>
<tr>
<th>Reporting Group</th>
<th>Stock Composition</th>
<th>Stock-specific Harvest</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>90% CI</td>
<td>90% CI</td>
</tr>
<tr>
<td></td>
<td>Median 5% 95% P = 0</td>
<td>Mean SD</td>
</tr>
<tr>
<td></td>
<td>Median 5% 95% Mean</td>
<td>Mean SD</td>
</tr>
<tr>
<td><strong>Regional</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>West of Chignik</td>
<td>0.0 0.0 0.3 0.25 0.1</td>
<td>0.1</td>
</tr>
<tr>
<td>Chignik</td>
<td>3.7 2.3 5.4 0.00 3.8</td>
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</tr>
<tr>
<td>Kodiak</td>
<td>68.2 65.1 71.3 0.00 68.2</td>
<td>1.9</td>
</tr>
<tr>
<td>Cook Inlet</td>
<td>21.8 19.1 24.7 0.00 21.8</td>
<td>1.7</td>
</tr>
<tr>
<td>Prince William Sound</td>
<td>5.5 3.8 7.5 0.00 5.5</td>
<td>1.1</td>
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<tr>
<td>South of Cape Suckling</td>
<td>0.5 0.0 1.4 0.03 0.6</td>
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<td><strong>Subregional</strong></td>
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<tr>
<td>Black Lake</td>
<td>0.8 0.5 1.3 0.00 0.8</td>
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<tr>
<td>Chignik Lake</td>
<td>2.9 1.6 4.6 0.00 3.0</td>
<td>0.9</td>
</tr>
<tr>
<td>Upper Station / Akalura</td>
<td>0.2 0.0 0.8 0.17 0.3</td>
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<td>Ayakulik / Fraze</td>
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<tr>
<td>Karluk</td>
<td>14.0 11.9 16.4 0.00 14.1</td>
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<td>Uganik</td>
<td>6.2 4.7 8.0 0.00 6.2</td>
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</tr>
<tr>
<td>Northwest Kodiak</td>
<td>1.1 0.6 1.9 0.00 1.1</td>
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</tr>
<tr>
<td>Afognak</td>
<td>1.0 0.7 1.4 0.00 1.0</td>
<td>0.2</td>
</tr>
<tr>
<td>Eastside Kodiak</td>
<td>0.1 0.0 0.4 0.00 0.1</td>
<td>0.2</td>
</tr>
<tr>
<td>Saltery</td>
<td>44.3 41.1 47.5 0.00 44.3</td>
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</tr>
<tr>
<td><strong>Cook Inlet</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Cook Inlet</td>
<td>2.4 1.1 4.0 0.00 2.5</td>
<td>0.9</td>
</tr>
<tr>
<td>Susitna</td>
<td>4.5 3.0 6.4 0.00 4.6</td>
<td>1.0</td>
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<tr>
<td>Kenai</td>
<td>13.0 10.7 15.5 0.00 13.0</td>
<td>1.5</td>
</tr>
<tr>
<td>Kasilof</td>
<td>1.7 0.7 2.9 0.00 1.7</td>
<td>0.7</td>
</tr>
</tbody>
</table>

*Note: Stock composition estimates may not sum to 100% and stock-specific harvest estimates may not sum to the total harvest due to rounding error.*

*Note: Results for Cook Inlet subregional reporting groups are only reported if the overall contribution to the Cook Inlet group in the stratum or any contributing strata is greater than 5%.*
Appendix A9.–Uganik-Kupreanof (statistical areas 253-11, 12, 13, 14, 31, 32, 33, 34, 35), temporal stratum 1 ("Early"; June 1–27; Harvest = 62,771; \( n = 375 \)), 2016. Regional and subregional (within Chignik, Kodiak, and Cook Inlet) estimates of stock composition (%) and stock-specific harvest. Estimates include median, 90% credibility interval (CI), the probability that the group estimate is equal to zero (\( P = 0 \)), mean, and standard deviation (SD).

<table>
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<th>Reporting Group</th>
<th>Stock Composition</th>
<th>Stock-specific Harvest</th>
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<td>Regional</td>
<td>Subregional</td>
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<tr>
<td>Chignik</td>
<td>West of Chignik</td>
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<td>Black Lake</td>
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<td>Saltery</td>
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<tr>
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<td>Other Cook Inlet</td>
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</tr>
<tr>
<td></td>
<td>Susitna</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Kenai</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Kasilof</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td></td>
</tr>
</tbody>
</table>

Note: Stock composition estimates may not sum to 100% and stock-specific harvest estimates may not sum to the total harvest due to rounding error.

Note: Results for Cook Inlet subregional reporting groups are only reported if the overall contribution to the Cook Inlet group in the stratum or any contributing strata is greater than 5%.
Appendix A10.–Uganik-Kupreanof (statistical areas 253-11, 12, 13, 14, 31, 32, 33, 34, 35), temporal stratum 2 (“Middle”; June 28–July 25; Harvest = 138,281; n = 377), 2016. Regional and subregional (within Chignik, Kodiak, and Cook Inlet) estimates of stock composition (%) and stock-specific harvest. Estimates include median, 90% credibility interval (CI), the probability that the group estimate is equal to zero (P = 0), mean, and standard deviation (SD).

<table>
<thead>
<tr>
<th>Reporting Group</th>
<th>Stock Composition</th>
<th>Stock-specific Harvest</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>90% CI</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Median 5% 95% P = 0</td>
<td>Mean SD</td>
</tr>
<tr>
<td></td>
<td>Median 5% 95% Mean</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>West of Chignik</td>
<td>0.0 0.0 0.0 0.89 0.0 0.1</td>
<td>0 0 36 26 189</td>
</tr>
<tr>
<td>Chignik</td>
<td>0.0 0.0 0.1 0.81 0.0 0.1</td>
<td>0 0 189 40 206</td>
</tr>
<tr>
<td>Kodiak</td>
<td>72.9 68.3 77.2 0.0 72.8 2.7</td>
<td>100,784 94,444 106,764 100,718 3,746</td>
</tr>
<tr>
<td>Cook Inlet</td>
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<td>36,024 30,013 42,371 36,088 3,759</td>
</tr>
<tr>
<td>Prince William Sound</td>
<td>0.1 0.0 2.9 0.37 0.5 1.0</td>
<td>94 0 3,963 690 1,368</td>
</tr>
<tr>
<td>South of Cape Suckling</td>
<td>0.0 0.0 2.3 0.59 0.5 0.9</td>
<td>0 0 3,228 718 1,177</td>
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<tr>
<td></td>
<td></td>
<td>Total 138,281</td>
</tr>
<tr>
<td>Chignik Lake</td>
<td>0.0 0.0 0.0 0.89 0.0 0.1</td>
<td>0 0 37 24 156</td>
</tr>
<tr>
<td>Black Lake</td>
<td>0.0 0.0 0.0 0.90 0.0 0.1</td>
<td>0 0 9 16 134</td>
</tr>
<tr>
<td>Kodiak</td>
<td>0.0 0.0 0.0 0.92 0.0 0.0</td>
<td>0 0 2 7 62</td>
</tr>
<tr>
<td>Upper Station / Akalura</td>
<td>0.0 0.0 0.1 0.81 0.0 0.1</td>
<td>0 0 132 33 179</td>
</tr>
<tr>
<td>Ayakulik / Frazer</td>
<td>9.5 7.0 12.5 0.0 9.6 1.7</td>
<td>13,192 9,661 17,327 13,300 2,339</td>
</tr>
<tr>
<td>Karluk</td>
<td>14.8 11.1 19.0 0.0 14.9 2.4</td>
<td>20,508 15,325 26,299 20,614 3,341</td>
</tr>
<tr>
<td>Uganik</td>
<td>0.2 0.0 1.2 0.23 0.3 0.4</td>
<td>265 0 1,720 483 612</td>
</tr>
<tr>
<td>Northwest Kodiak</td>
<td>1.4 0.4 2.9 0.00 1.5 0.8</td>
<td>1,912 580 4,025 2,056 1,067</td>
</tr>
<tr>
<td>Afognak</td>
<td>0.0 0.0 0.7 0.79 0.1 0.3</td>
<td>0 0 1,023 139 484</td>
</tr>
<tr>
<td>Eastside Kodiak</td>
<td>46.3 41.2 51.5 0.00 46.3 3.1</td>
<td>64,073 56,982 71,201 64,087 4,317</td>
</tr>
<tr>
<td>Saltery</td>
<td>5.4 3.1 8.4 0.00 5.5 1.6</td>
<td>7,512 4,306 11,615 7,671 2,229</td>
</tr>
<tr>
<td>Other Cook Inlet</td>
<td>5.6 2.5 8.9 0.00 5.6 1.9</td>
<td>7,738 3,447 12,242 7,781 2,641</td>
</tr>
<tr>
<td>Susitma</td>
<td>13.2 9.6 17.3 0.00 13.3 2.3</td>
<td>18,257 13,299 23,876 18,378 3,229</td>
</tr>
<tr>
<td>Kenai</td>
<td>1.5 0.2 3.4 0.04 1.6 1.0</td>
<td>2,119 224 4,653 2,258 1,318</td>
</tr>
</tbody>
</table>

*Note:* Stock composition estimates may not sum to 100% and stock-specific harvest estimates may not sum to the total harvest due to rounding error.

*Note:* Results for Cook Inlet subregional reporting groups are only reported if the overall contribution to the Cook Inlet group in the stratum or any contributing strata is greater than 5%.
Appendix A11.—Uganik-Kupreanof (statistical areas 253-11, 12, 13, 14, 31, 32, 33, 34, 35), temporal stratum 3 (“Late”; July 26–August 29; Harvest = 139,612; n = 371), 2016. Regional and subregional (within Chignik, Kodiak, and Cook Inlet) estimates of stock composition (%) and stock-specific harvest. Estimates include median, 90% credibility interval (CI), the probability that the group estimate is equal to zero (P = 0), mean, and standard deviation (SD).

<table>
<thead>
<tr>
<th>Reporting Group</th>
<th>Stock Composition</th>
<th></th>
<th>Stock-specific Harvest</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Median 90% CI</td>
<td></td>
<td>90% CI</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5% 95% P = 0 Mean SD</td>
<td>5% 95% P = 0 Mean SD</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Regional</strong></td>
<td><strong>Subregional</strong></td>
<td><strong>Regional</strong></td>
<td><strong>Subregional</strong></td>
<td><strong>Regional</strong></td>
</tr>
<tr>
<td>West of Chignik</td>
<td>0.0 0.0 0.0 0.90</td>
<td>0.0 0.2</td>
<td>0 0 18 46 337</td>
<td></td>
</tr>
<tr>
<td>Chignik</td>
<td>0.0 0.0 0.1 0.81</td>
<td>0.0 0.2</td>
<td>0 0 159 40 217</td>
<td></td>
</tr>
<tr>
<td>Kodiak</td>
<td>74.1 69.7 78.4 0.0</td>
<td>74.1 2.6</td>
<td>103,514 97,316 109,467 103,470 3,684</td>
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</tr>
<tr>
<td>Cook Inlet</td>
<td>24.3 20.1 28.7 0.0</td>
<td>24.4 2.6</td>
<td>33,956 28,084 40,092 34,011 3,640</td>
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<tr>
<td>Prince William Sound</td>
<td>0.5 0.1 1.5 0.0</td>
<td>0.6 0.4</td>
<td>727 154 2,042 863 617</td>
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</tr>
<tr>
<td>South of Cape Suckling</td>
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<td>0.8 0.5</td>
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<tr>
<td><strong>Chignik</strong></td>
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<td>0.0 0.1</td>
<td>0 0 8 14 109</td>
<td></td>
</tr>
<tr>
<td>Black Lake</td>
<td>0.0 0.0 0.0 0.90</td>
<td>0.0 0.1</td>
<td>0 0 20 26 189</td>
<td></td>
</tr>
<tr>
<td>Chignik Lake</td>
<td>0.0 0.0 0.0 0.90</td>
<td>0.0 0.1</td>
<td>0 0 8 14 109</td>
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</tr>
<tr>
<td><strong>Kodiak</strong></td>
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<td>0.1 0.3</td>
<td>0 0 412 84 411</td>
<td></td>
</tr>
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<td>0.0 0.0 0.0 0.92</td>
<td>0.0 0.0</td>
<td>0 0 2 7 65</td>
<td></td>
</tr>
<tr>
<td>Ayakulik / Frazer</td>
<td>0.0 0.0 0.3 0.87</td>
<td>0.1 0.3</td>
<td>0 0 412 84 411</td>
<td></td>
</tr>
<tr>
<td>Karluk</td>
<td>53.9 49.3 58.4 0.0</td>
<td>53.9 2.8</td>
<td>75,234 68,763 81,540 75,207 3,892</td>
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<tr>
<td>Uganik</td>
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<td>Northwest Kodiak</td>
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<td>0 0 85 28 164</td>
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<td>Afognak</td>
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<td>0.0 0.0</td>
<td>0 0 6 6 50</td>
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<tr>
<td>Eastside Kodiak</td>
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<td>0.7 1.8</td>
<td>0 0 7,155 1,039 2,461</td>
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</tr>
<tr>
<td>Saltery</td>
<td>18.6 14.9 22.7 0.0</td>
<td>18.7 2.4</td>
<td>26,032 20,795 31,724 26,124 3,332</td>
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<tr>
<td><strong>Cook Inlet</strong></td>
<td>0.0 0.0 1.2 0.38</td>
<td>0.3 0.4</td>
<td>159 0 1,730 443 618</td>
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</tr>
<tr>
<td>Other Cook Inlet</td>
<td>2.4 1.1 4.9 0.0</td>
<td>2.6 1.2</td>
<td>3,343 1,504 6,786 3,636 1,700</td>
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</tr>
<tr>
<td>Susitna</td>
<td>3.8 1.6 6.9 0.0</td>
<td>4.0 1.7</td>
<td>5,318 2,257 9,702 5,561 2,304</td>
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</tr>
<tr>
<td>Kenai</td>
<td>17.4 13.8 21.4 0.0</td>
<td>17.5 2.3</td>
<td>24,262 19,226 29,884 24,371 3,234</td>
<td></td>
</tr>
<tr>
<td>Kasilof</td>
<td>0.1 0.0 1.2 0.38</td>
<td>0.3 0.4</td>
<td>159 0 1,730 443 618</td>
<td></td>
</tr>
</tbody>
</table>

Note: Stock composition estimates may not sum to 100% and stock-specific harvest estimates may not sum to the total harvest due to rounding error.

Note: Results for Cook Inlet subregional reporting groups are only reported if the overall contribution to the Cook Inlet group in the stratum or any contributing strata is greater than 5%. 
Appendix A12—Uganik-Kupreanof (statistical areas 253-11, 12, 13, 14, 31, 32, 33, 34, 35), 2016, all strata. Annual regional and subregional (within Chignik, Kodiak, and Cook Inlet) estimates of stock composition (%) and stock-specific harvest. Estimates include median, 90% credibility interval (CI), the probability that the group estimate is equal to zero (P = 0), mean, and standard deviation (SD).

<table>
<thead>
<tr>
<th>Reporting Group</th>
<th>Stock Composition</th>
<th>Stock-specific Harvest</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>90% CI</td>
<td>90% CI</td>
</tr>
<tr>
<td></td>
<td>Median</td>
<td>5%</td>
</tr>
<tr>
<td>West of Chignik</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chignik</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Kodiak</td>
<td>0.1</td>
<td>0.0</td>
</tr>
<tr>
<td>Cook Inlet</td>
<td>76.5</td>
<td>73.8</td>
</tr>
<tr>
<td>Prince William Sound</td>
<td>0.7</td>
<td>0.3</td>
</tr>
<tr>
<td>South of Cape Suckling</td>
<td>0.5</td>
<td>0.1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Regional</th>
<th>Subregional</th>
<th>Reporting Group</th>
<th>Stock Composition</th>
<th>Stock-specific Harvest</th>
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<td></td>
<td>90% CI</td>
<td>90% CI</td>
<td>Median</td>
<td>5%</td>
</tr>
<tr>
<td>West of Chignik</td>
<td>Black Lake</td>
<td></td>
<td>0.1</td>
<td>0.0</td>
</tr>
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<td>Chignik Lake</td>
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<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Kodiak</td>
<td>Upper Station / Akalura</td>
<td></td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td></td>
<td>Ayakulik / Frazer</td>
<td></td>
<td>0.4</td>
<td>0.1</td>
</tr>
<tr>
<td></td>
<td>Karluk</td>
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<td>25.2</td>
</tr>
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<td>Uganik</td>
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<td>18.9</td>
<td>17.1</td>
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<td>Northwest Kodiak</td>
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<td>0.4</td>
</tr>
<tr>
<td></td>
<td>Afognak</td>
<td></td>
<td>1.1</td>
<td>0.6</td>
</tr>
<tr>
<td></td>
<td>Eastside Kodiak</td>
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<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td></td>
<td>Sality</td>
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<td>24.6</td>
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<td>Other Cook Inlet</td>
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<td>4.1</td>
<td>2.9</td>
</tr>
<tr>
<td></td>
<td>Susitna</td>
<td></td>
<td>3.9</td>
<td>2.3</td>
</tr>
<tr>
<td></td>
<td>Kenai</td>
<td></td>
<td>12.6</td>
<td>10.5</td>
</tr>
<tr>
<td></td>
<td>Kasilof</td>
<td></td>
<td>1.1</td>
<td>0.4</td>
</tr>
</tbody>
</table>

**Note:** Stock composition estimates may not sum to 100% and stock-specific harvest estimates may not sum to the total harvest due to rounding error.

**Note:** Results for Cook Inlet subregional reporting groups are only reported if the overall contribution to the Cook Inlet group in the stratum or any contributing strata is greater than 5%.
Appendix A13.—Uyak (statistical areas 254-10, 20, 21, 30, 31, 40, 41), temporal stratum 1 (“Early”; June 1–27; Harvest = 102,346; n = 378), 2014. Regional and subregional (within Chignik, Kodiak, and Cook Inlet) estimates of stock composition (%) and stock-specific harvest. Estimates include median, 90% credibility interval (CI), the probability that the group estimate is equal to zero (P = 0), mean, and standard deviation (SD).

<table>
<thead>
<tr>
<th>Reporting Group</th>
<th>Stock Composition</th>
<th></th>
<th>Stock-specific Harvest</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
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<td>90% CI</td>
<td>P = 0</td>
<td>Mean</td>
</tr>
<tr>
<td>Regional</td>
<td>Subregional</td>
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<td></td>
<td></td>
</tr>
<tr>
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<td>1.0</td>
<td>3.6</td>
<td>0.00</td>
</tr>
<tr>
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<td>0.4</td>
<td>3.0</td>
<td>0.00</td>
</tr>
<tr>
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<td>89.6</td>
<td>94.6</td>
<td>0.00</td>
</tr>
<tr>
<td>Cook Inlet</td>
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<td>0.8</td>
<td>3.4</td>
<td>0.00</td>
</tr>
<tr>
<td>Prince William Sound</td>
<td>2.0</td>
<td>1.0</td>
<td>3.4</td>
<td>0.00</td>
</tr>
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<td>Black Lake</td>
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<td>0.4</td>
<td>2.9</td>
</tr>
<tr>
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<td>Chignik Lake</td>
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<td>0.0</td>
<td>0.4</td>
</tr>
<tr>
<td>Kodiak</td>
<td>Upper Station / Akalura</td>
<td>1.5</td>
<td>0.5</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>Ayakulik / Frazer</td>
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<td>14.7</td>
<td>22.5</td>
</tr>
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<td></td>
<td>Karluk</td>
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<td>18.0</td>
<td>14.2</td>
<td>22.2</td>
</tr>
<tr>
<td></td>
<td>Northwest Kodiak</td>
<td>5.9</td>
<td>3.6</td>
<td>8.7</td>
</tr>
<tr>
<td></td>
<td>Afognak</td>
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<td>0.2</td>
<td>2.1</td>
</tr>
<tr>
<td></td>
<td>Eastside Kodiak</td>
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<td>0.0</td>
<td>0.6</td>
</tr>
<tr>
<td></td>
<td>Saltery</td>
<td>16.1</td>
<td>12.5</td>
<td>20.0</td>
</tr>
<tr>
<td>Cook Inlet</td>
<td>Other Cook Inlet</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td></td>
<td>Susitna</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td></td>
<td>Kenai</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td></td>
<td>Kasilof</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
</tbody>
</table>

Note: Stock composition estimates may not sum to 100% and stock-specific harvest estimates may not sum to the total harvest due to rounding error.

Note: Results for Cook Inlet subregional reporting groups are only reported if the overall contribution to the Cook Inlet group in the stratum or any contributing strata is greater than 5%.
Appendix A14–Uyak (statistical areas 254-10, 20, 21, 30, 31, 40, 41), temporal stratum 2 (“Middle”; June 28–July 25; Harvest = 126,840; \( n = 380 \)), 2014. Regional and subregional (within Chignik, Kodiak, and Cook Inlet) estimates of stock composition (%) and stock-specific harvest. Estimates include median, 90% credibility interval (CI), the probability that the group estimate is equal to zero (\( P = 0 \)), mean, and standard deviation (SD).

<table>
<thead>
<tr>
<th>Reporting Group</th>
<th>Stock Composition</th>
<th>Stock-specific Harvest</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Median 90% CI P = 0 Mean SD</td>
<td>Median 90% CI P = 0 Mean SD</td>
</tr>
<tr>
<td>West of Chignik</td>
<td>0.0 0.0 0.0 0.83 0.0 0.3</td>
<td>0 0 46 50</td>
</tr>
<tr>
<td>Chignik</td>
<td>1.1 0.2 2.7 0.02 1.2 0.8</td>
<td>1,385 194 3,437 1,544 1,006</td>
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<tr>
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<td>90.4 87.2 93.1 0.00 90.3 1.8</td>
<td>114,686 110,653 118,111 114,572 2,272</td>
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<tr>
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</tr>
<tr>
<td>Prince William Sound</td>
<td>2.1 0.6 4.2 0.00 2.2 1.1</td>
<td>2,689 755 5,364 2,811 1,437</td>
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<tr>
<td>South of Cape Suckling</td>
<td>0.0 0.0 3.2 0.64 0.6 1.2</td>
<td>0 0 4,094 763 1,478</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>126,840</strong></td>
<td><strong>126,840</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Reporting Group</th>
<th>Stock Composition</th>
<th>Stock-specific Harvest</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Median 90% CI P = 0 Mean SD</td>
<td>Median 90% CI P = 0 Mean SD</td>
</tr>
<tr>
<td>Chignik</td>
<td>0.0 0.0 1.3 0.68 0.2 0.5</td>
<td>0 0 1,706 272 624</td>
</tr>
<tr>
<td>Chignik Lake</td>
<td>0.9 0.0 2.6 0.21 1.0 0.9</td>
<td>1,138 0 3,349 1,272 1,122</td>
</tr>
<tr>
<td>Kodiak</td>
<td>0.0 0.0 0.8 0.77 0.1 0.3</td>
<td>0 0 1,017 127 422</td>
</tr>
<tr>
<td>Upper Station / Akalura</td>
<td>5.4 3.3 7.9 0.00 5.5 1.4</td>
<td>6,804 4,215 10,066 6,926 1,790</td>
</tr>
<tr>
<td>Ayakulik / Frazer</td>
<td>10.1 7.1 13.5 0.00 10.2 1.9</td>
<td>12,800 9,042 17,114 12,896 2,456</td>
</tr>
<tr>
<td>Karluk</td>
<td>1.8 0.4 4.0 0.00 2.0 1.1</td>
<td>2,305 545 5,131 2,501 1,420</td>
</tr>
<tr>
<td>Uganik</td>
<td>0.0 0.0 1.9 0.46 0.3 0.7</td>
<td>0 0 2,361 389 856</td>
</tr>
<tr>
<td>Northwest Kodiak</td>
<td>0.2 0.0 1.2 0.20 0.3 0.4</td>
<td>256 0 1,488 431 520</td>
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<tr>
<td>Afognak</td>
<td>0.2 0.0 1.0 0.13 0.3 0.5</td>
<td>0 0 1,222 370 589</td>
</tr>
<tr>
<td>Eastside Kodiak</td>
<td>71.7 67.3 76.0 0.00 71.7 2.6</td>
<td>90,992 85,348 96,349 90,933 3,348</td>
</tr>
<tr>
<td>Saltery</td>
<td>71.7 67.3 76.0 0.00 71.7 2.6</td>
<td>90,992 85,348 96,349 90,933 3,348</td>
</tr>
<tr>
<td>Cook Inlet</td>
<td>0.0 0.0 0.0 0.92 0.0 0.1</td>
<td>0 0 5 12 100</td>
</tr>
<tr>
<td>Susitna</td>
<td>0.9 0.0 2.5 0.24 0.9 0.8</td>
<td>1,081 0 3,148 1,191 1,064</td>
</tr>
<tr>
<td>Kenai</td>
<td>2.3 0.7 4.0 0.04 2.3 1.0</td>
<td>2,866 948 5,096 2,927 1,274</td>
</tr>
<tr>
<td>Kasilof</td>
<td>2.2 1.0 4.0 0.00 2.3 0.9</td>
<td>2,840 1,312 5,076 2,970 1,157</td>
</tr>
</tbody>
</table>

*Note:* Stock composition estimates may not sum to 100% and stock-specific harvest estimates may not sum to the total harvest due to rounding error.

