

# Synoptic CB: Porewater SO<sub>4</sub>/Cl

2022-2024 Samples

2025-10-31

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## 0.1 Grab 2022 and 2023 All Data Files

```
#read in 2022 Dionex Data:
dat22 <- read.csv("2022/COMPASS_SynopticCB_SO4_Cl_2022.csv")
# head(dat22)

#read in 2023 Dionex Data:
dat23 <- read.csv("2023/COMPASS_SynopticCB_SO4_Cl_2023.csv")
# head(dat23)

#read in 2024 Dionex Data:
dat24 <- read.csv("2024/COMPASS_SynopticCB_SO4_Cl_2024.csv")
# head(dat24)

all_dat <- rbind(dat22, dat23, dat24)

all_dat <- all_dat %>%
  select(
    Project, Region, Sample_ID, Year, Month, Day, Time, Time_Zone,
    Site, Zone, Replicate, Depth_cm,
    SO4_Conc_mM, SO4_Conc_flag, SO4_QAQC_flag, Cl_Conc_mM, Cl_Conc_flag, Cl_QAQC_flag, salinity,
    Analysis_rundate, Run_notes, Field_notes
    # list columns in the order you want them
  )

##Set 4 decimal points max
all_dat <- all_dat %>%
  mutate(across(where(is.numeric), round, digits = 4))
```

```

## Warning: There was 1 warning in 'mutate()'.
## i In argument: 'across(where(is.numeric), round, digits = 4)'.
## Caused by warning:
## ! The '...' argument of 'across()' is deprecated as of dplyr 1.1.0.
## Supply arguments directly to '.fns' through an anonymous function instead.
##
## # Previously
## across(a:b, mean, na.rm = TRUE)
##
## # Now
## across(a:b, \((x) mean(x, na.rm = TRUE)))

