Lab1_Assignment

2024-09-16

Lab Assignment

Open up the file: "DARTS_cruise_data_2012-2020 - 20201103.xlsx", create a new table for R that reformats the data within the tab "CTD all years" into a csv file that can be read by R.

Create an R Notebook which imports the DaRTS CTD data, and produces the 3 following figures:

1. A temperature profile for Station 1 from the Cruise on Sept 11th 2012.

   Hint: you'll need to **filter** your data frame. Check out this lesson from the Data Carpentry R ecology course for more information on data frame manipulation.

2. Temperature profiles for all the Stations from the Cruise on Sept 11th 2012, with all profiles on the same plot.

   Hint: you'll need to convert the station numbers to **factors**. Check out this lesson from the Data Carpentry R ecology course for more information on factors.

3. Profiles from all the stations for a cruise and variable of your choice.

Label all your axes and include the units.

Include a short introduction (a couple of sentences / short paragraph) describing the DaRTS dataset (e.g. oceanographic time series from the Damariscotta River between years XX and YY, measuring variables ZZZZZZZ).

It's up to you how to layout your notebook, but please include:

1. At least two different sections with headers
2. A list (e.g. of the variables in the data set, or the figures you are going to plot)