*Note:* Results for Cook Inlet subregional reporting groups are only reported if the overall contribution to the Cook Inlet group in the stratum or any contributing strata is greater than 5%.
Appendix A15.–Uyak (statistical areas 254-10, 20, 21, 30, 31, 40, 41), temporal stratum 3 (“Late”; July 26–August 29; Harvest = 155,658; \( n = 657 \)), 2014. Regional and subregional (within Chignik, Kodiak, and Cook Inlet) estimates of stock composition (%) and stock-specific harvest. Estimates include median, 90% credibility interval (CI), the probability that the group estimate is equal to zero (\( P = 0 \)), mean, and standard deviation (SD).

<table>
<thead>
<tr>
<th>Reporting Group</th>
<th>Subregional</th>
<th>Stock Composition</th>
<th>Stock-specific Harvest</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>90% CI</td>
<td>90% CI</td>
</tr>
<tr>
<td>West of Chignik</td>
<td></td>
<td>Median</td>
<td>5%</td>
</tr>
<tr>
<td>Chignik</td>
<td></td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Kodiak</td>
<td></td>
<td>98.6</td>
<td>97.5</td>
</tr>
<tr>
<td>Cook Inlet</td>
<td></td>
<td>0.7</td>
<td>0.1</td>
</tr>
<tr>
<td>Prince William Sound</td>
<td></td>
<td>0.4</td>
<td>0.1</td>
</tr>
<tr>
<td>South of Cape Suckling</td>
<td></td>
<td>0.1</td>
<td>0.0</td>
</tr>
</tbody>
</table>

<p>| | | | | | | | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Chignik</td>
<td>Black Lake</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.85</td>
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<td>0.0</td>
<td>13</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Chignik Lake</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.85</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>24</td>
<td>11</td>
</tr>
<tr>
<td>Kodiak</td>
<td>Upper Station / Akalura</td>
<td>7.5</td>
<td>5.4</td>
<td>9.9</td>
<td>0.00</td>
<td>7.5</td>
<td>1.4</td>
<td>11,664</td>
<td>8,359</td>
<td>15,415</td>
<td>11,750</td>
<td>2,152</td>
</tr>
<tr>
<td></td>
<td>Ayakulik / Frazer</td>
<td>2.3</td>
<td>1.1</td>
<td>4.0</td>
<td>0.00</td>
<td>2.4</td>
<td>0.9</td>
<td>3,581</td>
<td>1,693</td>
<td>6,294</td>
<td>3,734</td>
<td>1,415</td>
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<tr>
<td></td>
<td>Karluk</td>
<td>71.5</td>
<td>68.0</td>
<td>74.8</td>
<td>0.00</td>
<td>71.5</td>
<td>2.1</td>
<td>111,318</td>
<td>105,822</td>
<td>116,474</td>
<td>111,257</td>
<td>3,236</td>
</tr>
<tr>
<td></td>
<td>Uganik</td>
<td>0.0</td>
<td>0.0</td>
<td>1.0</td>
<td>0.43</td>
<td>0.2</td>
<td>0.4</td>
<td>13</td>
<td>0</td>
<td>1,538</td>
<td>361</td>
<td>555</td>
</tr>
<tr>
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<td>Northwest Kodiak</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.85</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>17</td>
<td>8</td>
</tr>
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<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.86</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>12</td>
<td>5</td>
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<td>Eastside Kodiak</td>
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<td>0.1</td>
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<td>0.3</td>
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<td>83</td>
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<td>16.6</td>
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<td>22,265</td>
<td>29,469</td>
<td>25,813</td>
<td>2,186</td>
</tr>
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<td>Other Cook Inlet</td>
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<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td></td>
<td>Susitna</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
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<td>*</td>
<td>*</td>
</tr>
<tr>
<td></td>
<td>Kenai</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
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<td>*</td>
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</tr>
<tr>
<td></td>
<td>Kasilof</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
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</tr>
</tbody>
</table>

*Note: Stock composition estimates may not sum to 100% and stock-specific harvest estimates may not sum to the total harvest due to rounding error.*

*Note: Results for Cook Inlet subregional reporting groups are only reported if the overall contribution to the Cook Inlet group in the stratum or any contributing strata is greater than 5%.*
Appendix A16.–Uyak (statistical areas 254-10, 20, 21, 30, 31, 40, 41), 2014, all strata. Annual regional and subregional (within Chignik, Kodiak, and Cook Inlet) estimates of stock composition (%) and stock-specific harvest. Estimates include median, 90% credibility interval (CI), the probability that the group estimate is equal to zero (P = 0), mean, and standard deviation (SD).

<table>
<thead>
<tr>
<th>Reporting Group</th>
<th>Region</th>
<th>90% CI</th>
<th>90% CI</th>
<th>90% CI</th>
<th>90% CI</th>
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</thead>
<tbody>
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<td>5%</td>
<td>95%</td>
<td>P = 0</td>
<td>Mean</td>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>West of Chignik</td>
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<td>1.0</td>
<td>0.00</td>
<td>0.6</td>
</tr>
<tr>
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<td>1.4</td>
<td>0.00</td>
<td>0.8</td>
</tr>
<tr>
<td>Kodiak</td>
<td>94.2</td>
<td>92.9</td>
<td>95.3</td>
<td>0.00</td>
<td>94.2</td>
</tr>
<tr>
<td>Cook Inlet</td>
<td>2.7</td>
<td>1.9</td>
<td>3.6</td>
<td>0.00</td>
<td>2.7</td>
</tr>
<tr>
<td>Prince William Sound</td>
<td>1.4</td>
<td>0.8</td>
<td>2.3</td>
<td>0.00</td>
<td>1.5</td>
</tr>
<tr>
<td>South of Cape Suckling</td>
<td>0.1</td>
<td>0.0</td>
<td>1.2</td>
<td>0.01</td>
<td>0.3</td>
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<tr>
<th>Reporting Group</th>
<th>Subregion</th>
<th>Stock Composition</th>
<th>Stock-specific Harvest</th>
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<td>90% CI</td>
<td>90% CI</td>
</tr>
<tr>
<td></td>
<td></td>
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</tr>
<tr>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chignik</td>
<td>Black Lake</td>
<td>0.4</td>
<td>0.1</td>
</tr>
<tr>
<td>Chignik Lake</td>
<td></td>
<td>0.3</td>
<td>0.0</td>
</tr>
<tr>
<td></td>
<td></td>
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</tr>
<tr>
<td>Kodiak</td>
<td>Upper Station / Akalura</td>
<td>3.5</td>
<td>2.6</td>
</tr>
<tr>
<td></td>
<td>Ayakulik / Frazer</td>
<td>7.7</td>
<td>6.3</td>
</tr>
<tr>
<td></td>
<td>Karluk</td>
<td>40.4</td>
<td>38.3</td>
</tr>
<tr>
<td></td>
<td>Uganik</td>
<td>5.5</td>
<td>4.4</td>
</tr>
<tr>
<td></td>
<td>Northwest Kodiak</td>
<td>1.7</td>
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</tr>
<tr>
<td></td>
<td>Afognak</td>
<td>0.3</td>
<td>0.1</td>
</tr>
<tr>
<td></td>
<td>Eastside Kodiak</td>
<td>0.2</td>
<td>0.1</td>
</tr>
<tr>
<td></td>
<td>Sallary</td>
<td>34.6</td>
<td>32.6</td>
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<tr>
<td></td>
<td>Other Cook Inlet</td>
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</tr>
<tr>
<td></td>
<td>Susitna</td>
<td>0.3</td>
<td>0.0</td>
</tr>
<tr>
<td></td>
<td>Kenai</td>
<td>1.1</td>
<td>0.5</td>
</tr>
<tr>
<td></td>
<td>Kasilof</td>
<td>1.1</td>
<td>0.6</td>
</tr>
</tbody>
</table>

**Note:** Stock composition estimates may not sum to 100% and stock-specific harvest estimates may not sum to the total harvest due to rounding error.

**Note:** Results for Cook Inlet subregional reporting groups are only reported if the overall contribution to the Cook Inlet group in the stratum or any contributing strata is greater than 5%. 
Appendix A17.—Uyak (statistical areas 254-10, 20, 21, 30, 31, 40, 41), temporal stratum 1 (“Early”; June 1–July 3; Harvest = 49,515; \( n = 379 \)), 2015. Regional and subregional (within Chignik, Kodiak, and Cook Inlet) estimates of stock composition (%) and stock-specific harvest. Estimates include median, 90% credibility interval (CI), the probability that the group estimate is equal to zero (\( P = 0 \)), mean, and standard deviation (SD).

<table>
<thead>
<tr>
<th>Reporting Group</th>
<th>Stock Composition</th>
<th>Stock-specific Harvest</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>90% CI</td>
<td>90% CI</td>
</tr>
<tr>
<td></td>
<td>Median 5% 95% P = 0 Mean SD</td>
<td>Median 5% 95% Mean SD</td>
</tr>
<tr>
<td>West of Chignik</td>
<td>0.0 0.0 0.0 0.84 0.0 0.1</td>
<td>0 0 13 6 40</td>
</tr>
<tr>
<td>Chignik</td>
<td>4.4 2.6 6.7 0.00 4.5 1.3</td>
<td>2,171 1,291 3,319 2,220 620</td>
</tr>
<tr>
<td>Kodiak</td>
<td>64.3 59.5 68.9 0.00 64.2 2.9</td>
<td>31,827 29,455 34,111 31,813 1,414</td>
</tr>
<tr>
<td>Cook Inlet</td>
<td>17.2 13.5 21.2 0.00 17.2 2.4</td>
<td>8,492 6,667 10,507 8,526 1,170</td>
</tr>
<tr>
<td>Prince William Sound</td>
<td>13.3 8.4 17.3 0.00 13.1 2.7</td>
<td>6,565 4,155 8,590 6,503 1,336</td>
</tr>
<tr>
<td>South of Cape Suckling</td>
<td>0.0 0.0 5.8 0.68 0.9 2.1</td>
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<tr>
<td></td>
<td>Total</td>
<td>49,515</td>
</tr>
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<td>Black Lake</td>
<td>4.4 2.6 6.7 0.00 4.5 1.2</td>
</tr>
<tr>
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<td>Chignik Lake</td>
<td>0.0 0.0 0.0 0.89 0.0 0.1</td>
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<tr>
<td>Kodiak</td>
<td>Upper Station / Akalura</td>
<td>3.8 1.9 6.3 0.00 3.9 1.3</td>
</tr>
<tr>
<td></td>
<td>Ayakulik / Frazer</td>
<td>27.7 23.1 32.6 0.00 27.8 2.9</td>
</tr>
<tr>
<td></td>
<td>Karluk</td>
<td>20.0 16.1 24.2 0.00 20.0 2.5</td>
</tr>
<tr>
<td></td>
<td>Uganik</td>
<td>6.1 3.6 9.2 0.00 6.2 1.7</td>
</tr>
<tr>
<td></td>
<td>Northwest Kodiak</td>
<td>1.9 0.9 3.5 0.00 2.0 0.8</td>
</tr>
<tr>
<td></td>
<td>Afognak</td>
<td>0.0 0.0 1.1 0.81 0.1 0.5</td>
</tr>
<tr>
<td></td>
<td>Eastside Kodiak</td>
<td>4.0 1.9 6.8 0.00 4.1 1.5</td>
</tr>
<tr>
<td>Cook Inlet</td>
<td>Other Cook Inlet</td>
<td>11.1 7.9 14.8 0.00 11.2 2.1</td>
</tr>
<tr>
<td></td>
<td>Susitna</td>
<td>0.0 0.0 0.0 0.95 0.0 0.0</td>
</tr>
<tr>
<td></td>
<td>Kenai</td>
<td>2.6 1.4 4.1 0.00 2.6 0.8</td>
</tr>
<tr>
<td></td>
<td>Kaslof</td>
<td>3.3 1.7 5.4 0.00 3.4 1.1</td>
</tr>
</tbody>
</table>

*Note:* Stock composition estimates may not sum to 100% and stock-specific harvest estimates may not sum to the total harvest due to rounding error.

*Note:* Results for Cook Inlet subregional reporting groups are only reported if the overall contribution to the Cook Inlet group in the stratum or any contributing strata is greater than 5%.
Appendix A18.–Uyak (statistical areas 254-10, 20, 21, 30, 31, 40, 41), temporal stratum 2 (“Middle”; July 4–August 1; Harvest = 174,009; \( n = 377 \)), 2015. Regional and subregional (within Chignik, Kodiak, and Cook Inlet) estimates of stock composition (%) and stock-specific harvest. Estimates include median, 90% credibility interval (CI), the probability that the group estimate is equal to zero (\( P = 0 \)), mean, and standard deviation (SD).

<table>
<thead>
<tr>
<th>Reporting Group</th>
<th>Stock Composition</th>
<th>Stock-specific Harvest</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>90% CI</td>
<td>90% CI</td>
</tr>
<tr>
<td></td>
<td>Median 5% 95% P = 0 Mean SD</td>
<td>Median 5% 95% Mean SD</td>
</tr>
<tr>
<td>West of Chignik</td>
<td>0.0 0.0 0.0 0.92 0.0 0.0</td>
<td>0 0 3 8 84</td>
</tr>
<tr>
<td>Chignik</td>
<td>0.2 0.0 1.2 0.18 0.4 0.4</td>
<td>361 0 2,151 620 755</td>
</tr>
<tr>
<td>Kodiak</td>
<td>40.2 35.4 45.1 0.00 40.2 2.9</td>
<td>69,960 61,635 78,453 69,988 5,106</td>
</tr>
<tr>
<td>Cook Inlet</td>
<td>54.0 49.0 58.9 0.00 54.0 3.0</td>
<td>93,923 85,210 102,564 93,909 5,273</td>
</tr>
<tr>
<td>Prince William Sound</td>
<td>4.5 0.9 8.0 0.00 4.5 2.1</td>
<td>7,875 1,535 13,891 7,815 3,681</td>
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<tr>
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<td>520 36 8,692 1,669 2,893</td>
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</table>

Note: Stock composition estimates may not sum to 100% and stock-specific harvest estimates may not sum to the total harvest due to rounding error.

Note: Results for Cook Inlet subregional reporting groups are only reported if the overall contribution to the Cook Inlet group in the stratum or any contributing strata is greater than 5%.
Appendix A19.–Uyak (statistical areas 254-10, 20, 21, 30, 31, 40, 41), temporal stratum 3 (“Late”; August 2–29; Harvest = 126,126; n = 373), 2015. Regional and subregional (within Chignik, Kodiak, and Cook Inlet) estimates of stock composition (%) and stock-specific harvest. Estimates include median, 90% credibility interval (CI), the probability that the group estimate is equal to zero (P = 0), mean, and standard deviation (SD).

<table>
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<th>Stock Composition</th>
<th>Stock-specific Harvest</th>
</tr>
</thead>
<tbody>
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</tr>
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<tr>
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<tr>
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<td>63.3</td>
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<tr>
<td>Cook Inlet</td>
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<td>0.0</td>
</tr>
<tr>
<td></td>
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<th>Stock-specific Harvest</th>
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</tr>
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</tr>
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<td>Chignik Lake</td>
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<tr>
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<tr>
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</tr>
<tr>
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</tr>
<tr>
<td>Ayakulik / Frazer</td>
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<td>0.0</td>
</tr>
<tr>
<td>Karluk</td>
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</tr>
<tr>
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<td></td>
</tr>
<tr>
<td>Uganik</td>
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</tr>
<tr>
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<td></td>
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</tr>
<tr>
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<td></td>
<td></td>
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<tr>
<td>Eastside Kodiak</td>
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</tr>
<tr>
<td>Saltery</td>
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<td>0.0</td>
</tr>
<tr>
<td></td>
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</tr>
<tr>
<td></td>
<td>Saltery</td>
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<tr>
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<tr>
<td></td>
<td>Cook Inlet</td>
<td>Other Cook Inlet</td>
</tr>
<tr>
<td></td>
<td>Susitna</td>
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</tr>
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<td>23.4</td>
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<td>Kasilof</td>
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Note: Stock composition estimates may not sum to 100% and stock-specific harvest estimates may not sum to the total harvest due to rounding error.

Note: Results for Cook Inlet subregional reporting groups are only reported if the overall contribution to the Cook Inlet group in the stratum or any contributing strata is greater than 5%.
Appendix A20.–Uyak (statistical areas 254–10, 20, 21, 30, 31, 40, 41), 2015, all strata. Annual regional and subregional (within Chignik, Kodiak, and Cook Inlet) estimates of stock composition (%) and stock-specific harvest. Estimates include median, 90% credibility interval (CI), the probability that the group estimate is equal to zero (P = 0), mean, and standard deviation (SD).

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<tr>
<th>Reporting Group</th>
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<th>Stock-specific Harvest</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>90% CI</td>
<td>90% CI</td>
</tr>
<tr>
<td></td>
<td>Median</td>
<td>5%</td>
</tr>
<tr>
<td>Regional</td>
<td>Subregional</td>
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<td>0.0</td>
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<tr>
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<td>0.4</td>
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<tr>
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</tr>
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<td>0.0</td>
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<tr>
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</tr>
<tr>
<td></td>
<td>Chignik Lake</td>
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<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kodiak</td>
<td>Upper Station / Akalura</td>
<td>0.0</td>
</tr>
<tr>
<td></td>
<td>Ayakulik / Frazer</td>
<td>0.6</td>
</tr>
<tr>
<td></td>
<td>Karluk</td>
<td>21.1</td>
</tr>
<tr>
<td></td>
<td>Ugani X</td>
<td>4.5</td>
</tr>
<tr>
<td></td>
<td>Northwe X</td>
<td>4.5</td>
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<td></td>
<td>Afognak</td>
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</tr>
<tr>
<td></td>
<td>Eastside Kodiak</td>
<td>0.0</td>
</tr>
<tr>
<td></td>
<td>Saltery</td>
<td>26.0</td>
</tr>
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<td>Other Cook Inlet</td>
<td>5.7</td>
</tr>
<tr>
<td></td>
<td>Susina</td>
<td>7.2</td>
</tr>
<tr>
<td></td>
<td>Kenai</td>
<td>24.9</td>
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<tr>
<td></td>
<td>Kasifol</td>
<td>2.7</td>
</tr>
</tbody>
</table>

*Note:* Stock composition estimates may not sum to 100% and stock-specific harvest estimates may not sum to the total harvest due to rounding error.

*Note:* Results for Cook Inlet subregional reporting groups are only reported if the overall contribution to the Cook Inlet group in the stratum or any contributing strata is greater than 5%.
Appendix A21—Uyak (statistical areas 254-10, 20, 21, 30, 31, 40, 41), temporal stratum 1 (“Early”; June 1–27; Harvest = 37,238; \( n = 377 \)), 2016. Regional and subregional (within Chignik, Kodiak, and Cook Inlet) estimates of stock composition (%) and stock-specific harvest. Estimates include median, 90% credibility interval (CI), the probability that the group estimate is equal to zero (\( P = 0 \)), mean, and standard deviation (SD).

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<th>Stock-specific Harvest</th>
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<tbody>
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<td>Chignik</td>
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<td></td>
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<td></td>
<td></td>
<td></td>
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</tr>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper Station / Akalura</td>
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<td>0.0</td>
<td>0.90</td>
<td>0.0</td>
<td>0.1</td>
<td>0.0</td>
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<td>20,989</td>
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<td>165</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Cook Inlet</td>
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<td>6.8</td>
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*Note: Stock composition estimates may not sum to 100% and stock-specific harvest estimates may not sum to the total harvest due to rounding error.*

*Note: Results for Cook Inlet subregional reporting groups are only reported if the overall contribution to the Cook Inlet group in the stratum or any contributing strata is greater than 5%.*
Appendix A2.—Uyak (statistical areas 254–10, 20, 21, 30, 31, 40, 41), temporal stratum 2 (“Middle”; June 28–July 25; Harvest = 69,803; n = 378), 2016. Regional and subregional (within Chignik, Kodiak, and Cook Inlet) estimates of stock composition (%) and stock-specific harvest. Estimates include median, 90% credibility interval (CI), the probability that the group estimate is equal to zero (P = 0), mean, and standard deviation (SD).

<table>
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<tr>
<th>Reporting Group</th>
<th>Stock Composition</th>
<th>Stock-specific Harvest</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Median</td>
<td>90% CI</td>
</tr>
<tr>
<td></td>
<td>5%</td>
<td>95%</td>
</tr>
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<tr>
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<td>0.0</td>
</tr>
<tr>
<td>Kodiak</td>
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<td>76.9</td>
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<tr>
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<td>Prince William Sound</td>
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<td>1.2</td>
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<td>0.0</td>
</tr>
<tr>
<td>Total</td>
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<td>0.0</td>
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<tr>
<td>Ayakulik / Frazer</td>
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<td>2.2</td>
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<td>Karluk</td>
<td>7.8</td>
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<tr>
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<td>0.0</td>
</tr>
<tr>
<td>Afognak</td>
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<td>0.0</td>
</tr>
<tr>
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<td>0.0</td>
</tr>
<tr>
<td>Saltery</td>
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<td>53.1</td>
</tr>
<tr>
<td>Cook Inlet</td>
<td>Other Cook Inlet</td>
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<td>2.0</td>
</tr>
<tr>
<td>Kenai</td>
<td>9.3</td>
<td>6.4</td>
</tr>
<tr>
<td>Kasilof</td>
<td>1.6</td>
<td>0.5</td>
</tr>
</tbody>
</table>

Note: Stock composition estimates may not sum to 100% and stock-specific harvest estimates may not sum to the total harvest due to rounding error.

Note: Results for Cook Inlet subregional reporting groups are only reported if the overall contribution to the Cook Inlet group in the stratum or any contributing strata is greater than 5%.
Appendix A23—Uyak (statistical areas 254-10, 20, 21, 30, 31, 40, 41), temporal stratum 3 ("Late"; July 26–August 29; Harvest = 126,837; n = 377), 2016. Regional and subregional (within Chignik, Kodiak, and Cook Inlet) estimates of stock composition (%) and stock-specific harvest. Estimates include median, 90% credibility interval (CI), the probability that the group estimate is equal to zero (P = 0), mean, and standard deviation (SD).

