Graphs showing the run timing of the early run IF:

A wide area is considered for the assignment of Chignik run harvest. (The currently held estimates of harvest.)

Genetics is used to define the early run percentages.

It should be noted that the 2015 run timing appears much more pulled to the right. This is in part due to the harvest allocated from the SEDM (South East District Mainland?) region.

When this same exercise is performed using lagoon only harvest, one should note how the 2015 graph moves more to the left, which is more in line with the other years. This suggests that something about the harvest that was assigned to the Chignik run that year was not in line with what we see genetically at the weir. Later comparisons between composition estimates using genetic assignment and composition estimates using run timing confirm this.

Currently held estimates of harvest

year\_vector pi mu sigma pi.se mu.se sigma.se

1 2006 1 178.0912 10.820496 NA 0.010857819 0.007706496

2 2007 1 174.8777 8.720926 NA 0.010939592 0.007758447

3 2008 1 177.8294 8.505071 NA 0.010768646 0.007635776

4 2010 1 177.9337 9.017945 NA 0.007556114 0.005358767

5 2011 1 170.4480 9.228394 NA 0.005179892 0.003674713

6 2012 1 177.1634 9.291296 NA 0.009495867 0.006742585

7 2013 1 172.0159 8.227479 NA 0.005296539 0.003756474

8 2014 1 176.7040 12.054836 NA 0.019106528 0.013572557

9 2015 1 184.4711 12.818554 NA 0.011901734 0.008454910

10 2016 1 175.9992 10.912605 NA 0.009274293 0.006584687

11 2017 1 174.4956 11.041357 NA 0.010306880 0.007337906

Lagoon only harvest

year\_vector pi mu sigma pi.se mu.se sigma.se

1 2006 1 177.5122 10.504190 NA 0.011323363 0.008035831

2 2007 1 173.9503 8.722344 NA 0.011881674 0.008426773

3 2008 1 177.2377 8.525596 NA 0.011327879 0.008032437

4 2010 1 176.8302 9.575016 NA 0.009906370 0.007027309

5 2011 1 168.2961 9.465405 NA 0.006810997 0.004832731

6 2012 1 172.1310 8.585597 NA 0.009138684 0.006487956

7 2013 1 172.1514 9.175555 NA 0.007591446 0.005386662

8 2014 1 175.5018 11.162602 NA 0.018162758 0.012896281

9 2015 1 181.2552 12.380780 NA 0.013068160 0.009282329

10 2016 1 174.9309 11.076821 NA 0.011668353 0.008286432

11 2017 1 174.3505 12.171671 NA 0.014413631 0.010284756

Pi = proportion of early run (In this case = 100%)

Mu = mean of run of fitted gamma distribution

Sigma = standard deviation of fitted gamma distribution.



















