

Exercise – K-Pass Removal

Answer the following questions with R code by creating (*and editing if you make a mistake*) an R script and iteratively running the code in RStudio.

1. In one reach of the Little Stawamus Creek (British Columbia), Decker *et al.* (1999) had the following removals of Coho Salmon (*Oncorhynchus kisutch*) in three passes – 107, 62, and 17. Use this information to estimate the initial population size (with the Carle-Strub method) as well as the probability of capture (with appropriate 95% confidence intervals).
2. Schnute (1983) recorded the number of Brook Trout (*Salvelinus fontinalis*) removed in passes in two streams in the the Nashwaak Experimental Watersheds Project (Canada) on multiple dates. The data are recorded in **BrookTroutNEWP.csv**. Use this information to estimate the initial population size (with the Zippin method) and probability of capture (with appropriate 95% confidence intervals) for each stream, section, and date combination.