<table>
<thead>
<tr>
<th>Reporting Group</th>
<th>Stock Composition</th>
<th>Stock-specific Harvest</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>90% CI</td>
<td>90% CI</td>
</tr>
<tr>
<td></td>
<td>Median</td>
<td>5%</td>
</tr>
<tr>
<td>West of Chignik</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Chignik</td>
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<td>0.0</td>
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<tr>
<td>Kodiak</td>
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<td>86.5</td>
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<tr>
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<td>6.7</td>
</tr>
<tr>
<td>Prince William Sound</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>South of Cape Suckling</td>
<td>0.6</td>
<td>0.1</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td></td>
</tr>
</tbody>
</table>

| Chignik         | Black Lake      | 0.0 | 0.0 | 0.0 | 0.92 | 0.0 | 0.0 | 0       | 0   | 2    | 5    | 47  |
|                 | Chignik Lake    | 0.0 | 0.0 | 0.0 | 0.91 | 0.0 | 0.1 | 0       | 0   | 4    | 9    | 80  |
| Kodiak          | Upper Station / Akalura | 1.5 | 0.0 | 3.1 | 0.06 | 1.6 | 0.9 | 1,890   | 0   | 3,995| 1,974| 1,147 |
|                 | Ayakulik / Frazer| 2.1 | 0.5 | 4.3 | 0.02 | 2.2 | 1.2 | 2,667   | 585 | 5,476| 2,802| 1,490 |
|                 | Karluk          | 62.3| 57.6| 66.8| 0.00 | 62.3| 2.8 | 79,005  | 73,095| 84,736| 78,971| 3,534 |
|                 | Uganik          | 0.0 | 0.0 | 0.5 | 0.42 | 0.1 | 0.2 | 0       | 0   | 574  | 94   | 274 |
|                 | Northwest Kodiak| 0.0 | 0.0 | 0.0 | 0.92 | 0.0 | 0.0 | 0       | 0   | 1    | 4    | 40  |
|                 | Afognak         | 0.0 | 0.0 | 0.0 | 0.92 | 0.0 | 0.0 | 0       | 0   | 3    | 6    | 60  |
|                 | Eastside Kodiak | 0.0 | 0.0 | 0.0 | 0.91 | 0.0 | 0.1 | 0       | 0   | 6    | 16   | 144 |
|                 | Saltery         | 23.3| 19.6| 27.2| 0.00 | 23.4| 2.3 | 29,558  | 24,883| 34,563| 29,616| 2,950 |
| Cook Inlet      | Other Cook Inlet| 0.2 | 0.0 | 1.0 | 0.00 | 0.3 | 0.4 | 298     | 25  | 1,320| 436  | 451 |
|                 | Susitna         | 1.8 | 0.4 | 3.7 | 0.01 | 1.9 | 1.0 | 2,334   | 569 | 4,731| 2,454| 1,269 |
|                 | Kenai           | 7.0 | 4.6 | 9.9 | 0.00 | 7.1 | 1.6 | 8,874   | 5,815| 12,593| 8,994| 2,065 |
|                 | Kasilof         | 0.0 | 0.0 | 0.1 | 0.90 | 0.0 | 0.2 | 0       | 0   | 75   | 33   | 191 |

Note: Stock composition estimates may not sum to 100% and stock-specific harvest estimates may not sum to the total harvest due to rounding error.

Note: Results for Cook Inlet subregional reporting groups are only reported if the overall contribution to the Cook Inlet group in the stratum or any contributing strata is greater than 5%.
Appendix A-24.–Uyak (statistical areas 254-10, 20, 21, 30, 31, 40, 41), 2016, all strata. Annual regional and subregional (within Chignik, Kodiak, and Cook Inlet) estimates of stock composition (%) and stock-specific harvest. Estimates include median, 90% credibility interval (CI), the probability that the group estimate is equal to zero (P = 0), mean, and standard deviation (SD).

<table>
<thead>
<tr>
<th>Reporting Group</th>
<th>Stock Composition</th>
<th>Stock-specific Harvest</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>90% CI</td>
<td>90% CI</td>
</tr>
<tr>
<td></td>
<td>Median 5% 95% P = 0 Mean SD</td>
<td>Median 5% 95% Mean SD</td>
</tr>
<tr>
<td>West of Chignik</td>
<td>0.0 0.0 0.8 0.38 0.2 0.3</td>
<td>57 0 1,905 468 684</td>
</tr>
<tr>
<td>Chignik</td>
<td>0.0 0.0 0.1 0.50 0.0 0.0</td>
<td>0 0 179 32 113</td>
</tr>
<tr>
<td>Kodiak</td>
<td>85.7 83.6 87.7 0.00 85.7 1.2</td>
<td>200,446 195,494 204,995 200,372 2,891</td>
</tr>
<tr>
<td>Cook Inlet</td>
<td>11.3 9.5 13.3 0.00 11.4 1.2</td>
<td>26,509 22,238 31,208 26,584 2,730</td>
</tr>
<tr>
<td>Prince William Sound</td>
<td>2.3 1.6 3.2 0.00 2.3 0.5</td>
<td>5,360 3,700 7,534 5,453 1,180</td>
</tr>
<tr>
<td>South of Cape Suckling</td>
<td>0.4 0.1 0.9 0.01 0.4 0.3</td>
<td>839 183 2,201 970 653</td>
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<tr>
<td></td>
<td></td>
<td>Total 233,878</td>
</tr>
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<table>
<thead>
<tr>
<th>Reporting Group</th>
<th>Stock Composition</th>
<th>Stock-specific Harvest</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Black Lake</td>
<td>Saltery</td>
</tr>
<tr>
<td></td>
<td>Chignik Lake</td>
<td>Other Cook Inlet</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Susitna</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Kenai</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Kasilof</td>
</tr>
<tr>
<td>Chignik</td>
<td>0.0 0.0 0.65 0.0 0.0</td>
<td>1.6 1.0 2.4 0.0 1.6 0.4</td>
</tr>
<tr>
<td>Chignik Lake</td>
<td>0.0 0.0 0.77 0.0 0.0</td>
<td>1.6 1.0 2.4 0.0 1.6 0.4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3,761 2,419 5,584 3,852 975</td>
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<tr>
<td></td>
<td></td>
<td>5,067 2,816 7,928 5,182 1,567</td>
</tr>
<tr>
<td></td>
<td></td>
<td>15,439 11,686 19,737 15,542 2,458</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1,938 983 3,274 2,008 706</td>
</tr>
</tbody>
</table>

**Note:** Stock composition estimates may not sum to 100% and stock-specific harvest estimates may not sum to the total harvest due to rounding error.

**Note:** Results for Cook Inlet subregional reporting groups are only reported if the overall contribution to the Cook Inlet group in the stratum or any contributing strata is greater than 5%.
Appendix A25.–Karluk-Sturgeon (statistical areas 255-10, 20; 256-40), temporal stratum 1 (“Early”; June 1–27; Harvest = 56,018; \( n = 380 \)), 2014. Regional and subregional (within Chignik, Kodiak, and Cook Inlet) estimates of stock composition (%) and stock-specific harvest. Estimates include median, 90% credibility interval (CI), the probability that the group estimate is equal to zero \( (P = 0) \), mean, and standard deviation (SD).

<table>
<thead>
<tr>
<th>Reporting Group</th>
<th>Stock Composition</th>
<th></th>
<th></th>
<th></th>
<th>Stock-specific Harvest</th>
<th></th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Median</td>
<td>90% CI</td>
<td>90% CI</td>
<td>90% CI</td>
<td>Median</td>
<td>90% CI</td>
<td>90% CI</td>
<td>90% CI</td>
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<td>5%</td>
<td>95%</td>
<td>( P = 0 )</td>
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<td>5%</td>
<td>95%</td>
<td>Mean</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>SD</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Regional</td>
<td>Subregional</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>West of Chignik</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chignik</td>
<td>2.3</td>
<td>1.0</td>
<td>4.2</td>
<td>0.00</td>
<td>2.4</td>
<td>1.0</td>
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<tr>
<td>Kodiak</td>
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<td>0.10</td>
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<td>0.5</td>
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<td></td>
</tr>
<tr>
<td>Cook Inlet</td>
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<td>89.0</td>
<td>94.4</td>
<td>0.00</td>
<td>91.9</td>
<td>1.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prince William Sound</td>
<td>3.1</td>
<td>1.7</td>
<td>5.4</td>
<td>0.00</td>
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<tr>
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<td>3.0</td>
<td>0.00</td>
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</tr>
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<td>0.26</td>
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<tr>
<td>Chignik</td>
<td>Black Lake</td>
<td>0.3</td>
<td>0.0</td>
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<td>0.20</td>
<td>0.4</td>
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<tr>
<td></td>
<td>Chignik Lake</td>
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<td>0.0</td>
<td>0.4</td>
<td>0.51</td>
<td>0.1</td>
<td>0.2</td>
<td>0</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kodiak</td>
<td>Upper Station / Akalura</td>
<td>2.9</td>
<td>1.3</td>
<td>5.1</td>
<td>0.00</td>
<td>3.0</td>
<td>1.2</td>
<td>1,622</td>
</tr>
<tr>
<td></td>
<td>Ayakulik / Frazer</td>
<td>35.7</td>
<td>30.4</td>
<td>41.1</td>
<td>0.00</td>
<td>35.7</td>
<td>3.3</td>
<td>19,980</td>
</tr>
<tr>
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<td>Karluk</td>
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<td>40.9</td>
<td>52.9</td>
<td>0.00</td>
<td>47.0</td>
<td>3.7</td>
<td>26,303</td>
</tr>
<tr>
<td></td>
<td>Uganik</td>
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<td>0.4</td>
<td>3.1</td>
<td>0.01</td>
<td>1.6</td>
<td>0.8</td>
<td>816</td>
</tr>
<tr>
<td></td>
<td>Northwest Kodiak</td>
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<td>0.1</td>
<td>2.1</td>
<td>0.00</td>
<td>0.8</td>
<td>0.7</td>
<td>363</td>
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<tr>
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<td>Afognak</td>
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<td>0.02</td>
<td>0.7</td>
<td>0.5</td>
<td>313</td>
</tr>
<tr>
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<td>1.5</td>
<td>1.8</td>
<td>425</td>
</tr>
<tr>
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<td>0.00</td>
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</tr>
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<td>Other Cook Inlet</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Susitna</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Kenai</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Kasilof</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Total 56,018

Note: Stock composition estimates may not sum to 100% and stock-specific harvest estimates may not sum to the total harvest due to rounding error.

Note: Results for Cook Inlet subregional reporting groups are only reported if the overall contribution to the Cook Inlet group in the stratum or any contributing strata is greater than 5%.
Appendix A26.—Karluk-Sturgeon (statistical areas 255-10, 20; 256-40), temporal stratum 2 ("Middle"; June 28–July 25; Harvest = 68,438; \( n = 370 \)), 2014. Regional and subregional (within Chignik, Kodiak, and Cook Inlet) estimates of stock composition (%) and stock-specific harvest. Estimates include median, 90% credibility interval (CI), the probability that the group estimate is equal to zero \( (P = 0) \), mean, and standard deviation (SD).

<table>
<thead>
<tr>
<th>Reporting Group</th>
<th>Stock Composition</th>
<th>Stock-specific Harvest</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Stock</td>
<td>90% CI</td>
</tr>
<tr>
<td></td>
<td>Median</td>
<td>5%</td>
</tr>
<tr>
<td>Regional</td>
<td>Subregional</td>
<td></td>
</tr>
<tr>
<td>West of Chignik</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Chignik</td>
<td>3.3</td>
<td>1.7</td>
</tr>
<tr>
<td>Kodiak</td>
<td>90.7</td>
<td>87.3</td>
</tr>
<tr>
<td>Cook Inlet</td>
<td>3.5</td>
<td>1.9</td>
</tr>
<tr>
<td>Prince William Sound</td>
<td>1.6</td>
<td>0.6</td>
</tr>
<tr>
<td>South of Cape Suckling</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>68,438</td>
</tr>
<tr>
<td>Chignik</td>
<td>Black Lake</td>
<td>0.0</td>
</tr>
<tr>
<td></td>
<td>Chignik Lake</td>
<td>3.3</td>
</tr>
<tr>
<td>Kodiak</td>
<td>Upper Station / Akalura</td>
<td>0.0</td>
</tr>
<tr>
<td></td>
<td>Ayakulik / Frazer</td>
<td>25.8</td>
</tr>
<tr>
<td></td>
<td>Karluk</td>
<td>37.8</td>
</tr>
<tr>
<td></td>
<td>Uganik</td>
<td>5.4</td>
</tr>
<tr>
<td></td>
<td>Northwest Kodiak</td>
<td>0.2</td>
</tr>
<tr>
<td></td>
<td>Afognak</td>
<td>0.0</td>
</tr>
<tr>
<td></td>
<td>Eastside Kodiak</td>
<td>0.3</td>
</tr>
<tr>
<td></td>
<td>Saltery</td>
<td>20.0</td>
</tr>
<tr>
<td>Cook Inlet</td>
<td>Other Cook Inlet</td>
<td>*</td>
</tr>
<tr>
<td></td>
<td>Susitna</td>
<td>*</td>
</tr>
<tr>
<td></td>
<td>Kenai</td>
<td>*</td>
</tr>
<tr>
<td></td>
<td>Kasilof</td>
<td>*</td>
</tr>
</tbody>
</table>

Note: Stock composition estimates may not sum to 100% and stock-specific harvest estimates may not sum to the total harvest due to rounding error.

Note: Results for Cook Inlet subregional reporting groups are only reported if the overall contribution to the Cook Inlet group in the stratum or any contributing strata is greater than 5%.
Appendix A27.—Karluk-Sturgeon (statistical areas 255-10, 20; 256-40), temporal stratum 3 ("Late"; July 26–August 29; Harvest = 124,879; \(n = 657\)), 2014. Regional and subregional (within Chignik, Kodiak, and Cook Inlet) estimates of stock composition (%) and stock-specific harvest. Estimates include median, 90% credibility interval (CI), the probability that the group estimate is equal to zero (\(P = 0\)), mean, and standard deviation (SD).

<table>
<thead>
<tr>
<th>Reporting Group</th>
<th>Stock Composition</th>
<th>Stock-specific Harvest</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>90% CI</td>
<td>90% CI</td>
</tr>
<tr>
<td></td>
<td>Median 5% 95% P = 0 Mean SD</td>
<td>Median 5% 95% Mean SD</td>
</tr>
<tr>
<td>Regional</td>
<td>Subregional</td>
<td></td>
</tr>
<tr>
<td>West of Chignik</td>
<td>0.0 0.0 0.0 0.83 0.0 0.1</td>
<td>0 0 61 19 111</td>
</tr>
<tr>
<td>Chignik</td>
<td>0.3 0.0 1.1 0.18 0.4 0.4</td>
<td>343 0 1,341 449 462</td>
</tr>
<tr>
<td>Kodiak</td>
<td>99.0 98.0 99.7 0.00 99.0 0.5</td>
<td>123,685 122,430 124,493 123,603 639</td>
</tr>
<tr>
<td>Cook Inlet</td>
<td>0.4 0.1 1.0 0.00 0.4 0.3</td>
<td>484 110 1,264 559 367</td>
</tr>
<tr>
<td>Prince William Sound</td>
<td>0.0 0.0 0.5 0.41 0.1 0.2</td>
<td>14 0 576 128 217</td>
</tr>
<tr>
<td>South of Cape Suckling</td>
<td>0.0 0.0 0.4 0.45 0.1 0.2</td>
<td>5 0 558 120 210</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>124,879</td>
</tr>
<tr>
<td>Chignik</td>
<td>Black Lake</td>
<td>0.0 0.0 0.0 0.85 0.0 0.0</td>
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<tr>
<td></td>
<td>Chignik Lake</td>
<td>0.3 0.0 1.1 0.21 0.4 0.4</td>
</tr>
<tr>
<td>Kodiak</td>
<td>Upper Station / Akalura</td>
<td>9.5 7.2 12.2 0.00 9.6 1.5</td>
</tr>
<tr>
<td></td>
<td>Ayakulik / Frazer</td>
<td>6.2 4.2 8.5 0.00 6.2 1.3</td>
</tr>
<tr>
<td></td>
<td>Karluk</td>
<td>80.2 76.7 83.5 0.00 80.2 2.1</td>
</tr>
<tr>
<td></td>
<td>Uganiak</td>
<td>0.0 0.0 0.2 0.55 0.0 0.1</td>
</tr>
<tr>
<td></td>
<td>Northwest Kodiak</td>
<td>0.0 0.0 0.0 0.86 0.0 0.0</td>
</tr>
<tr>
<td></td>
<td>Afognak</td>
<td>0.0 0.0 0.0 0.85 0.0 0.0</td>
</tr>
<tr>
<td></td>
<td>Eastside Kodiak</td>
<td>0.0 0.0 0.3 0.77 0.0 0.2</td>
</tr>
<tr>
<td></td>
<td>Saltery</td>
<td>2.9 1.8 4.2 0.00 2.9 0.7</td>
</tr>
<tr>
<td>Cook Inlet</td>
<td>Other Cook Inlet</td>
<td>* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *</td>
</tr>
<tr>
<td></td>
<td>Susitna</td>
<td>* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *</td>
</tr>
<tr>
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<td>Kenai</td>
<td>* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *</td>
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<tr>
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<td>Kasilof</td>
<td>* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *</td>
</tr>
</tbody>
</table>

Note: Stock composition estimates may not sum to 100% and stock-specific harvest estimates may not sum to the total harvest due to rounding error.

Note: Results for Cook Inlet subregional reporting groups are only reported if the overall contribution to the Cook Inlet group in the stratum or any contributing strata is greater than 5%.
Appendix A28.—Karluk-Sturgeon (statistical areas 255-10, 20; 256-40), 2014, all strata. Annual regional and subregional (within Chignik, Kodiak, and Cook Inlet) estimates of stock composition (%) and stock-specific harvest. Estimates include median, 90% credibility interval (CI), the probability that the group estimate is equal to zero (P = 0), mean, and standard deviation (SD).

<table>
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<th>Reporting Group</th>
<th>Stock Composition</th>
<th>Stock-specific Harvest</th>
</tr>
</thead>
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<td></td>
<td>90% CI</td>
<td>90% CI</td>
</tr>
<tr>
<td></td>
<td>Median % 5% 95% P = 0 Mean SD</td>
<td>Median % 5% 95% Mean SD</td>
</tr>
<tr>
<td>West of Chignik</td>
<td>0.6 0.3 1.2 0.00 0.7 0.3</td>
<td>1,559 648 3,009 1,658 733</td>
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<td>1.2 0.6 1.9 0.00 1.2 0.4</td>
<td>2,986 1,605 4,797 3,065 972</td>
</tr>
<tr>
<td>Kodiak</td>
<td>95.1 93.9 96.2 0.00 95.1 0.7</td>
<td>237,111 234,121 239,751 237,049 1,718</td>
</tr>
<tr>
<td>Cook Inlet</td>
<td>1.9 1.3 2.7 0.00 1.9 0.4</td>
<td>4,754 3,182 6,779 4,837 1,103</td>
</tr>
<tr>
<td>Prince William Sound</td>
<td>0.9 0.5 1.5 0.00 0.9 0.3</td>
<td>2,183 1,149 3,756 2,281 805</td>
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<td>0.1 0.0 0.6 0.08 0.2 0.2</td>
<td>307 0 1,387 444 470</td>
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</table>

**Note:** Stock composition estimates may not sum to 100% and stock-specific harvest estimates may not sum to the total harvest due to rounding error.

**Note:** Results for Cook Inlet subregional reporting groups are only reported if the overall contribution to the Cook Inlet group in the stratum or any contributing strata is greater than 5%.
Appendix A29—Karluk-Sturgeon (statistical areas 255-10, 20; 256-40), temporal stratum 1 (“Early”; June 1–July 3; Harvest = 35,183; \( n = 375 \)), 2015. Regional and subregional (within Chignik, Kodiak, and Cook Inlet) estimates of stock composition (%) and stock-specific harvest. Estimates include median, 90% credibility interval (CI), the probability that the group estimate is equal to zero (\( P = 0 \)), mean, and standard deviation (SD).

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<th>Stock-specific Harvest</th>
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</thead>
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</tr>
<tr>
<td>West of Chignik</td>
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<td></td>
</tr>
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<td></td>
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<td>91.8</td>
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<tr>
<td>Cook Inlet</td>
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<tr>
<td>Prince William Sound</td>
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<td>6.0</td>
</tr>
<tr>
<td>South of Cape Suckling</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chignik</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chignik Lake</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kodiak</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper Station / Akalura</td>
<td>35.1</td>
<td>30.4</td>
</tr>
<tr>
<td>Ayakulik / Frazer</td>
<td>45.1</td>
<td>39.5</td>
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<tr>
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<td>3.5</td>
<td>1.9</td>
</tr>
<tr>
<td>Uganik</td>
<td>3.5</td>
<td>1.5</td>
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<tr>
<td>Northwest Kodiak</td>
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<td>0.8</td>
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<tr>
<td>Afognak</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Eastside Kodiak</td>
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<tr>
<td>Saltery</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cook Inlet</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Cook Inlet</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Susitna</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kenai</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kasilof</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Stock composition estimates may not sum to 100% and stock-specific harvest estimates may not sum to the total harvest due to rounding error.

Note: Results for Cook Inlet subregional reporting groups are only reported if the overall contribution to the Cook Inlet group in the stratum or any contributing strata is greater than 5%.
### Appendix A30.–Karluk-Sturgeon (statistical areas 255-10, 20; 256-40), temporal stratum 2 (“Middle”; July 4–August 1; Harvest = 29,915; n = 375), 2015. Regional and subregional (within Chignik, Kodiak, and Cook Inlet) estimates of stock composition (%) and stock-specific harvest. Estimates include median, 90% credibility interval (CI), the probability that the group estimate is equal to zero (P = 0), mean, and standard deviation (SD).

<table>
<thead>
<tr>
<th>Reporting Group</th>
<th>Stock Composition</th>
<th>Stock-specific Harvest</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Regional</td>
<td>Subregional</td>
</tr>
<tr>
<td></td>
<td>Median</td>
<td>5%</td>
</tr>
<tr>
<td>West of Chignik</td>
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<tr>
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<tr>
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<td>63.3</td>
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<td>1.1</td>
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<tr>
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<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
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<td>0.0</td>
</tr>
<tr>
<td>Chignik Lake</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Kodiak</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper Station / Akalura</td>
<td>0.0</td>
<td>0.0</td>
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<tr>
<td>Ayakulik / Frazer</td>
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<td>5.3</td>
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<td>0.0</td>
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<tr>
<td>Eastside Kodiak</td>
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<td>0.3</td>
</tr>
<tr>
<td>Saltery</td>
<td>6.4</td>
<td>4.2</td>
</tr>
<tr>
<td>Cook Inlet</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Cook Inlet</td>
<td>6.1</td>
<td>3.9</td>
</tr>
<tr>
<td>Susitna</td>
<td>5.7</td>
<td>3.7</td>
</tr>
<tr>
<td>Kenai</td>
<td>12.5</td>
<td>9.2</td>
</tr>
<tr>
<td>Kasilof</td>
<td>4.6</td>
<td>2.8</td>
</tr>
</tbody>
</table>

**Note:** Stock composition estimates may not sum to 100% and stock-specific harvest estimates may not sum to the total harvest due to rounding error.

