**Scallop Queries**

**Scallop Estimate Query Set:**

Q\_EST\_A

Selects all tows used in estimate and makes new Table [Q\_EST\_A\_Tows\_Used\_in\_Est]

We created a new field in [Events] called “Used\_in\_Estimate” – to avoid errors due to not selecting all the tows of interest in this stage.

This is where you would limit your query by year or survey area or bed

Q\_EST\_B

Creates new table [Q\_Est\_B\_Summary\_Count\_Stations] that gives you a count of all stations used in the estimate for each bed and each year.

Q\_EST\_C

Creates a new table, [Q\_EST\_C\_CC\_Scallop\_Summary], from the CatchComp that sums the count and weight of whole, live scallops in each tow used in estimate, for the years and/or survey areas of interest

Species Code = 850

Condition Code = 01

Q\_EST\_D

Makes a new table from [Q\_EST\_C\_CC\_Scallop\_Summary], and the Events Table, called [Q\_EST\_D\_Standardized\_Catch] that gives a standardized catch count and weight value for each event ID used in the estimate.

The standardized catch here is calculated using the Designated Tow lengths. The designated tow lengths are the skipper’s lengths, unless the difference between the skipper’s tow length and the length as calculated in GIS (in UTM, appropriate zone) is greater than 10% of the skipper’s length. In that case, the calculated length is used as the designated length.

Q\_EST\_E

Makes a new table from [Q\_EST\_D\_Standardized\_Catch] and [Q\_EST\_C\_Scallop\_Summary] that provides a

* Number of Tows
* Total NM Towed
* Raw Count Scallops (from Q\_EST\_1c\_Scallop\_Summary)
* Raw Weight Scallops (from Q\_EST\_1c\_Scallop\_Summary)
* Sums of Count and Wt per nautical mile
* Means of counts and weights per nautical mile
* Medians of counts and weights per nautical mile
* Variance of Standardized Samples

For the standardized count and weight of scallops in each bed for each year

New Table is [Q\_EST\_E\_Summary\_Using\_Designated\_Length]

Q\_EST\_F

Select Query that sums area by bed

Q\_EST\_G

Makes New Table [Q\_EST\_G] that copies [Q\_EST\_E\_Summary\_Using\_Designated\_Length] and adds a Field for [Sq\_NM\_in\_Bed] and [Area\_Swept\_Sq\_NM].

Area Swept is based on Standardized Catches – Catches were standardized to 1 nautical mile. There are 6076 feet in a nautical mile, and the dredge is 8 feet wide. Therefore, the Area Swept for each tow is 8/6076, or 0.001316656 square nautical miles.

Area Swept is equal to the [Number\_of\_Tows]\*0.001316656

The table [STATIONS] is used to add a column in the table for the total count of available stations in a bed [Big\_N]

SQNM in bed is formatted to 1 decimal place

Q\_EST\_H

Adds columns to [Q\_EST\_G] for the Population Estimate by Count and Weight of Scallops in the entire bed for the year(s) of interest.

Also calculates variance of CBar

Makes Table [Q\_EST\_H\_varCBar]

Q\_EST\_I

calculates the 95% confidence interval (using Student’s T dist for two tailed test) for mean count and weight (Kg and LB)

Makes a table with everything in previous table plus the

* 95% CI for mean count
* 96% CI for mean weight
* Variance for Pop Est Count
* Variance for Pot Est Weight

Table is [Q\_EST\_I\_PopEst]

Q\_EST\_J

Copies Q\_EST\_I and adds 95% Confidence Intervals for Population Count and Weight Estimates and Coefficient of Variation for Population Estimates

Table: [Q\_EST\_J\_CI\_and\_CV]

Q\_EST\_K

Makes a table from [DATA\_SCALLOP\_MEAT\_RECOVERY] summing the whole wt and meat wt by BED and YEAR

New Table is [Q\_EST\_K\_MeatRec]

Q\_EST\_L

Copies [Q\_EST\_J], and adds fields with meat recovery rates, Meat\_Estimate in Kilograms, and Meat Estimate in Pounds, using [Q\_EST\_K\_MeatRec]

New Table is [Q\_EST\_L\_wMR]

Q\_EST\_M\_REFORMAT

Reformats final table however best suits the purpose