```

`##Make Relevant Metadata Sheet`

## 0.2 Write out files

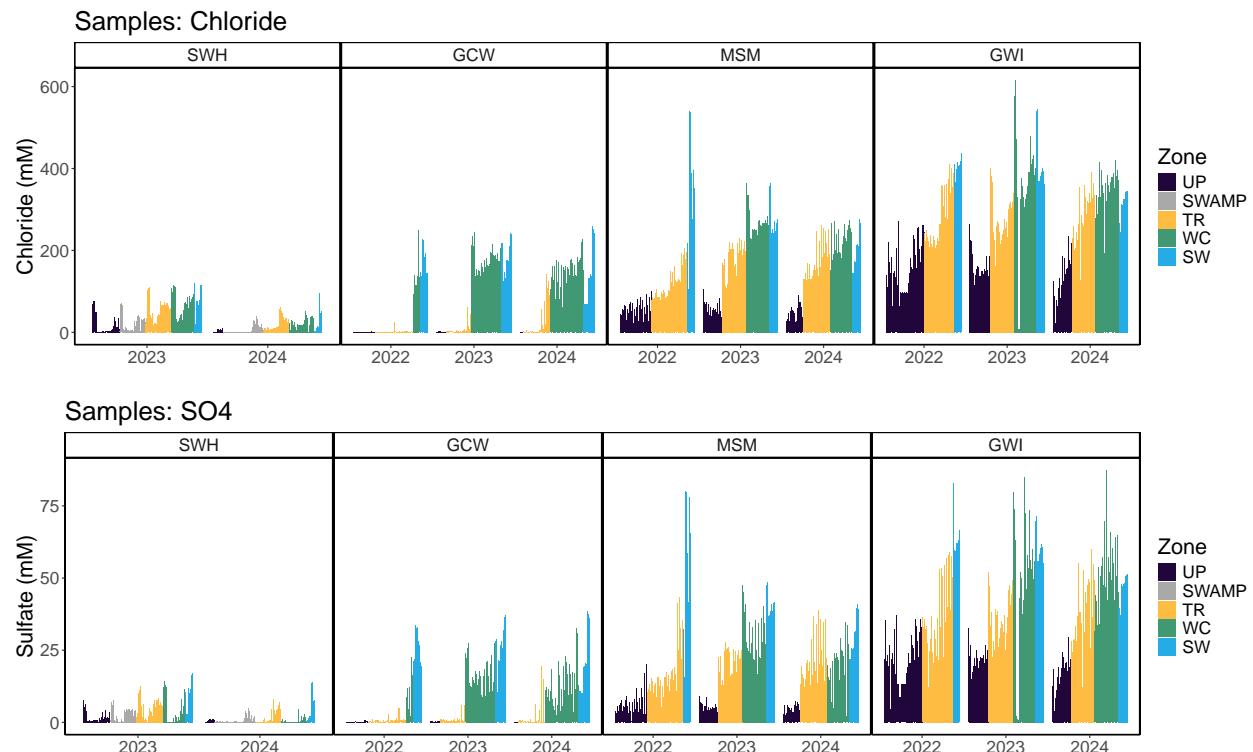
```

#write out a csv of all the data to the main folder:
write.csv(all_dat, "COMPASS_SynopticCB_Dionex_AllData.csv")

#write out a csv of the metadata associated with the data:
write.csv(metadat, "COMPASS_SynopticCB_Dionex_Metadata.csv")

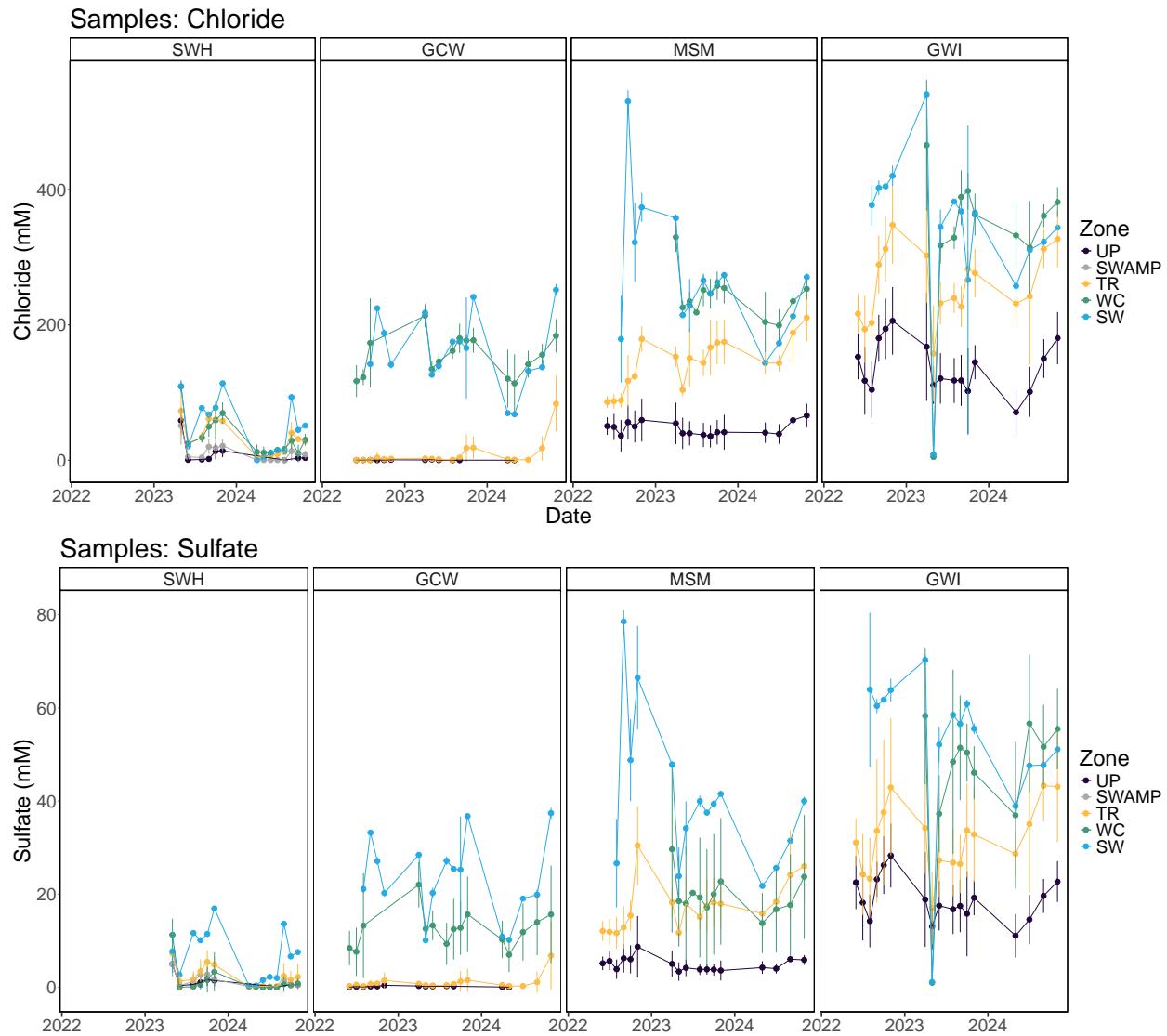
```