**Note:** Results for Cook Inlet subregional reporting groups are only reported if the overall contribution to the Cook Inlet group in the stratum or any contributing strata is greater than 5%.
Appendix A31.—Karluk-Sturgeon (statistical areas 255-10, 20; 256-40), temporal stratum 3 (“Late”; August 2–29; Harvest = 63,532; \( n = 375 \)), 2015. Regional and subregional (within Chignik, Kodiak, and Cook Inlet) estimates of stock composition (%) and stock-specific harvest. Estimates include median, 90% credibility interval (CI), the probability that the group estimate is equal to zero (\( P = 0 \)), mean, and standard deviation (SD).

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<th>Subregional</th>
<th>Stock Composition</th>
<th>Stock-specific Harvest</th>
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</thead>
<tbody>
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<td></td>
<td></td>
<td>90% CI</td>
<td>90% CI</td>
</tr>
<tr>
<td></td>
<td>Median</td>
<td>5%</td>
<td>95%</td>
</tr>
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<td>0.91</td>
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<td>0.1</td>
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<td>11.9</td>
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<tr>
<td>Prince William Sound</td>
<td>0.1</td>
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<td>0.9</td>
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<tr>
<td>South of Cape Suckling</td>
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<td>0.0</td>
<td>2.9</td>
</tr>
<tr>
<td>Chignik</td>
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<td>0.0</td>
</tr>
<tr>
<td>Black Lake</td>
<td>3.9</td>
<td>1.9</td>
<td>6.6</td>
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<tr>
<td>Chignik Lake</td>
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<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
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<td>0.3</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Ayakulik / Frazer</td>
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<td>Karluk</td>
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<tr>
<td>Northwest Kodiak</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Afognak</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Eastside Kodiak</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Saltery</td>
<td>6.0</td>
<td>3.9</td>
<td>8.6</td>
</tr>
<tr>
<td>Other Cook Inlet</td>
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<td>1.9</td>
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<tr>
<td>Susitna</td>
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<td>3.5</td>
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<td>Kenai</td>
<td>6.4</td>
<td>4.2</td>
<td>9.0</td>
</tr>
<tr>
<td>Kasilof</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
</tbody>
</table>

Note: Stock composition estimates may not sum to 100% and stock-specific harvest estimates may not sum to the total harvest due to rounding error.

Note: Results for Cook Inlet subregional reporting groups are only reported if the overall contribution to the Cook Inlet group in the stratum or any contributing strata is greater than 5%.
Appendix A32—Karluk-Sturgeon (statistical areas 255-10, 20; 256-40), 2015, all strata. Annual regional and subregional (within Chignik, Kodiak, and Cook Inlet) estimates of stock composition (%) and stock-specific harvest. Estimates include median, 90% credibility interval (CI), the probability that the group estimate is equal to zero (P = 0), mean, and standard deviation (SD).

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<th>Stock-specific Harvest</th>
</tr>
</thead>
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</tr>
<tr>
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</tr>
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</tr>
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<td>0.0</td>
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<td>83.9</td>
</tr>
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<td>9.7</td>
</tr>
<tr>
<td>Prince William Sound</td>
<td>1.8</td>
<td>1.1</td>
</tr>
<tr>
<td>South of Cape Suckling</td>
<td>0.4</td>
<td>0.0</td>
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</table>

<table>
<thead>
<tr>
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<th>Black Lake</th>
<th>Chignik Lake</th>
</tr>
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</tr>
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<table>
<thead>
<tr>
<th></th>
<th>Upper Station / Akalura</th>
<th>Ayakulik / Frazer</th>
<th>Karluk</th>
<th>Uganik</th>
<th>Northwest Kodiak</th>
<th>Afognak</th>
<th>Eastside Kodiak</th>
<th>Saltery</th>
<th>Other Cook Inlet</th>
<th>Susitna</th>
<th>Kenai</th>
<th>Kasilof</th>
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<tbody>
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*Note:* Stock composition estimates may not sum to 100% and stock-specific harvest estimates may not sum to the total harvest due to rounding error.

*Note:* Results for Cook Inlet subregional reporting groups are only reported if the overall contribution to the Cook Inlet group in the stratum or any contributing strata is greater than 5%.
Appendix A33.—Karluk-Sturgeon (statistical areas 255-10, 20; 256-40), temporal stratum 1 (“Early”; June 1–27; Harvest = 13,856; n = 378), 2016. Regional and subregional (within Chignik, Kodiak, and Cook Inlet) estimates of stock composition (%) and stock-specific harvest. Estimates include median, 90% credibility interval (CI), the probability that the group estimate is equal to zero (P = 0), mean, and standard deviation (SD).

<table>
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<th>Reporting Group</th>
<th>Stock Composition</th>
<th>Stock-specific Harvest</th>
</tr>
</thead>
<tbody>
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<td></td>
<td>Median</td>
<td>5%</td>
</tr>
<tr>
<td><strong>Regional</strong></td>
<td></td>
<td></td>
</tr>
<tr>
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<td>1.7</td>
</tr>
<tr>
<td>Chignik</td>
<td>1.3</td>
<td>0.4</td>
</tr>
<tr>
<td>Kodiak</td>
<td>90.6</td>
<td>87.5</td>
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<tr>
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<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Prince William Sound</td>
<td>2.6</td>
<td>0.9</td>
</tr>
<tr>
<td>South of Cape Suckling</td>
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<td>0.0</td>
</tr>
<tr>
<td><strong>Subregional</strong></td>
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<td>0.1</td>
</tr>
<tr>
<td>Upper Station / Akalura</td>
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<td>3.0</td>
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</tr>
<tr>
<td>Eastside Kodiak</td>
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<td>0.0</td>
</tr>
<tr>
<td>Saltery</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td><strong>Cook Inlet</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Cook Inlet</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Susitna</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Kenai</td>
<td>*</td>
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</tr>
<tr>
<td>Kasilof</td>
<td>*</td>
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</tr>
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</table>

Note: Stock composition estimates may not sum to 100% and stock-specific harvest estimates may not sum to the total harvest due to rounding error.

Note: Results for Cook Inlet subregional reporting groups are only reported if the overall contribution to the Cook Inlet group in the stratum or any contributing strata is greater than 5%.
Appendix A34.—Karluk-Sturgeon (statistical areas 255-10, 20; 256-40), temporal stratum 2 (“Middle”; June 28–July 25; Harvest = 10,700; \( n = 366 \)), 2016. Regional and subregional (within Chignik, Kodiak, and Cook Inlet) estimates of stock composition (%) and stock-specific harvest. Estimates include median, 90% credibility interval (CI), the probability that the group estimate is equal to zero (\( P = 0 \)), mean, and standard deviation (SD).

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<tr>
<th>Reporting Group</th>
<th>Stock Composition</th>
<th>Stock-specific Harvest</th>
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<tr>
<td></td>
<td>Median 90% CI</td>
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<td>5% 95% P = 0 Mean SD</td>
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<td>Median 90% CI</td>
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<tr>
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<thead>
<tr>
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<th>Chignik Lake</th>
<th>Upper Station / Akalura</th>
<th>Ayakulik / Frazer</th>
<th>Karluk</th>
<th>Uganik</th>
<th>Northwest Kodiak</th>
<th>Afognak</th>
<th>Eastside Kodiak</th>
<th>Saltery</th>
</tr>
</thead>
<tbody>
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<td>Chignik</td>
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<td>0 0 3 2 17</td>
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<tr>
<td>Kodiak</td>
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</tr>
<tr>
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<td>Kenai</td>
<td>Kasilof</td>
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<td></td>
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*Note:* Stock composition estimates may not sum to 100% and stock-specific harvest estimates may not sum to the total harvest due to rounding error.  
*Note:* Results for Cook Inlet subregional reporting groups are only reported if the overall contribution to the Cook Inlet group in the stratum or any contributing strata is greater than 5%.
Appendix A35.—Karluk-Sturgeon (statistical areas 255-10, 20; 256-40), temporal stratum 3 ("Late"; July 26–August 29; Harvest = 113,445; n = 375), 2016. Regional and subregional (within Chignik, Kodiak, and Cook Inlet) estimates of stock composition (%) and stock-specific harvest. Estimates include median, 90% credibility interval (CI), the probability that the group estimate is equal to zero (P = 0), mean, and standard deviation (SD).

### Stock Composition

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<th>95%</th>
<th>P = 0</th>
<th>Mean</th>
<th>SD</th>
<th>Median</th>
<th>5%</th>
<th>95%</th>
<th>Mean</th>
<th>SD</th>
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<td>0.0</td>
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<td>0.86</td>
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<td>0.1</td>
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### Stock-specific Harvest

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<th>Median</th>
<th>5%</th>
<th>95%</th>
<th>Mean</th>
<th>SD</th>
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</thead>
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<td>0.0</td>
<td>0.0</td>
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<td>0.0</td>
<td>0.91</td>
<td>0.0</td>
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<tr>
<td>Kodiak Upper Station / Akalura</td>
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<td>4.9</td>
<td>0.07</td>
<td>2.6</td>
</tr>
<tr>
<td>Ayakulik / Frazer</td>
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<td>0.0</td>
<td>0.0</td>
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<td>0.17</td>
<td>0.3</td>
</tr>
<tr>
<td>Karluk</td>
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<td>87.6</td>
<td>94.1</td>
<td>0.00</td>
<td>90.9</td>
</tr>
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<td>Uganiik</td>
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<td>0.56</td>
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<td>0.3</td>
</tr>
<tr>
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<td>0.0</td>
<td>0.0</td>
<td>0.91</td>
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<tr>
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<tr>
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<td>*</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Susitna</td>
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<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Kenai</td>
<td></td>
<td>*</td>
<td>*</td>
<td>*</td>
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<td>*</td>
</tr>
<tr>
<td>Kasilof</td>
<td></td>
<td>*</td>
<td>*</td>
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<td>*</td>
<td>*</td>
</tr>
</tbody>
</table>

**Note:** Stock composition estimates may not sum to 100% and stock-specific harvest estimates may not sum to the total harvest due to rounding error.

**Note:** Results for Cook Inlet subregional reporting groups are only reported if the overall contribution to the Cook Inlet group in the stratum or any contributing strata is greater than 5%.
Appendix A36.—Karluk-Sturgeon (statistical areas 255-10, 20; 256-40), 2016, all strata. Annual regional and subregional (within Chignik, Kodiak, and Cook Inlet) estimates of stock composition (%) and stock-specific harvest. Estimates include median, 90% credibility interval (CI), the probability that the group estimate is equal to zero ($P = 0$), mean, and standard deviation (SD).

| Reporting Group | Stock Composition | | | | Stock-specific Harvest | |
|-----------------|-------------------|------------------|------------------|-------------------|------------------|------------------|------------------|------------------|------------------|
|                 | 90% CI            |                  |                  | 90% CI            |                  |                  |                  |                  |                  |
|                 | Median            | 5%               | 95%              | P = 0             | Mean             | SD               | Median            | 5%               | 95%              | Mean             | SD               |
| Regional        | Subregional       |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| West of Chignik |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Chignik         |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Kodiak          |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Cook Inlet      |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Prince William Sound |           |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| South of Cape Suckling |             |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |
|                  | Black Lake        |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |
|                  | Chignik Lake      |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |
|                  | Upper Station / Akalura |           |                  |                  |                  |                  |                  |                  |                  |                  |                  |
|                  | Ayakulik / Frazer |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |
|                  | Karluk            | 0.3              | 0.2              | 0.6              | 0.00             | 0.3              | 0.2              | 434              | 237              | 811              | 475              | 231              |
|                  |                   | 0.1              | 0.0              | 0.3              | 0.00             | 0.2              | 0.1              | 195              | 61               | 466              | 225              | 163              |
|                  |                   | 95.4             | 93.9             | 96.5             | 0.00             | 95.3             | 0.8              | 131,624          | 129,528          | 133,131          | 131,517          | 1,103            |
|                  |                   | 1.9              | 0.9              | 3.6              | 0.00             | 2.0              | 0.8              | 2,645            | 1,242            | 4,947            | 2,808            | 1,168            |
|                  |                   | 1.5              | 1.0              | 2.9              | 0.00             | 1.7              | 0.6              | 2,078            | 1,339            | 3,937            | 2,288            | 822              |
|                  |                   | 0.5              | 0.0              | 1.1              | 0.01             | 0.5              | 0.4              | 628              | 43               | 1,587            | 688              | 485              |
|                  | Black Lake        | 0.0              | 0.0              | 0.1              | 0.66             | 0.0              | 0.1              | 0                | 0                | 191              | 34               | 117              |
|                  | Chignik Lake      | 0.1              | 0.0              | 0.3              | 0.04             | 0.1              | 0.1              | 175              | 19               | 393              | 191              | 126              |
|                  | Upper Station / Akalura | 2.8            | 0.6              | 4.7              | 0.00             | 2.8              | 1.2              | 3,810            | 879              | 6,462            | 3,818            | 1,592            |
|                  | Ayakulik / Frazer | 3.7              | 3.1              | 4.7              | 0.00             | 3.8              | 0.5              | 5,115            | 4,294            | 6,476            | 5,210            | 684              |
|                  | Karluk            | 82.9             | 80.1             | 85.6             | 0.00             | 82.9             | 1.7              | 114,421          | 110,544          | 118,099          | 114,378          | 2,291            |
|                  | Uganik            | 1.1              | 0.8              | 1.5              | 0.00             | 1.1              | 0.2              | 1,558            | 1,124            | 2,090            | 1,577            | 301              |
|                  | Northwest Kodiak  | 0.2              | 0.0              | 0.7              | 0.00             | 0.3              | 0.2              | 323              | 47               | 1,033            | 403              | 324              |
|                  | Afognak           | 0.1              | 0.0              | 0.3              | 0.00             | 0.1              | 0.1              | 184              | 56               | 394              | 200              | 110              |
|                  | Eastside Kodiak   | 0.1              | 0.0              | 0.3              | 0.00             | 0.1              | 0.1              | 133              | 34               | 435              | 173              | 156              |
|                  | Saltery           | 4.1              | 2.8              | 5.8              | 0.00             | 4.2              | 0.9              | 5,661            | 3,894            | 7,963            | 5,758            | 1,248            |
|                  | Other Cook Inlet  | 0.1              | 0.0              | 0.6              | 0.04             | 0.2              | 0.2              | 195              | 2                | 804              | 268              | 300              |
|                  | Susitna           | 0.2              | 0.1              | 0.7              | 0.00             | 0.3              | 0.2              | 337              | 158              | 938              | 406              | 300              |
|                  | Kenai             | 1.2              | 0.2              | 2.9              | 0.00             | 1.3              | 0.8              | 1,591            | 344              | 3,936            | 1,782            | 1,164            |
|                  | Kasilof           | 0.2              | 0.1              | 0.4              | 0.00             | 0.3              | 0.1              | 342              | 189              | 550              | 353              | 114              |

Note: Stock composition estimates may not sum to 100% and stock-specific harvest estimates may not sum to the total harvest due to rounding error.

Note: Results for Cook Inlet subregional reporting groups are only reported if the overall contribution to the Cook Inlet group in the stratum or any contributing strata is greater than 5%.
Appendix A37.—Ayakulik-Halibut Bay (statistical areas 256-10, 15, 20, 25, 30), temporal stratum 1 (“Early”; June 1–27; Harvest = 162,984; \( n = 378 \)), 2014. Regional and subregional (within Chignik, Kodiak, and Cook Inlet) estimates of stock composition (%) and stock-specific harvest. Estimates include median, 90% credibility interval (CI), the probability that the group estimate is equal to zero (\( P = 0 \)), mean, and standard deviation (SD).

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<th>Stock Composition</th>
<th>Stock-specific Harvest</th>
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<td>90% CI</td>
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<td>Median</td>
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<td></td>
</tr>
<tr>
<td>Kodiak</td>
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</tr>
<tr>
<td>Cook Inlet</td>
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</tr>
<tr>
<td>Prince William Sound</td>
<td></td>
</tr>
<tr>
<td>South of Cape Suckling</td>
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</tr>
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<td><strong>Uganik</strong></td>
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<td><strong>Afognak</strong></td>
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<td><strong>Eastside Kodiak</strong></td>
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<td><strong>Saltery</strong></td>
</tr>
<tr>
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<td><strong>Other Cook Inlet</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Susitna</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Kasilof</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Kasilof</strong></td>
</tr>
</tbody>
</table>

**Note:** Stock composition estimates may not sum to 100% and stock-specific harvest estimates may not sum to the total harvest due to rounding error.

**Note:** Results for Cook Inlet subregional reporting groups are only reported if the overall contribution to the Cook Inlet group in the stratum or any contributing strata is greater than 5%.
Appendix A38.–Ayakulik-Halibut Bay (statistical areas 256-10, 15, 20, 25, 30), temporal stratum 2 (“Middle”; June 28–July 25; Harvest = 175,205; n = 379), 2014. Regional and subregional (within Chignik, Kodiak, and Cook Inlet) estimates of stock composition (%) and stock-specific harvest. Estimates include median, 90% credibility interval (CI), the probability that the group estimate is equal to zero (P = 0), mean, and standard deviation (SD).

<table>
<thead>
<tr>
<th>Reporting Group</th>
<th>Stock Composition</th>
<th>Stock-specific Harvest</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Median</td>
<td>90% CI</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regional</td>
<td>Subregional</td>
<td></td>
</tr>
<tr>
<td>West of Chignik</td>
<td>4.1</td>
<td>1.8</td>
</tr>
<tr>
<td>Chignik</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Kodiak</td>
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</tr>
<tr>
<td>Cook Inlet</td>
<td>23.6</td>
<td>19.5</td>
</tr>
<tr>
<td>Prince William Sound</td>
<td>0.5</td>
<td>0.1</td>
</tr>
<tr>
<td>South of Cape Suckling</td>
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<td>0.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chignik</td>
<td>Black Lake</td>
<td>0.0</td>
</tr>
<tr>
<td>Chignik Lake</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Kodiak</td>
<td>Upper Station / Akalura</td>
<td>2.0</td>
</tr>
<tr>
<td>Ayakulik / Frazer</td>
<td>51.7</td>
<td>47.0</td>
</tr>
<tr>
<td>Karluk</td>
<td>1.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Uganik</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Northwest Kodiak</td>
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<td>0.0</td>
</tr>
<tr>
<td>Afognak</td>
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<tr>
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</tr>
<tr>
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<td>10.0</td>
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<tr>
<td>Cook Inlet</td>
<td>Other Cook Inlet</td>
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</tr>
<tr>
<td>Susitna</td>
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<td>0.0</td>
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<tr>
<td>Kenai</td>
<td>16.8</td>
<td>13.3</td>
</tr>
<tr>
<td>Kasilof</td>
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<td>2.4</td>
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</table>

Note: Stock composition estimates may not sum to 100% and stock-specific harvest estimates may not sum to the total harvest due to rounding error.

Note: Results for Cook Inlet subregional reporting groups are only reported if the overall contribution to the Cook Inlet group in the stratum or any contributing strata is greater than 5%.
Appendix A39—Ayakulik-Halibut Bay (statistical areas 256-10, 15, 20, 25, 30), temporal stratum 3 (“Late”; July 26–August 29; Harvest = 57,066; n = 374), 2014. Regional and subregional (within Chignik, Kodiak, and Cook Inlet) estimates of stock composition (%) and stock-specific harvest. Estimates include median, 90% credibility interval (CI), the probability that the group estimate is equal to zero (P = 0), mean, and standard deviation (SD).

<table>
<thead>
<tr>
<th>Reporting Group</th>
<th>Stock Composition</th>
<th></th>
<th></th>
<th></th>
<th>Stock-specific Harvest</th>
<th></th>
<th></th>
</tr>
</thead>
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<tr>
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<td>Med</td>
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<td>Med</td>
<td>90% CI</td>
<td>Med</td>
<td>90% CI</td>
<td>Med</td>
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<td>0.01</td>
<td>0.9</td>
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<td>0.1</td>
<td>2.0</td>
<td>0.00</td>
<td>0.9</td>
<td>0.6</td>
<td>427</td>
</tr>
<tr>
<td>Kodiak</td>
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<td>89.2</td>
<td>94.3</td>
<td>0.00</td>
<td>91.9</td>
<td>1.6</td>
<td>52,483</td>
</tr>
<tr>
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<td>3.2</td>
<td>7.6</td>
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<td>5.3</td>
<td>1.4</td>
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</tr>
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<td>0.0</td>
<td>0.9</td>
<td>0.10</td>
<td>0.3</td>
<td>0.3</td>
<td>95</td>
</tr>
<tr>
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<td>0.2</td>
<td>1.8</td>
<td>0.00</td>
<td>0.8</td>
<td>0.5</td>
<td>412</td>
</tr>
<tr>
<td>Chignik</td>
<td></td>
<td>Black Lake</td>
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<td>0.83</td>
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</tr>
<tr>
<td>Chignik Lake</td>
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<td></td>
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<tr>
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</tr>
<tr>
<td></td>
<td></td>
<td>Ayakulik / Frazer</td>
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<td>47.0</td>
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<td>52.1</td>
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<tr>
<td></td>
<td></td>
<td>Karluk</td>
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<td>12.8</td>
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<td></td>
<td></td>
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<td>0.92</td>
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<td>1.1</td>
</tr>
<tr>
<td></td>
<td></td>
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<tr>
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<td>Other Cook Inlet</td>
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<td>0.00</td>
<td>1.1</td>
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<tr>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td></td>
<td>Kasilof</td>
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<td>0.0</td>
<td>0.91</td>
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</tr>
</tbody>
</table>

*Note:* Stock composition estimates may not sum to 100% and stock-specific harvest estimates may not sum to the total harvest due to rounding error.

*Note:* Results for Cook Inlet subregional reporting groups are only reported if the overall contribution to the Cook Inlet group in the stratum or any contributing strata is greater than 5%.
Appendix A40.—Ayakulik-Halibut Bay (statistical areas 256-10, 15, 20, 25, 30), 2014, all strata. Annual regional and subregional (within Chignik, Kodiak, and Cook Inlet) estimates of stock composition (%) and stock-specific harvest. Estimates include median, 90% credibility interval (CI), the probability that the group estimate is equal to zero (P = 0), mean, and standard deviation (SD).

