**FishMonth.r**

**Purpose**  This function is used to calculate monthly fishery effort/CPUE in a specific area. This can be a bank, a nafo area or a seedbox. Optionally observer trip CPUE can also be calculated from this function.

**Version Control**  This is a big revision of what was a yearly produced script.

Required packages splancs, RODBC

**Locally Derived Functions**

1. logs\_and\_fishery\_data.r

**Section 1**

This is the bulk of the function, here monthly CPUE ‘s can be calculated for a specific bank, seedbox, nafo area (within a particular bank). Different CPUE calculations are made (kg/horr, kg/hour-meter, kg/crew-hour). You can also look at CPUE by fleet (Freezer trawlers or Wet boats). If looking at NAFO regions before 2008 take the information with a grain of salt as the banks weren’t divided into sub-banks at various points in time (GB didn’t used to be GBa and GBb for example). Optionally the seedbox CPUE’s can be calculated if they exist. Finally the data can be saved to csv files if you want

**Section 2**

This section is for getting CPUE from observer trips. This can be a specific observer trip, or can be called from a flat file that contains observer trip information. Observer trip information can be saved as a csv and is returned to the default r workspace.

***Argument(s)*** *(*Note: Arguments needed for Observer data start with "Obs.")

1. CPUE CPUE to calculate, CPUE by month/bank/nafo, Observer specific trip

CPUE or both. Default is "Month". Options are "Month", "Obs", and "Both"

1. bank Which bank to select from using abbreviated bank id. Default is GBa

(Georges Bank A). The options are "GBa" = Georges a, "GBb" = Georges b, "BBn" = Browns north, "BBs" = Browns south, "GBBB" = all of Georges and Browns banks. "GB" = all of Georges Bank, "BB" = all of Browns Bank, Ger" = German, "Mid" = Middle, "Sab" = Sable, "Ban" = Banquereau, and "SPB" = St. Pierre Bank

1. year the year of interest. Note that before 2009 we aren’t using the “slip”

data but old log data, the quality of which is an unknown.

1. fleet ALL = total fleet, FT = freezer trawlers, WF = wet fishery
2. boxes Summarize the data for the seed boxes? Default is NULL, other options

currently are "GB", "BB", "ALL"

1. print Print the results to screen? T/F Default = T.
2. output Return the results for use elsewhere, this returns a list to your default r

workspace. T/F Default = T

1. nafo.div: The nafo division. This needs to align with the Bank choice as well, what

is produced is the amount landed on bank X nafo division y if nafo division crosses multple banks this will only pull out part of NAFO division data. Default is NULL. This option won't work great for the data before 2008 without careful attention as these data have some different division names.

1. export.logs Do you want to export the log and fishery data. This does not include

these monthly tables. (T/F) default is F See logs\_and\_fishery.r for details

1. export.tables Export the tables produced in this query? (T/F), default is F
2. months Select the months of interest. Numerice, default is all months, c(1:12)
3. Obs.vnum The vessel number for the observer trips, multiple trips are allowed BUT

MUST BE PAIRED WITH APPROPRIATE Obs.land.date argument. If CPUE = "Obs" or "Both" and this is = NULL this will read in a flat file with observer trip information in it. Default is NULL

1. Obs.land.date The landing date of the Observer trip(s), multiple trips are allowed BUT

THIS MUST BE PAIRED WITH APPROPRIATE Obs.vnum If CPUE = "Obs" or "Both" and this is = NULL this will read in a flat file with observer trip information in it. Default is NULL

1. Obs.export Export the observer CPUE data? (T/F), default =F
2. direct Directory to find the functions. Default is "Y:/Offshore

scallop/Assessment/")

1. un your SQL username. default = un.ID (if set in your r.Profile this will run

automatically)

1. pw Your SQL password. default = pwd.ID (if set in your r.Profile this will run

automatically)

1. db.con Database to connect to. Default is "ptran"