## 0.3 Visualize Data by Plot



## 0.4 Summarized data for Site and Zone

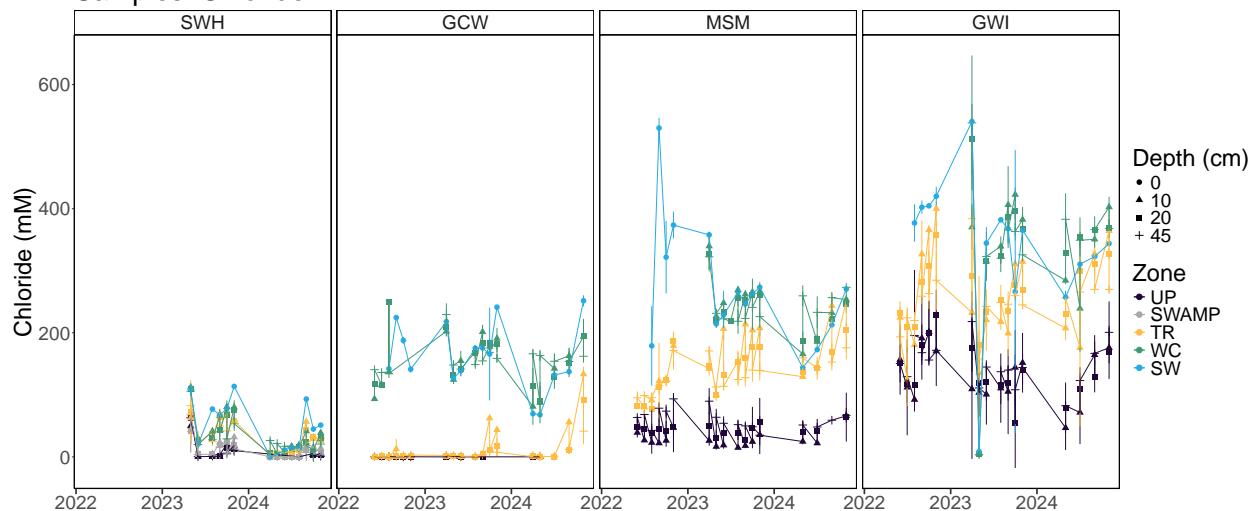
```
## `summarise()` has grouped output by 'Month', 'Year', 'Site'. You can override
## using the '.groups' argument.
```



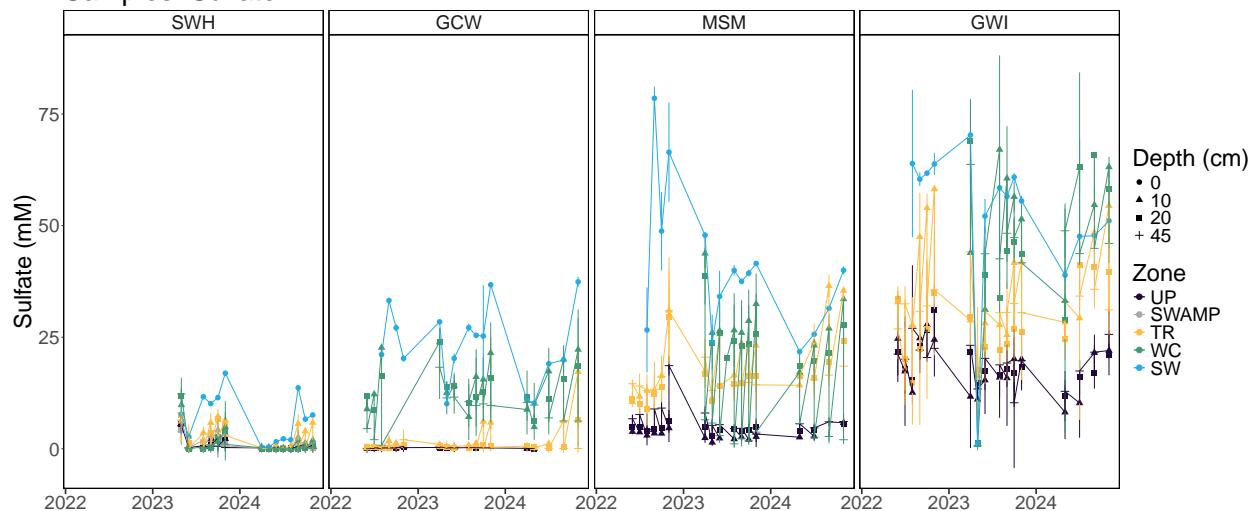
## 0.5 Summarized data for Depth, Site and Zone

```
## `summarise()` has grouped output by 'Month', 'Year', 'Site', 'Zone'. You can
## override using the '.groups' argument.
```