<table>
<thead>
<tr>
<th>Reporting Group</th>
<th>Stock Composition</th>
<th>Stock-specific Harvest</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>90% CI</td>
<td>90% CI</td>
</tr>
<tr>
<td></td>
<td>Median 5% 95% P = 0 Mean SD</td>
<td>Median 5% 95% Mean SD</td>
</tr>
<tr>
<td>West of Chignik</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chignik</td>
<td>2.6 1.5 3.9 0.00 2.6 0.7</td>
<td>10,318 5,939 15,360 10,444 2,852</td>
</tr>
<tr>
<td>Kodiak</td>
<td>0.2 0.0 0.5 0.00 0.2 0.2</td>
<td>637 131 2,083 808 653</td>
</tr>
<tr>
<td>Cook Inlet</td>
<td>80.9 78.6 83.0 0.00 80.8 1.4</td>
<td>319,597 310,580 328,170 319,518 5,362</td>
</tr>
<tr>
<td>Prince William Sound</td>
<td>1.3 0.7 2.4 0.00 1.4 0.5</td>
<td>5,280 2,882 9,457 5,601 2,066</td>
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<tr>
<td>South of Cape Suckling</td>
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<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chignik</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black Lake</td>
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<td>8 0 1,077 211 419</td>
</tr>
<tr>
<td>Chignik Lake</td>
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<td>474 12 1,561 597 535</td>
</tr>
<tr>
<td>Kodiak</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper Station / Akalura</td>
<td>5.2 4.2 6.4 0.00 5.2 0.7</td>
<td>20,529 16,497 25,273 20,658 2,673</td>
</tr>
<tr>
<td>Ayakulik / Frazer</td>
<td>59.9 57.0 62.6 0.00 59.8 1.7</td>
<td>236,602 225,238 247,620 236,531 6,813</td>
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<tr>
<td>Karluk</td>
<td>6.6 5.0 8.6 0.00 6.7 1.1</td>
<td>26,103 19,613 33,984 26,365 4,373</td>
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<tr>
<td>Uganik</td>
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<tr>
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<tr>
<td>Afognak</td>
<td>0.0 0.0 0.2 0.47 0.0 0.1</td>
<td>0 0 750 122 358</td>
</tr>
<tr>
<td>Eastside Kodiak</td>
<td>1.5 0.8 2.4 0.00 1.5 0.5</td>
<td>5,751 3,263 9,550 6,005 1,996</td>
</tr>
<tr>
<td>Saltery</td>
<td>7.2 5.7 8.9 0.00 7.2 1.0</td>
<td>28,484 22,539 35,047 28,608 3,805</td>
</tr>
<tr>
<td>Cook Inlet</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Cook Inlet</td>
<td>1.3 0.6 2.4 0.00 1.4 0.6</td>
<td>5,057 2,262 9,632 5,383 2,306</td>
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<tr>
<td>Susitna</td>
<td>0.3 0.0 1.3 0.11 0.4 0.4</td>
<td>1,259 0 5,081 1,685 1,747</td>
</tr>
<tr>
<td>Kenai</td>
<td>8.5 6.9 10.2 0.00 8.5 1.0</td>
<td>33,461 27,146 40,343 33,572 4,029</td>
</tr>
<tr>
<td>Kasilof</td>
<td>3.9 2.8 5.2 0.00 3.9 0.7</td>
<td>15,374 11,174 20,396 15,526 2,807</td>
</tr>
</tbody>
</table>

Note: Stock composition estimates may not sum to 100% and stock-specific harvest estimates may not sum to the total harvest due to rounding error.

Note: Results for Cook Inlet subregional reporting groups are only reported if the overall contribution to the Cook Inlet group in the stratum or any contributing strata is greater than 5%.
Appendix A1—Ayakulik-Halibut Bay (statistical areas 256-10, 15, 20, 25, 30), temporal stratum 1 (“Early”; June 1–July 3; Harvest = 203,170; \( n = 377 \)), 2015. Regional and subregional (within Chignik, Kodiak, and Cook Inlet) estimates of stock composition (%) and stock-specific harvest. Estimates include median, 90% credibility interval (CI), the probability that the group estimate is equal to zero (\( P = 0 \)), mean, and standard deviation (SD).

<table>
<thead>
<tr>
<th>Reporting Group</th>
<th>Stock Composition</th>
<th>Stock-specific Harvest</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>90% CI</td>
<td>90% CI</td>
</tr>
<tr>
<td></td>
<td>Median</td>
<td>5%</td>
</tr>
<tr>
<td>West of Chignik</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chignik</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Kodiak</td>
<td>1.8</td>
<td>0.7</td>
</tr>
<tr>
<td>Cook Inlet</td>
<td>61.7</td>
<td>57.2</td>
</tr>
<tr>
<td>Prince William Sound</td>
<td>28.2</td>
<td>24.2</td>
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<tr>
<td>South of Cape Suckling</td>
<td>7.9</td>
<td>5.2</td>
</tr>
<tr>
<td>Total</td>
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</tr>
<tr>
<td>Chignik Lake</td>
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</tr>
<tr>
<td>Chignik</td>
<td>1.8</td>
<td>0.7</td>
</tr>
<tr>
<td>Black Lake</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Kodiak</td>
<td>4.0</td>
<td>2.4</td>
</tr>
<tr>
<td>Upper Station / Akalura</td>
<td>44.8</td>
<td>40.2</td>
</tr>
<tr>
<td>Ayakulik / Frazer</td>
<td>9.4</td>
<td>6.3</td>
</tr>
<tr>
<td>Karlux</td>
<td>2.1</td>
<td>0.9</td>
</tr>
<tr>
<td>Uganik</td>
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<td>0.0</td>
</tr>
<tr>
<td>Northwest Kodiak</td>
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<td>0.0</td>
</tr>
<tr>
<td>Afognak</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Eastside Kodiak</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Saltery</td>
<td>4.1</td>
<td>1.9</td>
</tr>
<tr>
<td>Other Cook Inlet</td>
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<td>0.0</td>
</tr>
<tr>
<td>Susitna</td>
<td>4.9</td>
<td>3.3</td>
</tr>
<tr>
<td>Kenai</td>
<td>19.0</td>
<td>15.6</td>
</tr>
</tbody>
</table>

Note: Stock composition estimates may not sum to 100% and stock-specific harvest estimates may not sum to the total harvest due to rounding error.

Note: Results for Cook Inlet subregional reporting groups are only reported if the overall contribution to the Cook Inlet group in the stratum or any contributing strata is greater than 5%.
Appendix A42.—Ayakulik-Halibut Bay (statistical areas 256-10, 15, 20, 25, 30), temporal stratum 2 (“Middle”; July 4–August 1; Harvest = 384,390; n = 377), 2015. Regional and subregional (within Chignik, Kodiak, and Cook Inlet) estimates of stock composition (%) and stock-specific harvest. Estimates include median, 90% credibility interval (CI), the probability that the group estimate is equal to zero (P = 0), mean, and standard deviation (SD).

<table>
<thead>
<tr>
<th>Reporting Group</th>
<th>Stock Composition</th>
<th>Stock-specific Harvest</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>90% CI</td>
<td>90% CI</td>
</tr>
<tr>
<td></td>
<td>Median 5% 95% P = 0 Mean SD</td>
<td>Median 5% 95% Mean SD</td>
</tr>
<tr>
<td><strong>Regional</strong></td>
<td><strong>Subregional</strong></td>
<td>****</td>
</tr>
<tr>
<td>West of Chignik</td>
<td>0.0 0.0 0.2 0.87 0.1 0.3</td>
<td>0 0 860 250 1,278</td>
</tr>
<tr>
<td>Chignik</td>
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<td>0 0 321 78 423</td>
</tr>
<tr>
<td>Kodiak</td>
<td>51.3 46.7 55.8 0.00 51.3 2.8</td>
<td>197,016 179,638 214,474 197,033 10,580</td>
</tr>
<tr>
<td>Cook Inlet</td>
<td>48.2 43.6 52.7 0.00 48.2 2.8</td>
<td>185,118 167,476 202,725 185,100 10,684</td>
</tr>
<tr>
<td>Prince William Sound</td>
<td>0.3 0.0 1.8 0.00 0.5 0.6</td>
<td>1,056 74 6,765 1,881 2,414</td>
</tr>
<tr>
<td>South of Cape Suckling</td>
<td>0.0 0.0 0.0 0.90 0.0 0.1</td>
<td>0 0 36 47 395</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>384,390</strong></td>
</tr>
</tbody>
</table>

| Chignik Black Lake       | 0.0 0.0 0.0 0.85 0.0 0.1 | 0 0 86 44 305          |
| Chignik Chignik Lake     | 0.0 0.0 0.0 0.91 0.0 0.1 | 0 0 15 34 295          |

| Kodiak Upper Station / Akalura | 0.0 0.0 0.5 0.66 0.1 0.3 | 0 0 1,787 267 990     |
| Ayakulik / Frazer          | 40.7 36.3 45.2 0.00 40.8 2.7 | 156,626 139,595 173,832 156,652 10,389 |
| Karluk                     | 4.6 2.4 7.5 0.00 4.7 1.6 | 17,586 9,091 29,021 18,142 6,106 |
| Uganik                     | 0.0 0.0 1.3 0.69 0.2 0.5 | 0 0 4,886 669 1,902   |
| Northwest Kodiak           | 0.0 0.0 0.0 0.88 0.0 0.1 | 0 0 186 72 424       |
| Afognak                    | 0.0 0.0 0.0 0.91 0.0 0.1 | 0 0 10 24 221        |
| Eastside Kodiak            | 0.5 0.1 1.5 0.00 0.6 0.5 | 1,991 419 5,761 2,397 1,769 |
| Saltery                    | 4.8 2.9 7.2 0.00 4.9 1.3 | 18,453 11,034 27,836 18,811 5,128 |

| Cook Inlet Other Cook Inlet | 7.4 4.7 10.5 0.00 7.5 1.8 | 28,391 18,049 40,444 28,723 6,856 |
| Susitna                    | 3.7 2.0 6.0 0.00 3.8 1.2 | 14,172 7,682 23,027 14,603 4,714 |
| Kenai                      | 27.0 22.7 31.5 0.00 27.0 2.7 | 103,596 87,278 120,975 103,805 10,241 |
| Kasilof                    | 9.8 7.1 12.9 0.00 9.9 1.8 | 37,658 27,294 49,734 37,969 6,841 |

Note: Stock composition estimates may not sum to 100% and stock-specific harvest estimates may not sum to the total harvest due to rounding error.

Note: Results for Cook Inlet subregional reporting groups are only reported if the overall contribution to the Cook Inlet group in the stratum or any contributing strata is greater than 5%.
Appendix A43.—Ayakulik-Halibut Bay (statistical areas 256-10, 15, 20, 25, 30), temporal stratum 3 (“Late”; August 2–29; Harvest = 20,619; \( n = 379 \)), 2015. Regional and subregional (within Chignik, Kodiak, and Cook Inlet) estimates of stock composition (%) and stock-specific harvest. Estimates include median, 90% credibility interval (CI), the probability that the group estimate is equal to zero (\( P = 0 \)), mean, and standard deviation (SD).

<table>
<thead>
<tr>
<th>Reporting Group</th>
<th>Stock Composition</th>
<th>Stock-specific Harvest</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Regional</td>
<td>Subregional</td>
</tr>
<tr>
<td>West of Chignik</td>
<td>0.2</td>
<td>0.0</td>
</tr>
<tr>
<td>Chignik</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Kodiak</td>
<td>89.5</td>
<td>86.5</td>
</tr>
<tr>
<td>Cook Inlet</td>
<td>8.3</td>
<td>5.9</td>
</tr>
<tr>
<td>Prince William Sound</td>
<td>1.1</td>
<td>0.0</td>
</tr>
<tr>
<td>South of Cape Suckling</td>
<td>0.0</td>
<td>0.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Reporting Group</th>
<th>Stock Composition</th>
<th>Stock-specific Harvest</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Regional</td>
<td>Subregional</td>
</tr>
<tr>
<td>Chignik Black Lake</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Chignik Lake</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Chignik Upper Station / Akalura</td>
<td>15.9</td>
<td>12.5</td>
</tr>
<tr>
<td>Ayakulik / Frazer</td>
<td>24.8</td>
<td>20.6</td>
</tr>
<tr>
<td>Karluk</td>
<td>24.4</td>
<td>20.0</td>
</tr>
<tr>
<td>Uganik</td>
<td>0.2</td>
<td>0.0</td>
</tr>
<tr>
<td>Northwest Kodiak</td>
<td>0.2</td>
<td>0.0</td>
</tr>
<tr>
<td>Afognak</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Eastside Kodiak</td>
<td>1.7</td>
<td>0.8</td>
</tr>
<tr>
<td>Saltery</td>
<td>21.7</td>
<td>18.1</td>
</tr>
<tr>
<td>Chignik Other Cook Inlet</td>
<td>0.6</td>
<td>0.1</td>
</tr>
<tr>
<td>Susitna</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Kenai</td>
<td>7.5</td>
<td>5.2</td>
</tr>
<tr>
<td>Kaslof</td>
<td>0.0</td>
<td>0.0</td>
</tr>
</tbody>
</table>

Notes:
- Stock composition estimates may not sum to 100% and stock-specific harvest estimates may not sum to the total harvest due to rounding error.
- Results for Cook Inlet subregional reporting groups are only reported if the overall contribution to the Cook Inlet group in the stratum or any contributing strata is greater than 5%.
<table>
<thead>
<tr>
<th>Reporting Group</th>
<th>Stock Composition</th>
<th>Stock-specific Harvest</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>90% CI</td>
<td>90% CI</td>
</tr>
<tr>
<td></td>
<td>Median 5% 95% P = 0</td>
<td>Mean SD</td>
</tr>
<tr>
<td></td>
<td>Median 5% 95% Mean SD</td>
<td></td>
</tr>
<tr>
<td>West of Chignik</td>
<td>0.0 0.0 0.3 0.04 0.1 0.2</td>
<td>53 1 1,905 372 1,333</td>
</tr>
<tr>
<td>Chignik</td>
<td>0.6 0.2 1.2 0.00 0.7 0.3</td>
<td>3,764 1,435 7,399 4,010 1,849</td>
</tr>
<tr>
<td>Kodiak</td>
<td>56.0 52.8 59.3 0.00 56.0 2.0</td>
<td>340,744 321,037 360,357 340,718 11,938</td>
</tr>
<tr>
<td>Cook Inlet</td>
<td>40.2 37.0 43.4 0.00 40.2 2.0</td>
<td>244,316 224,759 263,868 244,282 11,886</td>
</tr>
<tr>
<td>Prince William Sound</td>
<td>3.0 2.0 4.3 0.00 3.0 0.7</td>
<td>18,038 11,900 26,256 18,436 4,458</td>
</tr>
<tr>
<td>South of Cape Suckling</td>
<td>0.0 0.0 0.3 0.40 0.1 0.1</td>
<td>62 0 1,908 361 814</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chignik Black Lake</td>
<td>0.6 0.2 1.2 0.00 0.6 0.3</td>
<td>3,666 1,358 7,209 3,897 1,813</td>
</tr>
<tr>
<td>Chignik Lake</td>
<td>0.0 0.0 0.1 0.76 0.0 0.1</td>
<td>0 0 697 113 501</td>
</tr>
<tr>
<td>Kodiak Upper Station / Akalura</td>
<td>1.9 1.3 2.7 0.00 2.0 0.4</td>
<td>11,691 8,151 16,556 11,942 2,618</td>
</tr>
<tr>
<td>Ayakulik / Frazer</td>
<td>41.6 38.4 44.8 0.00 41.6 2.0</td>
<td>252,727 233,283 272,379 252,796 11,902</td>
</tr>
<tr>
<td>Karluk</td>
<td>6.9 5.1 9.1 0.00 7.0 1.2</td>
<td>41,959 30,985 55,342 42,416 7,441</td>
</tr>
<tr>
<td>Uganik</td>
<td>0.8 0.3 1.7 0.00 0.9 0.4</td>
<td>4,783 2,008 10,423 5,293 2,710</td>
</tr>
<tr>
<td>Northwest Kodiak</td>
<td>0.0 0.0 0.5 0.00 0.1 0.2</td>
<td>122 6 3,331 709 1,189</td>
</tr>
<tr>
<td>Afognak</td>
<td>0.2 0.0 0.7 0.27 0.2 0.3</td>
<td>1,087 0 4,398 1,445 1,539</td>
</tr>
<tr>
<td>Eastside Kodiak</td>
<td>0.4 0.1 1.0 0.00 0.5 0.3</td>
<td>2,386 777 6,187 2,788 1,787</td>
</tr>
<tr>
<td>Saltery</td>
<td>3.8 2.5 5.3 0.00 3.8 0.8</td>
<td>22,969 15,503 32,412 23,329 5,153</td>
</tr>
<tr>
<td>Cook Inlet Other Cook Inlet</td>
<td>6.1 4.2 8.3 0.00 6.2 1.2</td>
<td>37,114 25,658 50,324 37,427 7,514</td>
</tr>
<tr>
<td>Susitna</td>
<td>2.3 1.3 3.8 0.00 2.4 0.8</td>
<td>14,228 7,730 23,087 14,658 4,721</td>
</tr>
<tr>
<td>Kenai</td>
<td>19.0 16.2 21.9 0.00 19.0 1.7</td>
<td>115,289 98,566 133,082 115,493 10,501</td>
</tr>
<tr>
<td>Kasilof</td>
<td>12.6 10.5 14.9 0.00 12.6 1.3</td>
<td>76,450 63,868 90,474 76,704 8,096</td>
</tr>
</tbody>
</table>

**Note:** Stock composition estimates may not sum to 100% and stock-specific harvest estimates may not sum to the total harvest due to rounding error.

**Note:** Results for Cook Inlet subregional reporting groups are only reported if the overall contribution to the Cook Inlet group in the stratum or any contributing strata is greater than 5%.
Appendix A45.—Ayakulik-Halibut Bay (statistical areas 256-10, 15, 20, 25, 30), temporal stratum 1 ("Early"; June 1–27; Harvest = 3,937; n = 219), 2016. Regional and subregional (within Chignik, Kodiak, and Cook Inlet) estimates of stock composition (%) and stock-specific harvest. Estimates include median, 90% credibility interval (CI), the probability that the group estimate is equal to zero (P = 0), mean, and standard deviation (SD).

<table>
<thead>
<tr>
<th>Reporting Group</th>
<th>Subregional</th>
<th>Stock Composition</th>
<th>Stock-specific Harvest</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Median 90% CI</td>
<td>Mean SD</td>
</tr>
<tr>
<td>West of Chignik</td>
<td></td>
<td>0.0 0.0 0.0 0.92 0.0 0.0</td>
<td>0 0 0 0 2</td>
</tr>
<tr>
<td>Chignik</td>
<td></td>
<td>0.0 0.0 0.0 0.79 0.0 0.1</td>
<td>0 0 2 1 3</td>
</tr>
<tr>
<td>Kodiak</td>
<td></td>
<td>99.5 98.3 99.9 0.00 99.4 0.5</td>
<td>3,917 3,869 3,935 3,912 22</td>
</tr>
<tr>
<td>Cook Inlet</td>
<td></td>
<td>0.4 0.0 1.6 0.00 0.6 0.5</td>
<td>17 2 63 23 20</td>
</tr>
<tr>
<td>Prince William Sound</td>
<td></td>
<td>0.0 0.0 0.2 0.52 0.0 0.1</td>
<td>0 0 9 1 5</td>
</tr>
<tr>
<td>South of Cape Suckling</td>
<td></td>
<td>0.0 0.0 0.0 0.92 0.0 0.1</td>
<td>0 0 0 0 2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Stock Composition</th>
<th>Stock-specific Harvest</th>
</tr>
</thead>
<tbody>
<tr>
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<td>Subregional</td>
</tr>
<tr>
<td></td>
<td>Median 90% CI</td>
</tr>
<tr>
<td></td>
<td>0 0 0 0 2</td>
</tr>
<tr>
<td>Chignik</td>
<td>Black Lake</td>
</tr>
<tr>
<td></td>
<td>0.0 0.0 0.0 0.86 0.0 0.1</td>
</tr>
<tr>
<td></td>
<td>Chignik Lake</td>
</tr>
<tr>
<td></td>
<td>0.0 0.0 0.0 0.92 0.0 0.0</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Kodiak</td>
<td>Upper Station / Akalura</td>
</tr>
<tr>
<td></td>
<td>0.0 0.0 0.2 0.69 0.0 0.2</td>
</tr>
<tr>
<td></td>
<td>Ayakulik / Frazer</td>
</tr>
<tr>
<td></td>
<td>98.0 95.7 99.3 0.00 97.8 1.2</td>
</tr>
<tr>
<td></td>
<td>Karluk</td>
</tr>
<tr>
<td></td>
<td>0.7 0.0 3.0 0.07 1.0 1.0</td>
</tr>
<tr>
<td></td>
<td>Uganik</td>
</tr>
<tr>
<td></td>
<td>0.2 0.0 1.8 0.33 0.5 0.7</td>
</tr>
<tr>
<td></td>
<td>Northwest Kodiak</td>
</tr>
<tr>
<td></td>
<td>0.0 0.0 0.0 0.91 0.0 0.1</td>
</tr>
<tr>
<td></td>
<td>Afognak</td>
</tr>
<tr>
<td></td>
<td>0.0 0.0 0.0 0.92 0.0 0.0</td>
</tr>
<tr>
<td></td>
<td>Eastside Kodiak</td>
</tr>
<tr>
<td></td>
<td>0.0 0.0 0.0 0.90 0.0 0.1</td>
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<tr>
<td></td>
<td>Saltery</td>
</tr>
<tr>
<td></td>
<td>0.0 0.0 0.0 0.92 0.0 0.1</td>
</tr>
<tr>
<td></td>
<td>Other Cook Inlet</td>
</tr>
<tr>
<td></td>
<td>* * * * *</td>
</tr>
<tr>
<td></td>
<td>Susitna</td>
</tr>
<tr>
<td></td>
<td>* * * * *</td>
</tr>
<tr>
<td></td>
<td>Kenai</td>
</tr>
<tr>
<td></td>
<td>* * * * *</td>
</tr>
<tr>
<td></td>
<td>Kasilof</td>
</tr>
<tr>
<td></td>
<td>* * * * *</td>
</tr>
</tbody>
</table>

Note: Stock composition estimates may not sum to 100% and stock-specific harvest estimates may not sum to the total harvest due to rounding error.

Note: Results for Cook Inlet subregional reporting groups are only reported if the overall contribution to the Cook Inlet group in the stratum or any contributing strata is greater than 5%.
Appendix A46.—Ayakulik-Halibut Bay (statistical areas 256-10, 15, 20, 25, 30), temporal stratum 2 (“Middle”; June 28–July 25; Harvest = 120,068; n = 377), 2016. Regional and subregional (within Chignik, Kodiak, and Cook Inlet) estimates of stock composition (%) and stock-specific harvest. Estimates include median, 90% credibility interval (CI), the probability that the group estimate is equal to zero (P = 0), mean, and standard deviation (SD).

<table>
<thead>
<tr>
<th>Reporting Group</th>
<th>Stock Composition</th>
<th>Stock-specific Harvest</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>90% CI</td>
<td>90% CI</td>
</tr>
<tr>
<td></td>
<td>Median</td>
<td>5%</td>
</tr>
<tr>
<td>West of Chignik</td>
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<td>1.7</td>
</tr>
<tr>
<td>Chignik</td>
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<td>1.1</td>
</tr>
<tr>
<td>Kodiak</td>
<td>55.7</td>
<td>60.2</td>
</tr>
<tr>
<td>Cook Inlet</td>
<td>42.2</td>
<td>46.9</td>
</tr>
<tr>
<td>Prince William Sound</td>
<td>0.0</td>
<td>3.0</td>
</tr>
<tr>
<td>South of Cape Suckling</td>
<td>0.3</td>
<td>3.7</td>
</tr>
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<td></td>
<td>Total</td>
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</table>

<table>
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<th>Chignik Black Lake</th>
<th>Chignik Lake</th>
<th>Kodiak Upper Station / Akalura</th>
<th>Ayakulik / Frazer</th>
<th>Karluk</th>
<th>Uganik</th>
<th>Northwest Kodiak</th>
<th>Afognak</th>
<th>Eastside Kodiak</th>
<th>Saltery</th>
<th>Cook Inlet Other Cook Inlet</th>
<th>Susitna</th>
<th>Kenai</th>
<th>Kasilof</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.0</td>
<td>1.0</td>
<td>0.9</td>
<td>0.76</td>
<td>0.1</td>
<td>0.4</td>
<td>0.0</td>
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<td>0.0</td>
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<td>2.5</td>
<td>1.6</td>
<td>1.1</td>
<td>1.1</td>
</tr>
<tr>
<td></td>
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<td>0.1</td>
<td>0.90</td>
<td>0.0</td>
<td>0.0</td>
<td>0.4</td>
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<td>0.92</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
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<td>0</td>
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<td>0.0</td>
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<td>0.13</td>
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<td>0.0</td>
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<td>0.0</td>
<td>0.0</td>
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</tr>
<tr>
<td></td>
<td>0.0</td>
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<td>0.92</td>
<td>0.0</td>
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<td>0.0</td>
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</tr>
<tr>
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<td>1.0</td>
<td>0.0</td>
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<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
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<td>0.0</td>
</tr>
</tbody>
</table>

Note: Stock composition estimates may not sum to 100% and stock-specific harvest estimates may not sum to the total harvest due to rounding error.

