**Zooplankton Study Documentation for Matrices**

August 3rd, 2020

The 3 Excel zooplankton files, ***1972-2019CBMatrix.xlsx***, ***1972-2019MysidMatrix.xlsx***, and ***1972-2019PumpMatrix.xlsx***, each contain 6 worksheets with the standardized information listed below:

Worksheet 1- Metadata explaining each of the fields in associated matrix.

Worksheet 2- Station lookup table with station location information and years sampled.

Worksheet 3- Region lookup table explaining each region code.

Worksheet 4- Taxa lookup table for associated matrix.

Worksheet 5- Equation used for calculating CPUE for associated matrix.

Worksheet 6- Catch-per-unit-effort (CPUE) data matrix for each valid sample, 1972-2018 with ancillary station information.

Each matrix includes CPUE for each taxon in number per cubic meter and ancillary station information including Core and Region codes, as well as Secchi, Chlorophyll-a, Temperature, and EC data (blank is for missing environmental data). More information about these data fields are in worksheets 1-3 of each file. CPUE for each taxon in number per cubic meter is in the columns labeled with the taxon codes (worksheet 4).

Each matrix includes CPUE data for taxa efficiently sampled by that gear. The CB matrix contains CPUE data for mesozooplankton including adult copepods, copepodids, and cladocera. The pump matrix contains CPUE data for microzooplankton including copepod nauplii, small adult cyclopoid copepods of the genera *Oithona* and *Limnoithona*, and rotifers. The mysid matrix contains CPUE data for mysids.

For long-term data analysis, we encourage you to use core stations 1 and 2, as these stations have been consistently sampled since at least 1974, and the months sampled most years (surveys 3-11) to standardize the data set. If you would like to analyze data prior to 1974, use only core stations coded 1, as these stations have been consistently sampled since 1972 (see worksheet 2 in each file for station specifics). If you are using data from a subset of the years or months you may be able to use all the stations or another group of months in your analyses, just check that the stations you wish to include were sampled during all months/years of the analysis. A current station map is located in the file ***ZP Core and Current Stations.ppt***. A historical station map is located in the file ***ZP Monitoring Station Map Historic.ppt.***

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