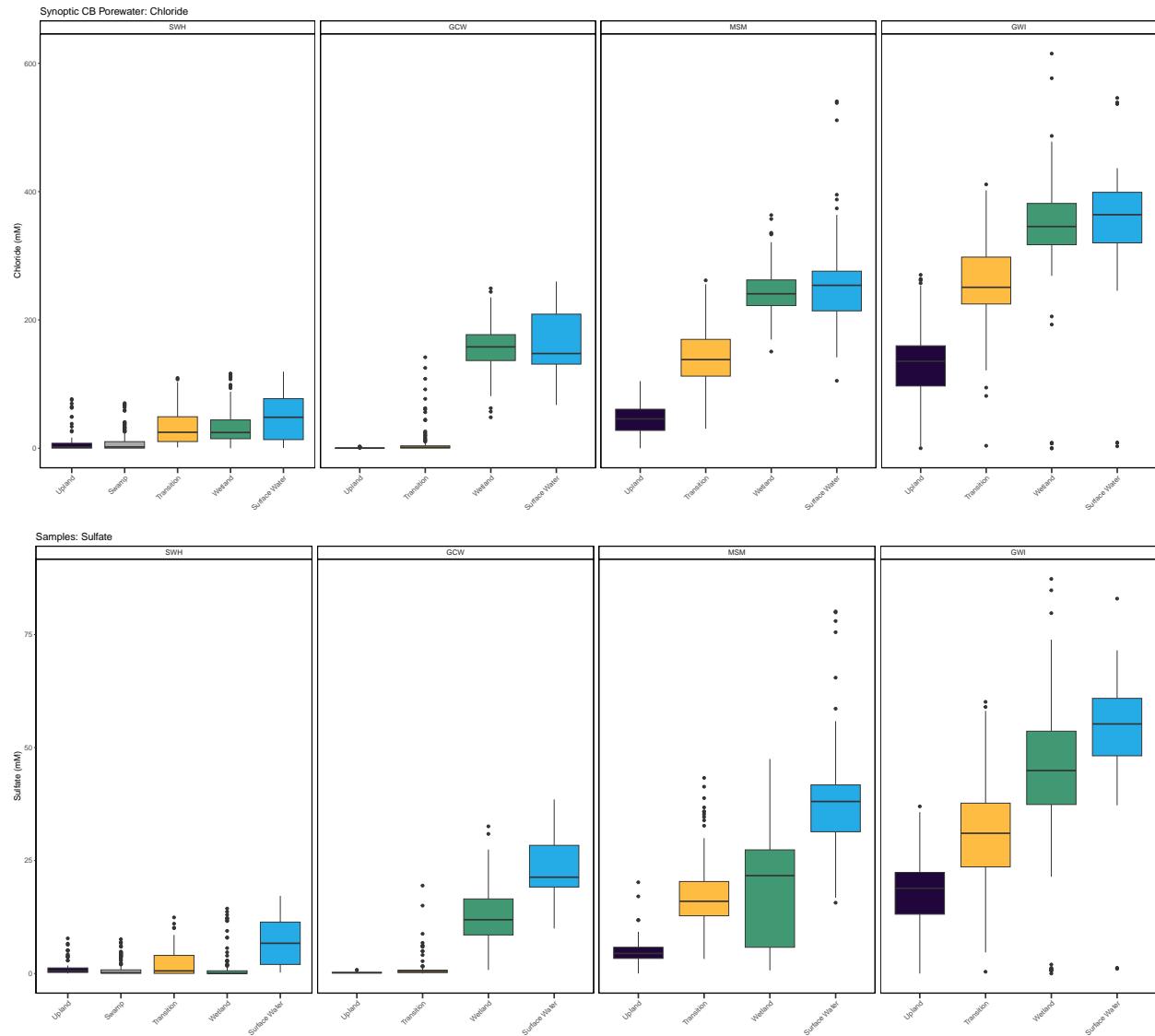
### Samples: Chloride



### Samples: Sulfate



## 0.6 Boxplot summary



```
## pdf
## 2
```

```
## pdf
## 2
```