Note: Results for Cook Inlet subregional reporting groups are only reported if the overall contribution to the Cook Inlet group in the stratum or any contributing strata is greater than 5%.
Appendix A47.—Ayakulik-Halibut Bay (statistical areas 256-10, 15, 20, 25, 30), temporal stratum 3 (“Late”; July 26–August 29; Harvest = 33,721; \( n = 378 \)), 2016. Regional and subregional (within Chignik, Kodiak, and Cook Inlet) estimates of stock composition (%) and stock-specific harvest. Estimates include median, 90% credibility interval (CI), the probability that the group estimate is equal to zero (\( P = 0 \)), mean, and standard deviation (SD).

<table>
<thead>
<tr>
<th>Reporting Group</th>
<th>Stock Composition</th>
<th>Stock-specific Harvest</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Median 90% CI</td>
<td>Median 90% CI</td>
</tr>
<tr>
<td></td>
<td>5%    95%    P = 0</td>
<td>5%    95%    Mean    SD</td>
</tr>
<tr>
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<td>0.0 0.0   0.1</td>
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<td>Chignik</td>
<td>0.0 0.0   0.0 0.84</td>
<td>0.0 0.0   0.1</td>
</tr>
<tr>
<td>Kodiak</td>
<td>69.0 64.6 73.2 0.00</td>
<td>69.0 2.6</td>
</tr>
<tr>
<td>Cook Inlet</td>
<td>28.5 24.3 32.9 0.00</td>
<td>28.6 2.6</td>
</tr>
<tr>
<td>Prince William Sound</td>
<td>1.1 0.2   4.8 0.00</td>
<td>1.7 1.5</td>
</tr>
<tr>
<td>South of Cape Suckling</td>
<td>0.6 0.0   1.9 0.23</td>
<td>0.7 0.6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total</td>
</tr>
<tr>
<td></td>
<td></td>
<td>33,721</td>
</tr>
</tbody>
</table>

<table>
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<th>Chignik Black Lake</th>
<th>Chignik Lake</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.0 0.0   0.0 0.92</td>
<td>0.0 0.0   0.1</td>
</tr>
<tr>
<td></td>
<td>0.0 0.0   0.0 0.91</td>
<td>0.0 0.0   0.1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Kodiak Subregional</th>
<th>Upper Station / Akalura</th>
<th>Ayakulik / Frazer</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>8.8 5.9   12.3 0.00</td>
<td>6.0 5.6   9.0 0.00</td>
</tr>
<tr>
<td>Karluk</td>
<td>47.3 42.1 52.6 0.00</td>
<td>2.027 1.205 3.027</td>
</tr>
<tr>
<td>Uganik</td>
<td>0.0 0.0   0.1 0.85</td>
<td>0.0 0.0   0.1</td>
</tr>
<tr>
<td>Northwest Kodiak</td>
<td>0.0 0.0   0.0 0.92</td>
<td>0.0 0.0   0.1</td>
</tr>
<tr>
<td>Afognak</td>
<td>0.4 0.0   1.3 0.09</td>
<td>0.5 0.4   0.5</td>
</tr>
<tr>
<td>Eastside Kodiak</td>
<td>0.5 0.0   2.0 0.25</td>
<td>0.7 0.9   0.7</td>
</tr>
<tr>
<td>Saltery</td>
<td>5.3 3.0   8.0 0.00</td>
<td>5.4 1.5   5.4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cook Inlet Subregional</th>
<th>Other Cook Inlet</th>
<th>Susitna</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3.5 1.9   5.8 0.00</td>
<td>1.4 0.3   3.2 0.00</td>
</tr>
<tr>
<td></td>
<td>20.5 16.8 24.6 0.00</td>
<td>2.7 1.4   4.5 0.00</td>
</tr>
</tbody>
</table>

Note: Stock composition estimates may not sum to 100% and stock-specific harvest estimates may not sum to the total harvest due to rounding error.

Note: Results for Cook Inlet subregional reporting groups are only reported if the overall contribution to the Cook Inlet group in the stratum or any contributing strata is greater than 5%.
Appendix A48.—Ayakulik-Halibut Bay (statistical areas 256-10, 15, 20, 25, 30), 2016, all strata. Annual regional and subregional (within Chignik, Kodiak, and Cook Inlet) estimates of stock composition (%) and stock-specific harvest. Estimates include median, 90% credibility interval (CI), the probability that the group estimate is equal to zero (P = 0), mean, and standard deviation (SD).

<table>
<thead>
<tr>
<th>Reporting Group</th>
<th>Stock Composition</th>
<th>Stock-specific Harvest</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Median</td>
<td>90% CI</td>
</tr>
<tr>
<td>Regional</td>
<td></td>
<td></td>
</tr>
<tr>
<td>West of Chignik</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Chignik</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Kodiak</td>
<td>59.6</td>
<td>56.0</td>
</tr>
<tr>
<td>Cook Inlet</td>
<td>38.3</td>
<td>34.6</td>
</tr>
<tr>
<td>Prince William Sound</td>
<td>0.7</td>
<td>0.1</td>
</tr>
<tr>
<td>South of Cape Suckling</td>
<td>0.4</td>
<td>0.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chignik</td>
<td>Black Lake</td>
<td>0.0</td>
</tr>
<tr>
<td>Chignik Lake</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Kodiak</td>
<td>Upper Station / Akalura</td>
<td>2.6</td>
</tr>
<tr>
<td></td>
<td>Ayakulik / Frazer</td>
<td>39.5</td>
</tr>
<tr>
<td></td>
<td>Karluk</td>
<td>13.0</td>
</tr>
<tr>
<td></td>
<td>Uganik</td>
<td>1.0</td>
</tr>
<tr>
<td></td>
<td>Northwest Kodiak</td>
<td>0.0</td>
</tr>
<tr>
<td></td>
<td>Afognak</td>
<td>0.3</td>
</tr>
<tr>
<td></td>
<td>Eastside Kodiak</td>
<td>0.3</td>
</tr>
<tr>
<td></td>
<td>Saltery</td>
<td>2.4</td>
</tr>
<tr>
<td>Cook Inlet</td>
<td>Other Cook Inlet</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>Susitna</td>
<td>4.8</td>
</tr>
<tr>
<td></td>
<td>Kenai</td>
<td>27.6</td>
</tr>
<tr>
<td></td>
<td>Kasilof</td>
<td>2.5</td>
</tr>
<tr>
<td></td>
<td>Other Cook Inlet</td>
<td>0.0</td>
</tr>
<tr>
<td></td>
<td>Other Cook Inlet</td>
<td>0.0</td>
</tr>
<tr>
<td></td>
<td>Other Cook Inlet</td>
<td>2.6</td>
</tr>
<tr>
<td></td>
<td>Other Cook Inlet</td>
<td>39.5</td>
</tr>
<tr>
<td></td>
<td>Other Cook Inlet</td>
<td>13.0</td>
</tr>
<tr>
<td></td>
<td>Other Cook Inlet</td>
<td>1.0</td>
</tr>
<tr>
<td></td>
<td>Other Cook Inlet</td>
<td>0.0</td>
</tr>
<tr>
<td></td>
<td>Other Cook Inlet</td>
<td>0.3</td>
</tr>
<tr>
<td></td>
<td>Other Cook Inlet</td>
<td>0.3</td>
</tr>
<tr>
<td></td>
<td>Other Cook Inlet</td>
<td>2.4</td>
</tr>
<tr>
<td></td>
<td>Other Cook Inlet</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>Other Cook Inlet</td>
<td>4.8</td>
</tr>
<tr>
<td></td>
<td>Other Cook Inlet</td>
<td>27.6</td>
</tr>
<tr>
<td></td>
<td>Other Cook Inlet</td>
<td>2.5</td>
</tr>
</tbody>
</table>

Note: Stock composition estimates may not sum to 100% and stock-specific harvest estimates may not sum to the total harvest due to rounding error.

Note: Results for Cook Inlet subregional reporting groups are only reported if the overall contribution to the Cook Inlet group in the stratum or any contributing strata is greater than 5%.
Appendix A49. Alitak (statistical areas 257-10, 20, 50, 60, 70), temporal stratum 2 (“Middle”; June 28–July 25; Harvest = 115,998; n = 375), 2014. Regional and subregional (within Chignik, Kodiak, and Cook Inlet) estimates of stock composition (%) and stock-specific harvest. Estimates include median, 90% credibility interval (CI), the probability that the group estimate is equal to zero (P = 0), mean, and standard deviation (SD).

<table>
<thead>
<tr>
<th>Reporting Group</th>
<th>Stock Composition</th>
<th>Stock-specific Harvest</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>90% CI</td>
<td>90% CI</td>
</tr>
<tr>
<td></td>
<td>Median</td>
<td>5%</td>
</tr>
<tr>
<td><strong>Regional</strong></td>
<td><strong>Subregional</strong></td>
<td></td>
</tr>
<tr>
<td>West of Chignik</td>
<td>0.1</td>
<td>0.0</td>
</tr>
<tr>
<td>Chignik</td>
<td>1.1</td>
<td>0.0</td>
</tr>
<tr>
<td>Kodiak</td>
<td>64.9</td>
<td>60.6</td>
</tr>
<tr>
<td>Cook Inlet</td>
<td>32.3</td>
<td>28.1</td>
</tr>
<tr>
<td>Prince William Sound</td>
<td>0.7</td>
<td>0.1</td>
</tr>
<tr>
<td>South of Cape Suckling</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>115,998</strong></td>
<td></td>
</tr>
<tr>
<td>Chignik</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black Lake</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Chignik Lake</td>
<td>1.0</td>
<td>0.0</td>
</tr>
<tr>
<td><strong>Kodiak</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper Station / Akalura</td>
<td>4.6</td>
<td>2.8</td>
</tr>
<tr>
<td>Ayakulik / Frazer</td>
<td>56.5</td>
<td>52.1</td>
</tr>
<tr>
<td>Karluk</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Uganik</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Northwest Kodiak</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Afognak</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Eastside Kodiak</td>
<td>2.2</td>
<td>1.1</td>
</tr>
<tr>
<td>Saltery</td>
<td>0.8</td>
<td>0.0</td>
</tr>
<tr>
<td><strong>Cook Inlet</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Cook Inlet</td>
<td>3.7</td>
<td>2.0</td>
</tr>
<tr>
<td>Susitna</td>
<td>1.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Kenai</td>
<td>16.1</td>
<td>12.8</td>
</tr>
<tr>
<td>Kasilof</td>
<td>11.1</td>
<td>8.5</td>
</tr>
</tbody>
</table>

*Note:* Stock composition estimates may not sum to 100% and stock-specific harvest estimates may not sum to the total harvest due to rounding error.

*Note:* Results for Cook Inlet subregional reporting groups are only reported if the overall contribution to the Cook Inlet group in the stratum or any contributing strata is greater than 5%.
Appendix A50.—Alitak (statistical areas 257-10, 20, 50, 60, 70), temporal stratum 3 (“Late”; July 26–August 29; Harvest = 5,437; \( n = 375 \)), 2014. Regional and subregional (within Chignik, Kodiak, and Cook Inlet) estimates of stock composition (%) and stock-specific harvest. Estimates include median, 90% credibility interval (CI), the probability that the group estimate is equal to zero (\( P = 0 \)), mean, and standard deviation (SD).

<table>
<thead>
<tr>
<th>Reporting Group</th>
<th>Stock Composition</th>
<th>Stock-specific Harvest</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Median</td>
<td>90% CI</td>
</tr>
<tr>
<td>Regional Subregional</td>
<td></td>
<td></td>
</tr>
<tr>
<td>West of Chignik</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Chignik</td>
<td>0.4</td>
<td>0.0</td>
</tr>
<tr>
<td>Kodiak</td>
<td>92.7</td>
<td>90.2</td>
</tr>
<tr>
<td>Cook Inlet</td>
<td>5.2</td>
<td>3.4</td>
</tr>
<tr>
<td>Prince William Sound</td>
<td>0.2</td>
<td>0.0</td>
</tr>
<tr>
<td>South of Cape Suckling</td>
<td>1.1</td>
<td>0.4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Reporting Group</th>
<th>Stock Composition</th>
<th>Stock-specific Harvest</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Median</td>
<td>90% CI</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chignik</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Black Lake</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Chignik Lake</td>
<td>0.4</td>
<td>0.0</td>
</tr>
<tr>
<td>Upper Station / Akalura</td>
<td>63.4</td>
<td>58.8</td>
</tr>
<tr>
<td>Ayakulik / Frazer</td>
<td>25.1</td>
<td>21.1</td>
</tr>
<tr>
<td>Karluk</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Uganik</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Northwest Kodiak</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Afognak</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Eastside Kodiak</td>
<td>3.7</td>
<td>2.3</td>
</tr>
<tr>
<td>Saltery</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Other Cook Inlet</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Susitna</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Kenai</td>
<td>4.9</td>
<td>3.2</td>
</tr>
<tr>
<td>Kasilof</td>
<td>0.0</td>
<td>0.0</td>
</tr>
</tbody>
</table>

**Note:** Stock composition estimates may not sum to 100% and stock-specific harvest estimates may not sum to the total harvest due to rounding error.

**Note:** Results for Cook Inlet subregional reporting groups are only reported if the overall contribution to the Cook Inlet group in the stratum or any contributing strata is greater than 5%.
Appendix A51.–Alitak (statistical areas 257-10, 20, 50, 60, 70), 2014, all strata. Annual regional and subregional (within Chignik, Kodiak, and Cook Inlet) estimates of stock composition (%) and stock-specific harvest. Estimates include median, 90% credibility interval (CI), the probability that the group estimate is equal to zero (P = 0), mean, and standard deviation (SD).

<table>
<thead>
<tr>
<th>Reporting Group</th>
<th>Stock Composition</th>
<th>Stock-specific Harvest</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>90% CI</td>
<td>90% CI</td>
</tr>
<tr>
<td></td>
<td>Median 5% 95% P = 0</td>
<td>Mean SD</td>
</tr>
<tr>
<td>Regional Subregional</td>
<td></td>
<td></td>
</tr>
<tr>
<td>West of Chignik</td>
<td>0.1 0.0 2.3 0.26 0.6 0.8</td>
<td>139 0 2,746 694 976</td>
</tr>
<tr>
<td>Chignik</td>
<td>1.1 0.0 2.9 0.02 1.2 0.9</td>
<td>1,313 12 3,486 1,432 1,123</td>
</tr>
<tr>
<td>Kodiak</td>
<td>66.2 62.0 70.2 0.00 66.2 2.5</td>
<td>80,356 75,339 85,254 80,334 3,010</td>
</tr>
<tr>
<td>Cook Inlet</td>
<td>31.1 27.1 35.2 0.00 31.1 2.5</td>
<td>37,751 32,851 42,805 37,776 3,023</td>
</tr>
<tr>
<td>Prince William Sound</td>
<td>0.6 0.1 1.8 0.00 0.8 0.6</td>
<td>782 128 2,222 926 674</td>
</tr>
<tr>
<td>South of Cape Suckling</td>
<td>0.1 0.0 0.9 0.00 0.2 0.3</td>
<td>105 30 1,071 272 417</td>
</tr>
<tr>
<td>Black Lake</td>
<td>0.0 0.0 0.3 0.49 0.1 0.2</td>
<td>0 0 390 65 220</td>
</tr>
<tr>
<td>Chignik Lake</td>
<td>1.0 0.0 2.8 0.04 1.1 0.9</td>
<td>1,246 1 3,433 1,368 1,124</td>
</tr>
<tr>
<td>Upper Station / Akalura</td>
<td>7.3 5.5 9.5 0.00 7.4 1.2</td>
<td>8,829 6,712 11,579 8,946 1,486</td>
</tr>
<tr>
<td>Ayakulik / Frazer</td>
<td>55.1 50.9 59.3 0.00 55.1 2.5</td>
<td>66,942 61,797 71,950 66,919 3,091</td>
</tr>
<tr>
<td>Karluk</td>
<td>0.0 0.0 0.4 0.47 0.1 0.2</td>
<td>0 0 543 88 290</td>
</tr>
<tr>
<td>Uganik</td>
<td>0.0 0.0 1.0 0.30 0.2 0.4</td>
<td>15 0 1,251 239 458</td>
</tr>
<tr>
<td>Northwest Kodiak</td>
<td>0.0 0.0 0.2 0.51 0.0 0.1</td>
<td>0 0 224 37 129</td>
</tr>
<tr>
<td>Afognak</td>
<td>0.0 0.0 0.2 0.52 0.0 0.1</td>
<td>0 0 209 36 129</td>
</tr>
<tr>
<td>Eastside Kodiak</td>
<td>2.3 1.2 4.4 0.00 2.5 1.0</td>
<td>2,787 1,470 5,342 3,008 1,222</td>
</tr>
<tr>
<td>Saltery</td>
<td>0.8 0.0 2.1 0.04 0.9 0.7</td>
<td>942 1 2,541 1,062 792</td>
</tr>
<tr>
<td>Other Cook Inlet</td>
<td>3.5 1.9 5.6 0.00 3.6 1.1</td>
<td>4,248 2,278 6,767 4,350 1,371</td>
</tr>
<tr>
<td>Susitna</td>
<td>1.0 0.0 3.2 0.11 1.2 1.1</td>
<td>1,200 0 3,910 1,403 1,354</td>
</tr>
<tr>
<td>Kenai</td>
<td>15.6 12.4 19.1 0.00 15.6 2.0</td>
<td>18,912 15,085 23,158 18,989 2,458</td>
</tr>
<tr>
<td>Kasilof</td>
<td>10.7 8.1 13.6 0.00 10.7 1.7</td>
<td>12,933 9,833 16,570 13,034 2,054</td>
</tr>
</tbody>
</table>

Note: Stock composition estimates may not sum to 100% and stock-specific harvest estimates may not sum to the total harvest due to rounding error.

Note: Results for Cook Inlet subregional reporting groups are only reported if the overall contribution to the Cook Inlet group in the stratum or any contributing strata is greater than 5%.
Appendix A52.—Alitak (statistical areas 257-10, 20, 50, 60, 70), temporal stratum 1 (“Early”; June 1–July 3; Harvest = 28,723; \( n = 368 \)), 2015. Regional and subregional (within Chignik, Kodiak, and Cook Inlet) estimates of stock composition (%) and stock-specific harvest. Estimates include median, 90% credibility interval (CI), the probability that the group estimate is equal to zero (\( P = 0 \)), mean, and standard deviation (SD).

<table>
<thead>
<tr>
<th>Reporting Group</th>
<th>Stock Composition</th>
<th>Stock-specific Harvest</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Median 90% CI</td>
<td>Mean SD</td>
</tr>
<tr>
<td></td>
<td>5% 95% ( P = 0 )</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>5% 95%</td>
</tr>
</tbody>
</table>

|             | 90% CI | Median | Mean | SD      |
|             |        | 5%     | 95%  |        |
|             |        |        |      |        |
| West of Chignik | 0.2   | 0.0    | 2.3  | 0.27   |
| Chignik           | 1.1   | 0.3    | 2.6  | 0.00   |
| Kodiak           | 63.9  | 59.5   | 68.3 | 0.00   |
| Cook Inlet       | 26.8  | 22.1   | 31.9 | 0.00   |
| Prince William Sound | 7.2  | 4.1    | 10.8 | 0.00 |
| South of Cape Suckling | 0.0  | 0.0    | 0.4  | 0.53  |
| Chignik Lake     | 1.0   | 0.1    | 2.4  | 0.02   |
| Chignik          | 0.0   | 0.0    | 0.9  | 0.47   |
| Upper Station / Akalura | 6.3 | 4.2    | 8.9  | 0.00   |
| Ayakulik / Frazer | 53.4 | 48.8   | 57.9 | 0.00   |
| Karluk           | 0.4   | 0.0    | 2.5  | 0.20   |
| Uganik           | 0.0   | 0.0    | 1.1  | 0.40   |
| Northwest Kodiak | 0.0   | 0.0    | 0.4  | 0.51   |
| Afognak          | 0.8   | 0.2    | 2.0  | 0.00   |
| Eastside Kodiak  | 1.5   | 0.5    | 4.0  | 0.00   |
| Saltery          | 0.3   | 0.0    | 1.5  | 0.17   |
| Other Cook Inlet | 6.9   | 3.5    | 10.7 | 0.00   |
| Susitna          | 0.0   | 0.0    | 0.0  | 0.81   |
| Kenai            | 3.0   | 1.4    | 5.2  | 0.00   |
| Kasilof          | 16.7  | 13.4   | 20.4 | 0.00   |

**Note:** Stock composition estimates may not sum to 100% and stock-specific harvest estimates may not sum to the total harvest due to rounding error.

**Note:** Results for Cook Inlet subregional reporting groups are only reported if the overall contribution to the Cook Inlet group in the stratum or any contributing strata is greater than 5%.
Appendix A53—Alitak (statistical areas 257-10, 20, 50, 60, 70), temporal stratum 2 (“Middle”; July 4–August 1; Harvest = 165,894; n = 373), 2015. Regional and subregional (within Chignik, Kodiak, and Cook Inlet) estimates of stock composition (%) and stock-specific harvest. Estimates include median, 90% credibility interval (CI), the probability that the group estimate is equal to zero (P = 0), mean, and standard deviation (SD).

<table>
<thead>
<tr>
<th>Reporting Group</th>
<th>Stock Composition</th>
<th>Stock-specific Harvest</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Med 5% 95% P = 0</td>
<td>Med 5% 95% Mean SD</td>
</tr>
<tr>
<td><strong>Regional</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>West of Chignik</td>
<td>0.0  0.0  0.1 0.88 0.0  0.2</td>
<td>0 0 177 56 312</td>
</tr>
<tr>
<td>Chignik</td>
<td>0.0  0.0  0.3 0.79 0.0  0.2</td>
<td>0 0 436 71 312</td>
</tr>
<tr>
<td>Kodiak</td>
<td>21.7  18.1  25.6 0.00 21.7 2.3</td>
<td>35,957 30,019 42,412 36,055 3,776</td>
</tr>
<tr>
<td>Cook Inlet</td>
<td>77.0  72.9  80.7 0.00 76.9 2.4</td>
<td>127,717 121,009 133,837 127,611 3,900</td>
</tr>
<tr>
<td><strong>Subregional</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prince William Sound</td>
<td>1.1  0.4  2.6 0.00 1.3 0.7</td>
<td>1,857 690 4,231 2,092 1,214</td>
</tr>
<tr>
<td>South of Cape Suckling</td>
<td>0.0  0.0  0.0 0.92 0.0  0.1</td>
<td>0 0 3 9 92</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Med 5% 95% P = 0</th>
<th>Med 5% 95% Mean SD</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Chignik</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black Lake</td>
<td>0.0  0.0  0.0 0.88 0.0  0.1</td>
<td>0 0 77 32 191</td>
</tr>
<tr>
<td>Chignik Lake</td>
<td>0.0  0.0  0.0 0.89 0.0  0.1</td>
<td>0 0 52 39 248</td>
</tr>
<tr>
<td><strong>Kodiak</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper Station</td>
<td>0.0  0.0  0.5 0.50 0.1 0.2</td>
<td>0 0 878 140 368</td>
</tr>
<tr>
<td>Ayakulik / Frazier</td>
<td>17.2  14.1  20.6 0.00 17.3 2.0</td>
<td>28,542 23,392 34,215 28,632 3,292</td>
</tr>
<tr>
<td>Karluk</td>
<td>0.0  0.0  0.0 0.89 0.0  0.2</td>
<td>0 0 49 43 282</td>
</tr>
<tr>
<td>Uganiak</td>
<td>0.0  0.0  0.1 0.88 0.0  0.2</td>
<td>0 0 171 56 313</td>
</tr>
<tr>
<td>Northwest Kodiak</td>
<td>0.0  0.0  0.0 0.92 0.0  0.0</td>
<td>0 0 2 5 52</td>
</tr>
<tr>
<td>Afognak</td>
<td>0.0  0.0  0.0 0.92 0.0  0.0</td>
<td>0 0 2 6 63</td>
</tr>
<tr>
<td>Eastside Kodiak</td>
<td>3.4  2.1  5.3 0.00 3.5 1.0</td>
<td>5,691 3,462 8,814 5,860 1,662</td>
</tr>
<tr>
<td>Saltery</td>
<td>0.5  0.0  2.6 0.36 0.8 0.9</td>
<td>810 0 4,355 1,313 1,542</td>
</tr>
<tr>
<td><strong>Cook Inlet</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Cook Inlet</td>
<td>4.7  2.5  8.2 0.00 4.9 1.8</td>
<td>7,796 4,103 13,603 8,192 2,933</td>
</tr>
<tr>
<td>Susitna</td>
<td>8.9  5.8  12.7 0.00 9.1 2.1</td>
<td>14,845 9,647 21,095 15,041 3,493</td>
</tr>
<tr>
<td>Kenai</td>
<td>60.8  55.8  65.6 0.00 60.7 3.0</td>
<td>100,790 92,500 108,853 100,744 4,957</td>
</tr>
<tr>
<td>Kaslof</td>
<td>2.1  0.9  3.9 0.00 2.2 0.9</td>
<td>3,438 1,518 6,423 3,634 1,519</td>
</tr>
</tbody>
</table>

*Note:* Stock composition estimates may not sum to 100% and stock-specific harvest estimates may not sum to the total harvest due to rounding error.

*Note:* Results for Cook Inlet subregional reporting groups are only reported if the overall contribution to the Cook Inlet group in the stratum or any contributing strata is greater than 5%.
Appendix A54.—Alitak (statistical areas 257-10, 20, 50, 60, 70), temporal stratum 3 (“Late”; August 2–29; Harvest = 31,294; \( n = 373 \)), 2015. Regional and subregional (within Chignik, Kodiak, and Cook Inlet) estimates of stock composition (%) and stock-specific harvest. Estimates include median, 90% credibility interval (CI), the probability that the group estimate is equal to zero (P = 0), mean, and standard deviation (SD).

<table>
<thead>
<tr>
<th>Reporting Group</th>
<th>Stock Composition</th>
<th>Stock-specific Harvest</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>90% CI</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Median 5% 95% P = 0</td>
<td>Mean SD 90% CI Mean SD</td>
</tr>
<tr>
<td>Regional Subregional</td>
<td></td>
<td></td>
</tr>
<tr>
<td>West of Chignik</td>
<td>0.0 0.0 0.0 0.90 0.0 0.1</td>
<td>0 0 2 4 28</td>
</tr>
<tr>
<td>Chignik</td>
<td>0.0 0.0 0.0 0.83 0.0 0.1</td>
<td>0 0 12 5 30</td>
</tr>
<tr>
<td>Kodiak</td>
<td>96.1 93.5 97.9 0.00 96.0 1.3</td>
<td>30,079 29,272 30,635 30,032 418</td>
</tr>
<tr>
<td>Cook Inlet</td>
<td>2.8 1.3 4.7 0.00 2.9 1.0</td>
<td>864 419 1,475 895 324</td>
</tr>
<tr>
<td>Prince William Sound</td>
<td>0.5 0.1 2.3 0.01 0.7 0.7</td>
<td>160 21 704 229 225</td>
</tr>
<tr>
<td>South of Cape Suckling</td>
<td>0.0 0.0 2.6 0.71 0.4 0.9</td>
<td>0 0 803 130 283</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total 31,294</td>
</tr>
<tr>
<td>Chignik</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black Lake</td>
<td>0.0 0.0 0.0 0.91 0.0 0.1</td>
<td>0 0 1 3 25</td>
</tr>
<tr>
<td>Chignik Lake</td>
<td>0.0 0.0 0.0 0.92 0.0 0.1</td>
<td>0 0 1 2 16</td>
</tr>
<tr>
<td>Kodiak</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper Station / Akalura</td>
<td>34.3 29.8 38.9 0.00 34.3 2.8</td>
<td>10,719 9,326 12,161 10,731 861</td>
</tr>
<tr>
<td>Ayakulik / Frazer</td>
<td>37.2 32.6 41.9 0.00 37.2 2.8</td>
<td>11,648 10,216 13,115 11,655 883</td>
</tr>
<tr>
<td>Karluk</td>
<td>0.0 0.0 2.3 0.80 0.3 0.9</td>
<td>0 0 721 86 280</td>
</tr>
<tr>
<td>Uganik</td>
<td>0.0 0.0 1.5 0.67 0.3 0.6</td>
<td>0 0 480 83 175</td>
</tr>
<tr>
<td>Northwest Kodiak</td>
<td>0.0 0.0 1.3 0.66 0.2 0.5</td>
<td>0 0 421 77 153</td>
</tr>
<tr>
<td>Afognak</td>
<td>0.0 0.0 0.92 0.0 0.0</td>
<td>0 0 0 1 12</td>
</tr>
<tr>
<td>Eastside Kodiak</td>
<td>16.4 13.0 20.3 0.00 16.5 2.2</td>
<td>5,127 4,063 6,343 5,154 693</td>
</tr>
<tr>
<td>Saltery</td>
<td>7.1 4.7 10.0 0.00 7.2 1.6</td>
<td>2,214 1,464 3,127 2,245 507</td>
</tr>
<tr>
<td>Cook Inlet</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Cook Inlet</td>
<td>* * * * * * * *</td>
<td>* * * * * * * *</td>
</tr>
<tr>
<td>Susitna</td>
<td>* * * * * * * *</td>
<td>* * * * * * * *</td>
</tr>
<tr>
<td>Kenai</td>
<td>* * * * * * * *</td>
<td>* * * * * * * *</td>
</tr>
<tr>
<td>Kasilof</td>
<td>* * * * * * * *</td>
<td>* * * * * * * *</td>
</tr>
</tbody>
</table>

Note: Stock composition estimates may not sum to 100% and stock-specific harvest estimates may not sum to the total harvest due to rounding error.

Note: Results for Cook Inlet subregional reporting groups are only reported if the overall contribution to the Cook Inlet group in the stratum or any contributing strata is greater than 5%.
Appendix A55.—Alitak (statistical areas 257-10, 20, 50, 60, 70), 2015, all strata. Annual regional and subregional (within Chignik, Kodiak, and Cook Inlet) estimates of stock composition (%) and stock-specific harvest. Estimates include median, 90% credibility interval (CI), the probability that the group estimate is equal to zero ($P = 0$), mean, and standard deviation (SD).

<table>
<thead>
<tr>
<th>Reporting Group</th>
<th>Stock Composition</th>
<th>Stock-specific Harvest</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>90% CI</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Median</td>
<td>5%</td>
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<tr>
<td>West of Chignik</td>
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<td></td>
</tr>
<tr>
<td>Chignik</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chignik Lake</td>
<td>0.1</td>
<td>0.0</td>
</tr>
<tr>
<td>Chignik Lake</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Kodiak</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper Station / Akalura</td>
<td>5.6</td>
<td>4.9</td>
</tr>
<tr>
<td>Ayakulik / Frazer</td>
<td>24.6</td>
<td>22.1</td>
</tr>
<tr>
<td>Karluk</td>
<td>0.1</td>
<td>0.0</td>
</tr>
<tr>
<td>Uganik</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Northwest Kodiak</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Afognak</td>
<td>0.1</td>
<td>0.0</td>
</tr>
<tr>
<td>Eastside Kodiak</td>
<td>5.0</td>
<td>3.9</td>
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<td>Saltery</td>
<td>1.5</td>
<td>0.8</td>
</tr>
<tr>
<td>Cook Inlet</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Cook Inlet</td>
<td>4.4</td>
<td>2.6</td>
</tr>
<tr>
<td>Susitna</td>
<td>6.6</td>
<td>4.3</td>
</tr>
<tr>
<td>Kenai</td>
<td>45.3</td>
<td>41.6</td>
</tr>
<tr>
<td>Kasilof</td>
<td>3.7</td>
<td>2.7</td>
</tr>
</tbody>
</table>

Note: Stock composition estimates may not sum to 100% and stock-specific harvest estimates may not sum to the total harvest due to rounding error.

Note: Results for Cook Inlet subregional reporting groups are only reported if the overall contribution to the Cook Inlet group in the stratum or any contributing strata is greater than 5%.
Appendix A56.—Alitak (statistical areas 257-10, 20, 50, 60, 70), temporal stratum 1 (“Early”; June 1–27; Harvest = 11,118; n = 375), 2016.

Regional and subregional (within Chignik, Kodiak, and Cook Inlet) estimates of stock composition (%) and stock-specific harvest. Estimates include median, 90% credibility interval (CI), the probability that the group estimate is equal to zero (P = 0), mean, and standard deviation (SD).

<table>
<thead>
<tr>
<th>Reporting Group</th>
<th>Stock Composition</th>
<th>Stock-specific Harvest</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Median 90% CI P = 0</td>
<td>Mean SD</td>
</tr>
<tr>
<td></td>
<td>5%</td>
<td>95%</td>
</tr>
<tr>
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<td>0.0</td>
</tr>
<tr>
<td>Chignik</td>
<td>2.1</td>
<td>1.0</td>
</tr>
<tr>
<td>Kodiak</td>
<td>74.3</td>
<td>70.2</td>
</tr>
<tr>
<td>Cook Inlet</td>
<td>23.3</td>
<td>19.4</td>
</tr>
<tr>
<td>Prince William Sound</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>South of Cape Suckling</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chignik</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black Lake</td>
<td>2.1</td>
<td>1.0</td>
</tr>
<tr>
<td>Chignik Lake</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Kodiak</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper Station / Akalura</td>
<td>13.9</td>
<td>10.9</td>
</tr>
<tr>
<td>Ayakulik / Frazer</td>
<td>54.2</td>
<td>49.5</td>
</tr>
<tr>
<td>Karluk</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Uganik</td>
<td>2.2</td>
<td>0.8</td>
</tr>
<tr>
<td>Northwest Kodiak</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Afognak</td>
<td>0.5</td>
<td>0.1</td>
</tr>
<tr>
<td>Eastside Kodiak</td>
<td>2.4</td>
<td>1.3</td>
</tr>
<tr>
<td>Saltery</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Cook Inlet</td>
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<td></td>
</tr>
<tr>
<td>Other Cook Inlet</td>
<td>10.3</td>
<td>7.0</td>
</tr>
<tr>
<td>Susina</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Kenai</td>
<td>6.9</td>
<td>4.6</td>
</tr>
<tr>
<td>Kasilof</td>
<td>5.6</td>
<td>3.6</td>
</tr>
</tbody>
</table>

*Note:* Stock composition estimates may not sum to 100% and stock-specific harvest estimates may not sum to the total harvest due to rounding error.

*Note:* Results for Cook Inlet subregional reporting groups are only reported if the overall contribution to the Cook Inlet group in the stratum or any contributing strata is greater than 5%.
Appendix A57.—Alitak (statistical areas 257-10, 20, 50, 60, 70), temporal stratum 2 (“Middle”; June 28–July 25; Harvest = 61,930; n = 372), 2016. Regional and subregional (within Chignik, Kodiak, and Cook Inlet) estimates of stock composition (%) and stock-specific harvest. Estimates include median, 90% credibility interval (CI), the probability that the group estimate is equal to zero (P = 0), mean, and standard deviation (SD).

<table>
<thead>
<tr>
<th>Stock Composition</th>
<th>Stock-specific Harvest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reporting Group</td>
<td>Regional</td>
</tr>
<tr>
<td>West of Chignik</td>
<td></td>
</tr>
<tr>
<td>Chignik</td>
<td></td>
</tr>
<tr>
<td>Kodiak</td>
<td></td>
</tr>
<tr>
<td>Cook Inlet</td>
<td></td>
</tr>
<tr>
<td>Prince William Sound</td>
<td></td>
</tr>
<tr>
<td>South of Cape Suckling</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Stock Composition</th>
<th>Stock-specific Harvest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reporting Group</td>
<td>Regional</td>
</tr>
<tr>
<td>Chignik Black Lake</td>
<td></td>
</tr>
<tr>
<td>Chignik Lake</td>
<td></td>
</tr>
<tr>
<td>Chignik Lake</td>
<td>Upper Station / Akalura</td>
</tr>
<tr>
<td>Chignik Lake</td>
<td>Ayakulik / Frazer</td>
</tr>
<tr>
<td>Karuk</td>
<td></td>
</tr>
<tr>
<td>Uganik</td>
<td></td>
</tr>
<tr>
<td>Northwest Kodiak</td>
<td></td>
</tr>
<tr>
<td>Afognak</td>
<td></td>
</tr>
<tr>
<td>Eastside Kodiak</td>
<td></td>
</tr>
<tr>
<td>Saltery</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
</tr>
</tbody>
</table>

| Chignik Lake      | Other Cook Inlet       |             | 3.0    | 1.0 | 5.8 | 0.00 | 3.1  | 1.5 |
| Susitna           |                       |             | 5.5    | 2.7 | 9.0 | 0.00 | 5.6  | 1.9 |
| Kenai             |                       |             | 55.0   | 49.9 | 60.0 | 0.00 | 55.0 | 3.1 |
| Kasilof           |                       |             | 2.6    | 1.0 | 4.8 | 0.01 | 2.7  | 1.2 |

Note: Stock composition estimates may not sum to 100% and stock-specific harvest estimates may not sum to the total harvest due to rounding error. Results for Cook Inlet subregional reporting groups are only reported if the overall contribution to the Cook Inlet group in the stratum or any contributing strata is greater than 5%.
Appendix A58.—Alitak (statistical areas 257-10, 20, 50, 60, 70), temporal stratum 3 (“Late”; July 26–August 29; Harvest = 21,243; n = 368), 2016. Regional and subregional (within Chignik, Kodiak, and Cook Inlet) estimates of stock composition (%) and stock-specific harvest. Estimates include median, 90% credibility interval (CI), the probability that the group estimate is equal to zero (P = 0), mean, and standard deviation (SD).

<table>
<thead>
<tr>
<th>Reporting Group</th>
<th>Stock Composition</th>
<th>Stock-specific Harvest</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>90% CI</td>
<td>90% CI</td>
</tr>
<tr>
<td>Regional Subregional</td>
<td>Median 5% 95% P = 0 Mean SD</td>
<td>Median 5% 95% Mean SD</td>
</tr>
<tr>
<td>West of Chignik</td>
<td>0.0 0.0 0.7 0.79 0.1 0.3</td>
<td>0 0 148 20 63</td>
</tr>
<tr>
<td>Chignik</td>
<td>0.0 0.0 0.9 0.68 0.1 0.4</td>
<td>0 0 190 26 78</td>
</tr>
<tr>
<td>Kodiak</td>
<td>92.3 89.5 94.6 0.00 92.2 1.6</td>
<td>19,612 19,014 20,097 19,591 332</td>
</tr>
<tr>
<td>Cook Inlet</td>
<td>7.1 4.9 9.8 0.00 7.2 1.5</td>
<td>1,517 1,046 2,092 1,537 319</td>
</tr>
<tr>
<td>Prince William Sound</td>
<td>0.2 0.0 1.0 0.07 0.3 0.3</td>
<td>42 0 204 64 70</td>
</tr>
<tr>
<td>South of Cape Suckling</td>
<td>0.0 0.0 0.1 0.87 0.0 0.1</td>
<td>0 0 29 6 28</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>Total 21,243</td>
</tr>
<tr>
<td>Chignik</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black Lake</td>
<td>0.0 0.0 0.0 0.85 0.0 0.1</td>
<td>0 0 6 3 18</td>
</tr>
<tr>
<td>Chignik Lake</td>
<td>0.0 0.0 0.9 0.80 0.1 0.4</td>
<td>0 0 181 23 76</td>
</tr>
<tr>
<td>Upper Station / Akalura</td>
<td>65.5 60.8 70.1 0.00 65.5 2.8</td>
<td>13,918 12,915 14,882 13,910 599</td>
</tr>
<tr>
<td>Ayakulik / Frazer</td>
<td>13.1 9.7 16.8 0.00 13.1 2.2</td>
<td>2,777 2,067 3,570 2,792 459</td>
</tr>
<tr>
<td>Karluk</td>
<td>4.4 2.1 7.5 0.01 4.5 1.7</td>
<td>936 446 1,589 965 354</td>
</tr>
<tr>
<td>Uganik</td>
<td>0.0 0.0 0.0 0.91 0.0 0.1</td>
<td>0 0 1 2 14</td>
</tr>
<tr>
<td>Northwest Kodiak</td>
<td>0.0 0.0 0.0 0.91 0.0 0.1</td>
<td>0 0 1 1 12</td>
</tr>
<tr>
<td>Afognak</td>
<td>0.0 0.0 0.0 0.91 0.0 0.1</td>
<td>0 0 1 1 11</td>
</tr>
<tr>
<td>Eastside Kodiak</td>
<td>0.9 0.3 2.4 0.00 1.0 0.7</td>
<td>185 56 509 221 153</td>
</tr>
<tr>
<td>Saltery</td>
<td>7.9 5.5 10.7 0.00 8.0 1.6</td>
<td>1,681 1,174 2,282 1,698 337</td>
</tr>
<tr>
<td>Cook Inlet</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Cook Inlet</td>
<td>0.5 0.1 1.8 0.00 0.7 0.6</td>
<td>114 13 375 144 118</td>
</tr>
<tr>
<td>Susitna</td>
<td>0.3 0.0 1.7 0.06 0.5 0.6</td>
<td>62 0 354 104 122</td>
</tr>
<tr>
<td>Kenai</td>
<td>5.5 3.5 8.1 0.00 5.6 1.4</td>
<td>1,178 753 1,715 1,198 294</td>
</tr>
<tr>
<td>Kaslof</td>
<td>0.3 0.0 1.5 0.26 0.4 0.5</td>
<td>54 0 310 91 109</td>
</tr>
</tbody>
</table>

Note: Stock composition estimates may not sum to 100% and stock-specific harvest estimates may not sum to the total harvest due to rounding error.
Note: Results for Cook Inlet subregional reporting groups are only reported if the overall contribution to the Cook Inlet group in the stratum or any contributing strata is greater than 5%.
Appendix A59.—Alitak (statistical areas 257-10, 20, 50, 60, 70), 2016, all strata. Annual regional and subregional (within Chignik, Kodiak, and Cook Inlet) estimates of stock composition (%) and stock-specific harvest. Estimates include median, 90% credibility interval (CI), the probability that the group estimate is equal to zero (P = 0), mean, and standard deviation (SD).

<table>
<thead>
<tr>
<th>Reporting Group</th>
<th>Regional</th>
<th>Subregional</th>
<th>Stock Composition</th>
<th>Stock-specific Harvest</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>90% CI</td>
<td>90% CI</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Median 5% 95% P = 0</td>
<td>Mean SD</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Mean SD</td>
<td>Mean SD</td>
</tr>
<tr>
<td>West of Chignik</td>
<td></td>
<td></td>
<td>0.0 0.0 0.2 0.62 0.0 0.1</td>
<td>0 0 176 29 74</td>
</tr>
<tr>
<td>Chignik</td>
<td></td>
<td></td>
<td>2.1 1.1 3.7 0.00 2.2 0.8</td>
<td>1,986 1,026 3,448 2,079 745</td>
</tr>
<tr>
<td>Kodiak</td>
<td></td>
<td></td>
<td>49.2 46.5 52.0 0.00 49.2 1.7</td>
<td>46,380 43,821 49,038 46,398 1,583</td>
</tr>
<tr>
<td>Cook Inlet</td>
<td></td>
<td></td>
<td>48.0 45.0 50.9 0.00 48.0 1.8</td>
<td>45,279 42,421 47,990 45,250 1,694</td>
</tr>
<tr>
<td>Prince William Sound</td>
<td></td>
<td></td>
<td>0.4 0.1 1.1 0.00 0.5 0.3</td>
<td>383 108 991 450 315</td>
</tr>
<tr>
<td>South of Cape Suckling</td>
<td></td>
<td></td>
<td>0.0 0.0 0.5 0.70 0.1 0.4</td>
<td>0 0 430 86 392</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Total 94,291</td>
</tr>
<tr>
<td>Chignik</td>
<td>Black Lake</td>
<td></td>
<td>1.5 0.2 2.8 0.00 1.5 0.8</td>
<td>1,414 215 2,678 1,413 752</td>
</tr>
<tr>
<td>Chignik Lake</td>
<td></td>
<td></td>
<td>0.0 0.0 2.8 0.42 0.7 1.0</td>
<td>16 0 2,650 666 961</td>
</tr>
<tr>
<td>Kodiak</td>
<td>Upper Station / Akalura</td>
<td></td>
<td>18.3 16.8 19.9 0.00 18.3 0.9</td>
<td>17,264 15,868 18,804 17,291 894</td>
</tr>
<tr>
<td></td>
<td>Ayakulik / Frazer</td>
<td></td>
<td>26.1 23.4 28.9 0.00 26.1 1.7</td>
<td>24,579 22,101 27,209 24,609 1,557</td>
</tr>
<tr>
<td></td>
<td>Karluk</td>
<td></td>
<td>1.1 0.5 1.8 0.00 1.1 0.4</td>
<td>1,014 488 1,730 1,048 387</td>
</tr>
<tr>
<td></td>
<td>Uganik</td>
<td></td>
<td>0.3 0.1 0.5 0.00 0.3 0.2</td>
<td>253 93 506 274 150</td>
</tr>
<tr>
<td></td>
<td>Northwest Kodiak</td>
<td></td>
<td>0.0 0.0 0.80 0.00 0.0 0.0</td>
<td>0 0 14 4 23</td>
</tr>
<tr>
<td></td>
<td>Afognak</td>
<td></td>
<td>0.1 0.0 0.2 0.01 0.1 0.1</td>
<td>58 9 171 70 54</td>
</tr>
<tr>
<td></td>
<td>Eastside Kodiak</td>
<td></td>
<td>1.4 0.8 2.2 0.00 1.4 0.4</td>
<td>1,289 755 2,108 1,342 419</td>
</tr>
<tr>
<td></td>
<td>Saltery</td>
<td></td>
<td>1.8 1.3 2.6 0.00 1.9 0.4</td>
<td>1,722 1,194 2,448 1,760 398</td>
</tr>
<tr>
<td>Cook Inlet</td>
<td>Other Cook Inlet</td>
<td></td>
<td>3.3 1.9 5.2 0.00 3.4 1.0</td>
<td>3,143 1,824 4,915 3,225 946</td>
</tr>
<tr>
<td></td>
<td>Susitna</td>
<td></td>
<td>3.7 1.9 6.0 0.00 3.8 1.3</td>
<td>3,529 1,775 5,687 3,603 1,190</td>
</tr>
<tr>
<td></td>
<td>Kenai</td>
<td></td>
<td>38.2 34.8 41.6 0.00 38.2 2.1</td>
<td>36,045 32,820 39,211 36,036 1,945</td>
</tr>
<tr>
<td></td>
<td>Kasilof</td>
<td></td>
<td>2.5 1.4 4.0 0.00 2.5 0.8</td>
<td>2,321 1,275 3,725 2,386 751</td>
</tr>
</tbody>
</table>

*Note:* Stock composition estimates may not sum to 100% and stock-specific harvest estimates may not sum to the total harvest due to rounding error.

*Note:* Results for Cook Inlet subregional reporting groups are only reported if the overall contribution to the Cook Inlet group in the stratum or any contributing strata is greater than 5%.
Appendix A60. –Igvak (statistical areas 262-75, 80, 90, 95), temporal stratum 2 (“Middle”; July 4–August 1; Harvest = 6,595; \( n = 370 \)), 2015. Regional and subregional (within Chignik, Kodiak, and Cook Inlet) estimates of stock composition (%) and stock-specific harvest. Estimates include median, 90% credibility interval (CI), the probability that the group estimate is equal to zero (\( P = 0 \)), mean, and standard deviation (SD).

<table>
<thead>
<tr>
<th>Reporting Group</th>
<th>Stock Composition</th>
<th>Stock-specific Harvest</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Median</td>
<td>5%</td>
</tr>
<tr>
<td><strong>Regional</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>West of Chignik</td>
<td>1.4</td>
<td>0.4</td>
</tr>
<tr>
<td>Chignik</td>
<td>31.2</td>
<td>26.8</td>
</tr>
<tr>
<td>Kodiak</td>
<td>6.9</td>
<td>4.2</td>
</tr>
<tr>
<td>Cook Inlet</td>
<td>54.0</td>
<td>48.7</td>
</tr>
<tr>
<td>Prince William Sound</td>
<td>5.8</td>
<td>2.7</td>
</tr>
<tr>
<td>South of Cape Suckling</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Chignik</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black Lake</td>
<td>11.0</td>
<td>7.2</td>
</tr>
<tr>
<td>Chignik Lake</td>
<td>20.1</td>
<td>15.2</td>
</tr>
<tr>
<td><strong>Kodiak</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper Station / Akalura</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Ayakulik / Frazer</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Karluk</td>
<td>2.3</td>
<td>0.7</td>
</tr>
<tr>
<td>Uganik</td>
<td>0.8</td>
<td>0.0</td>
</tr>
<tr>
<td>Northwest Kodiak</td>
<td>1.1</td>
<td>0.2</td>
</tr>
<tr>
<td>Afognak</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Eastside Kodiak</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Saltery</td>
<td>1.8</td>
<td>0.6</td>
</tr>
<tr>
<td><strong>Cook Inlet</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Cook Inlet</td>
<td>19.2</td>
<td>15.0</td>
</tr>
<tr>
<td>Susina</td>
<td>3.3</td>
<td>0.9</td>
</tr>
<tr>
<td>Kenai</td>
<td>23.7</td>
<td>19.2</td>
</tr>
<tr>
<td>Kasilof</td>
<td>7.4</td>
<td>5.0</td>
</tr>
</tbody>
</table>

**Note:** Stock composition estimates may not sum to 100% and stock-specific harvest estimates may not sum to the total harvest due to rounding error.

**Note:** Results for Cook Inlet subregional reporting groups are only reported if the overall contribution to the Cook Inlet group in the stratum or any contributing strata is greater than 5%.
Appendix A61.—Igvak (statistical areas 262-75, 80, 90, 95), 2015, all strata. Annual regional and subregional (within Chignik, Kodiak, and Cook Inlet) estimates of stock composition (%) and stock-specific harvest. Estimates include median, 90% credibility interval (CI), the probability that the group estimate is equal to zero ($P = 0$), mean, and standard deviation (SD).

<table>
<thead>
<tr>
<th>Reporting Group</th>
<th>Stock Composition</th>
<th>Stock-specific Harvest</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Median</td>
<td>90% CI</td>
</tr>
<tr>
<td>Regional</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subregional</td>
<td></td>
<td></td>
</tr>
<tr>
<td>West of Chignik</td>
<td>1.4</td>
<td>0.4 - 3.9</td>
</tr>
<tr>
<td>Chignik</td>
<td>31.2</td>
<td>26.8 - 36.0</td>
</tr>
<tr>
<td>Kodiak</td>
<td>6.9</td>
<td>4.2 - 10.2</td>
</tr>
<tr>
<td>Cook Inlet</td>
<td>54.0</td>
<td>48.7 - 59.2</td>
</tr>
<tr>
<td>Prince William Sound</td>
<td>5.8</td>
<td>2.7 - 9.4</td>
</tr>
<tr>
<td>South of Cape Suckling</td>
<td>0.0</td>
<td>0.0 - 1.4</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chignik Black Lake</td>
<td>11.0</td>
<td>7.2 - 15.5</td>
</tr>
<tr>
<td>Chignik Lake</td>
<td>20.1</td>
<td>15.2 - 25.3</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kodiak</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper Station / Akalura</td>
<td>0.0</td>
<td>0.0 - 0.3</td>
</tr>
<tr>
<td>Ayakulik / Frazer</td>
<td>0.0</td>
<td>0.0 - 0.6</td>
</tr>
<tr>
<td>Karluk</td>
<td>2.3</td>
<td>0.7 - 4.5</td>
</tr>
<tr>
<td>Uganik</td>
<td>0.8</td>
<td>0.0 - 2.9</td>
</tr>
<tr>
<td>Northwest Kodiak</td>
<td>1.1</td>
<td>0.2 - 2.7</td>
</tr>
<tr>
<td>Afognak</td>
<td>0.0</td>
<td>0.0 - 0.8</td>
</tr>
<tr>
<td>Eastside Kodiak</td>
<td>0.0</td>
<td>0.0 - 0.8</td>
</tr>
<tr>
<td>Saltery</td>
<td>1.8</td>
<td>0.6 - 3.7</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cook Inlet</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Cook Inlet</td>
<td>19.2</td>
<td>15.0 - 23.7</td>
</tr>
<tr>
<td>Susitna</td>
<td>3.3</td>
<td>0.9 - 6.6</td>
</tr>
<tr>
<td>Kenai</td>
<td>23.7</td>
<td>19.2 - 28.5</td>
</tr>
<tr>
<td>Kasilof</td>
<td>7.4</td>
<td>5.0 - 10.4</td>
</tr>
</tbody>
</table>

Note: Stock composition estimates may not sum to 100% and stock-specific harvest estimates may not sum to the total harvest due to rounding error.

Note: Results for Cook Inlet subregional reporting groups are only reported if the overall contribution to the Cook Inlet group in the stratum or any contributing strata is greater than 5%.
Appendix A62—Igvak (statistical areas 262-75, 80, 90, 95), temporal stratum 1 (“Early”; June 1–27; Harvest = 154,318; \(n = 376\)), 2016. Regional and subregional (within Chignik, Kodiak, and Cook Inlet) estimates of stock composition (%) and stock-specific harvest. Estimates include median, 90% credibility interval (CI), the probability that the group estimate is equal to zero (\(P = 0\)), mean, and standard deviation (SD).

<table>
<thead>
<tr>
<th>Reporting Group</th>
<th>Stock Composition</th>
<th>Stock-specific Harvest</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>90% CI</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Median 5% 95% P = 0 Mean SD</td>
<td>Median 5% 95% Mean SD</td>
</tr>
<tr>
<td>Regional</td>
<td>Subregional</td>
<td></td>
</tr>
<tr>
<td>West of Chignik</td>
<td>7.7 5.3 10.6 0.00 7.8 1.6</td>
<td>11,843 8,114 16,357 11,987 2,521</td>
</tr>
<tr>
<td>Chignik</td>
<td>74.1 69.8 78.1 0.00 74.1 2.5</td>
<td>114,412 107,790 120,550 114,324 3,887</td>
</tr>
<tr>
<td>Kodiak</td>
<td>9.5 6.7 12.9 0.00 9.6 1.9</td>
<td>14,660 10,354 19,905 14,834 2,914</td>
</tr>
<tr>
<td>Cook Inlet</td>
<td>6.0 3.9 8.5 0.00 6.1 1.4</td>
<td>9,247 6,090 13,080 9,366 2,126</td>
</tr>
<tr>
<td>Prince William Sound</td>
<td>2.1 0.4 4.3 0.00 2.2 1.2</td>
<td>3,307 687 6,690 3,451 1,806</td>
</tr>
<tr>
<td>South of Cape Suckling</td>
<td>0.0 0.0 1.3 0.39 0.2 0.5</td>
<td>4 0 1,932 356 831</td>
</tr>
</tbody>
</table>

Note: Stock composition estimates may not sum to 100% and stock-specific harvest estimates may not sum to the total harvest due to rounding error.

Note: Results for Cook Inlet subregional reporting groups are only reported if the overall contribution to the Cook Inlet group in the stratum or any contributing strata is greater than 5%.
Appendix A63.–Igvak (statistical areas 262-75, 80, 90, 95), temporal stratum 2 (“Middle”; June 28–July 25; Harvest = 177,315; \( n = 374 \)), 2016. Regional and subregional (within Chignik, Kodiak, and Cook Inlet) estimates of stock composition (%) and stock-specific harvest. Estimates include median, 90% credibility interval (CI), the probability that the group estimate is equal to zero (\( P = 0 \)), mean, and standard deviation (SD).

<table>
<thead>
<tr>
<th>Reporting Group</th>
<th>Stock Composition</th>
<th>Stock-specific Harvest</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Median</td>
<td>90% CI</td>
</tr>
<tr>
<td>West of Chignik</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chignik</td>
<td>5.6</td>
<td>3.6</td>
</tr>
<tr>
<td>Kodiak</td>
<td>0.8</td>
<td>0.2</td>
</tr>
<tr>
<td>Cook Inlet</td>
<td>93.2</td>
<td>90.3</td>
</tr>
<tr>
<td>Prince William Sound</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>South of Cape Suckling</td>
<td>0.0</td>
<td>0.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Stock Composition</th>
<th>Stock-specific Harvest</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Median</td>
</tr>
<tr>
<td>Total</td>
<td>177,315</td>
</tr>
</tbody>
</table>

| Chignik           |        |        |        |      |    |
| Black Lake        | 0.2    | 0.0    | 1.3    | 0.00 | 0.4 | 0.4 | 440    | 12     | 2,326 | 709  | 792 |
| Chignik Lake      | 5.2    | 3.2    | 7.8    | 0.00 | 5.3 | 1.4 | 9,300  | 5,706  | 13,848 | 9,475 | 2,486 |

| Kodiak            |        |        |        |      |    |
| Upper Station / Akalura | 0.0   | 0.0    | 0.0    | 0.91 | 0.0 | 0.1 | 0      | 0      | 4     | 10   | 90  |
| Ayakulik / Frazer | 0.6    | 0.0    | 1.6    | 0.10 | 0.6 | 0.5 | 1,008  | 0      | 2,860 | 1,151 | 911 |
| Karluk            | 0.0    | 0.0    | 1.0    | 0.56 | 0.2 | 0.4 | 0      | 0      | 1,784 | 267  | 692 |
| Uganik            | 0.0    | 0.0    | 0.1    | 0.87 | 0.0 | 0.2 | 0      | 0      | 118   | 58   | 353 |
| Northwest Kodiak  | 0.0    | 0.0    | 0.0    | 0.92 | 0.0 | 0.0 | 0      | 0      | 3     | 8    | 75  |
| Afognak           | 0.0    | 0.0    | 0.0    | 0.91 | 0.0 | 0.0 | 0      | 0      | 4     | 10   | 87  |
| Eastside Kodiak   | 0.0    | 0.0    | 0.7    | 0.80 | 0.1 | 0.3 | 0      | 0      | 1,168 | 148  | 485 |
| Saltery           | 0.0    | 0.0    | 0.3    | 0.87 | 0.1 | 0.3 | 0      | 0      | 458   | 111  | 559 |

| Cook Inlet        |        |        |        |      |    |
| Other Cook Inlet  | 11.7   | 8.0    | 15.8   | 0.00 | 11.8 | 2.4 | 20,696 | 14,139 | 28,004 | 20,849 | 4,222 |
| Susitna           | 5.2    | 2.0    | 9.0    | 0.00 | 5.3  | 2.2 | 9,174  | 3,526  | 15,904 | 9,328  | 3,831 |
| Kenai             | 74.2   | 69.2   | 78.9   | 0.00 | 74.2 | 2.9 | 131,637 | 122,786 | 139,924 | 131,533 | 5,213 |
| Kasilof           | 1.7    | 0.6    | 3.6    | 0.01 | 1.9  | 0.9 | 3,087  | 1,007  | 6,360  | 3,304  | 1,659 |

*Note:* Stock composition estimates may not sum to 100% and stock-specific harvest estimates may not sum to the total harvest due to rounding error.

*Note:* Results for Cook Inlet subregional reporting groups are only reported if the overall contribution to the Cook Inlet group in the stratum or any contributing strata is greater than 5%.
Appendix A64—Igvak (statistical areas 262-75, 80, 90, 95), 2016, all strata. Annual regional and subregional (within Chignik, Kodiak, and Cook Inlet) estimates of stock composition (%) and stock-specific harvest. Estimates include median, 90% credibility interval (CI), the probability that the group estimate is equal to zero (P = 0), mean, and standard deviation (SD).

<table>
<thead>
<tr>
<th>Reporting Group</th>
<th>Stock Composition</th>
<th>Stock-specific Harvest</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Median 90% CI</td>
<td>Mean</td>
</tr>
<tr>
<td>West of Chignik</td>
<td>3.6 2.5 5.0 0.00 3.7 0.8</td>
<td>12,001 8,215 16,617 12,162 2,576</td>
</tr>
<tr>
<td>Chignik</td>
<td>37.5 35.3 39.8 0.00 37.5 1.4</td>
<td>124,510 116,903 132,074 124,509 4,614</td>
</tr>
<tr>
<td>Kodiak</td>
<td>4.9 3.5 6.7 0.00 5.0 1.0</td>
<td>164,060 11,745 22,104 16,597 3,160</td>
</tr>
<tr>
<td>Cook Inlet</td>
<td>52.6 50.8 54.3 0.00 52.6 1.1</td>
<td>174,456 168,492 132,074 174,381 3,505</td>
</tr>
<tr>
<td>Prince William Sound</td>
<td>1.0 0.2 2.1 0.00 1.1 0.6</td>
<td>3,469 823 6,883 3,617 1,834</td>
</tr>
<tr>
<td>South of Cape Suckling</td>
<td>0.0 0.0 0.6 0.38 0.1 0.3</td>
<td>7 0 1,972 368 840</td>
</tr>
<tr>
<td>West of Chignik</td>
<td>3.6 2.5 5.0 0.00 3.7 0.8</td>
<td>12,001 8,215 16,617 12,162 2,576</td>
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<td>124,510 116,903 132,074 124,509 4,614</td>
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<td>164,060 11,745 22,104 16,597 3,160</td>
</tr>
<tr>
<td>Cook Inlet</td>
<td>52.6 50.8 54.3 0.00 52.6 1.1</td>
<td>174,456 168,492 132,074 174,381 3,505</td>
</tr>
<tr>
<td>Prince William Sound</td>
<td>1.0 0.2 2.1 0.00 1.1 0.6</td>
<td>3,469 823 6,883 3,617 1,834</td>
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<tr>
<td>South of Cape Suckling</td>
<td>0.0 0.0 0.6 0.38 0.1 0.3</td>
<td>7 0 1,972 368 840</td>
</tr>
<tr>
<td>Chignik</td>
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<td>Ayakulik / Frazer</td>
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<td>Karluk</td>
<td>2.3 1.3 3.5 0.00 2.3 0.7</td>
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<tr>
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<td>Uganik</td>
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<td>Afognak</td>
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<td>Other Cook Inlet</td>
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<td>Susitna</td>
<td>2.8 1.1 4.8 0.00 2.8 1.2</td>
</tr>
<tr>
<td></td>
<td>Kenai</td>
<td>39.8 37.1 42.3 0.00 39.8 1.6</td>
</tr>
<tr>
<td></td>
<td>Kasilof</td>
<td>3.0 1.9 4.3 0.00 3.0 0.7</td>
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</table>

**Note:** Stock composition estimates may not sum to 100% and stock-specific harvest estimates may not sum to the total harvest due to rounding error.

**Note:** Results for Cook Inlet subregional reporting groups are only reported if the overall contribution to the Cook Inlet group in the stratum or any contributing strata is greater than 5%.
Appendix A65–Kodiak Management Area, 2014, all strata. Annual regional and subregional (within Chignik, Kodiak, and Cook Inlet) estimates of stock composition (%) and stock-specific harvest. Note that these annual summaries only include strata sampled for this study, which account for 46.7% of the KMA commercial sockeye salmon harvest. Estimates include median, 90% credibility interval (CI), the probability that the group estimate is equal to zero (P = 0), mean, and standard deviation (SD).

<table>
<thead>
<tr>
<th>Reporting Group</th>
<th>Stock Composition</th>
<th>Stock-specific Harvest</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Median 90% CI</td>
<td>P = 0 Mean SD</td>
</tr>
<tr>
<td>Regional Subregional</td>
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<td></td>
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<td>South of Cape Suckling</td>
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</tr>
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<tr>
<td>Chignik Lake</td>
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<td></td>
</tr>
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<td>Kodiak Upper Station / Akalura</td>
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</tr>
<tr>
<td>Ayakulik / Frazer</td>
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<td></td>
</tr>
<tr>
<td>Karluk</td>
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</tr>
<tr>
<td>Uganik</td>
<td>3.1 2.7 3.7 0.0 0.0 3.1 0.3</td>
<td></td>
</tr>
<tr>
<td>Northwest Kodiak</td>
<td>0.8 0.5 1.1 0.0 0.0 0.8 0.2</td>
<td></td>
</tr>
<tr>
<td>Afognak</td>
<td>0.5 0.3 0.7 0.0 0.0 0.5 0.1</td>
<td></td>
</tr>
<tr>
<td>Eastside Kodiak</td>
<td>0.7 0.5 1.1 0.0 0.0 0.8 0.2</td>
<td></td>
</tr>
<tr>
<td>Saltery</td>
<td>20.1 19.2 20.9 0.0 0.0 20.1 0.5</td>
<td></td>
</tr>
<tr>
<td>Cook Inlet Other Cook Inlet</td>
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<td></td>
</tr>
<tr>
<td>Susitna</td>
<td>0.8 0.7 1.8 0.0 0.0 0.8 0.2</td>
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<tr>
<td>Kenai</td>
<td>4.0 3.5 4.6 0.0 0.0 4.0 0.3</td>
<td></td>
</tr>
<tr>
<td>Kasilof</td>
<td>2.4 2.0 2.8 0.0 0.0 2.4 0.3</td>
<td></td>
</tr>
</tbody>
</table>

Note: Stock composition estimates may not sum to 100% and stock-specific harvest estimates may not sum to the total harvest due to rounding error.
Appendix A66.—Kodiak Management Area, 2015, all strata. Annual regional and subregional (within Chignik, Kodiak, and Cook Inlet) estimates of stock composition (%) and stock-specific harvest. Note that these annual summaries only include strata sampled for this study, which account for 55.0% of the KMA commercial sockeye salmon harvest. Estimates include median, 90% credibility interval (CI), the probability that the group estimate is equal to zero (P = 0), mean, and standard deviation (SD).

<table>
<thead>
<tr>
<th>Reporting Group</th>
<th>Stock Composition</th>
<th>Stock-specific Harvest</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Median 90% CI</td>
<td>Stock Composition 90% CI</td>
</tr>
<tr>
<td></td>
<td>5%</td>
<td>95%</td>
</tr>
<tr>
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<td>0.1</td>
<td>0.0</td>
</tr>
<tr>
<td>Chignik</td>
<td>1.4</td>
<td>1.0</td>
</tr>
<tr>
<td>Kodiak</td>
<td>57.9</td>
<td>56.4</td>
</tr>
<tr>
<td>Cook Inlet</td>
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<td>35.1</td>
</tr>
<tr>
<td>Prince William Sound</td>
<td>3.6</td>
<td>2.9</td>
</tr>
<tr>
<td>South of Cape Suckling</td>
<td>0.3</td>
<td>0.1</td>
</tr>
<tr>
<td>Total</td>
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<table>
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<th>Subregional</th>
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<th>Stock-specific Harvest 90% CI</th>
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<td>0.5</td>
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<tr>
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<td>Chignik Lake</td>
<td>0.8</td>
<td>0.4</td>
</tr>
<tr>
<td>Kodiak</td>
<td>Upper Station / Akalura</td>
<td>1.7</td>
<td>1.5</td>
</tr>
<tr>
<td></td>
<td>Ayakulik / Frazer</td>
<td>19.3</td>
<td>18.1</td>
</tr>
<tr>
<td></td>
<td>Karluk</td>
<td>14.7</td>
<td>13.8</td>
</tr>
<tr>
<td></td>
<td>Uganik</td>
<td>2.7</td>
<td>2.2</td>
</tr>
<tr>
<td></td>
<td>Northwest Kodiak</td>
<td>0.6</td>
<td>0.4</td>
</tr>
<tr>
<td></td>
<td>Afognak</td>
<td>0.4</td>
<td>0.3</td>
</tr>
<tr>
<td></td>
<td>Eastside Kodiak</td>
<td>0.9</td>
<td>0.7</td>
</tr>
<tr>
<td></td>
<td>Saltery</td>
<td>17.4</td>
<td>16.3</td>
</tr>
<tr>
<td>Cook Inlet</td>
<td>Other Cook Inlet</td>
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<td>3.9</td>
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<tr>
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<td>Susitna</td>
<td>4.4</td>
<td>3.7</td>
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<td></td>
<td>Kenai</td>
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<td></td>
<td>Kasilof</td>
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Note: Stock composition estimates may not sum to 100% and stock-specific harvest estimates may not sum to the total harvest due to rounding error.
Appendix A67--Kodiak Management Area, 2016, all strata. Annual regional and subregional (within Chignik, Kodiak, and Cook Inlet) estimates of stock composition (%) and stock-specific harvest. Note that these annual summaries only include strata sampled for this study, which account for 62.7% of the KMA commercial sockeye salmon harvest. Estimates include median, 90% credibility interval (CI), the probability that the group estimate is equal to zero (P = 0), mean, and standard deviation (SD).

<table>
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<th>Reporting Group</th>
<th>Stock Composition</th>
<th>Stock-specific Harvest</th>
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</thead>
<tbody>
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<td></td>
<td>Median 90% CI</td>
<td>Median 90% CI</td>
</tr>
<tr>
<td></td>
<td>5% 95% P=0 Mean</td>
<td>5% 95% Mean</td>
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<tr>
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<td></td>
</tr>
<tr>
<td>Regional</td>
<td>Subregional</td>
<td></td>
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<td>1.0 0.2</td>
</tr>
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<td>9.8 0.4</td>
</tr>
<tr>
<td>Kodiak</td>
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<td>57.8 0.6</td>
</tr>
<tr>
<td>Cook Inlet</td>
<td>29.6 28.6 30.7 0.00</td>
<td>29.6 0.6</td>
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<tr>
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<td>1.2 0.9 1.7 0.00</td>
<td>1.3 0.3</td>
</tr>
<tr>
<td>South of Cape Suckling</td>
<td>0.4 0.2 0.8 0.00</td>
<td>0.4 0.2</td>
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<tr>
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<tr>
<td>Kodiak</td>
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<td>27,924</td>
</tr>
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<td>27,924 32,339 28,003 2,552</td>
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</tr>
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Note: Stock composition estimates may not sum to 100% and stock-specific harvest estimates may not sum to the total harvest due to rounding error.