

Dissolved Organic Carbon in Wisconsin Lakes

https://github.com/cwatson1013/Env_Data_Analysis_Final_Proj.git

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Abstract

Dissolved organic carbon (DOC) is a significant part of the carbon cycle. DOC can come from within the lake, such as from decaying organisms or plant matter, or from the catchment area of the lake. The catchment area soils can influence the amount of DOC that enters each lake. The purpose of this study is to see if there is a relationship between depth and DOC and if so, if there is a seasonal relationship. This study looked at lakes that were part of the North Temperate Region located in Wisconsin, USA. DOC was found to not be normally distributed, so a two-way ANOVA with an interaction test was conducted. The results found that depth and lake name were significant. A non-parametric test was run on Peter, Paul, and West Long lakes to determine trends and changepoints in the data. Peter and West Long lake had trends and changepoints, but Paul lake did not. Overall, it was found that the depth and DOC do not have a relationship and there is no seasonal relationship between change in depth and DOC.

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<Note: set up autoreferencing for figures and tables in your document>

1 Research Question and Rationale

The rationale for this analysis is that there typically is a relationship between dissolved organic carbon and depth. There is also typically a relationship between land area surrounding lakes that have high amounts of organic soils usually deposit large amounts of dissolved organic carbon into lakes. Dissolved organic carbon is an important part of the carbon cycle and supplies nutrients for some organisms. Most DOC is natural, but high amounts can indicate human influence, such as land surrounding the lake that is high in organic amount.

This study aims to find out whether there is a relationship between dissolved organic carbon (DOC) and depth. If there is a relationship between these two variables, I want to see if this relationship varies seasonally. I am using a dataset that contains various parameter measurements for different lakes in the North Temperate Region in Wisconsin, USA. Parameters measured include temperature, depth, dissolved organic carbon, dissolved inorganic carbon, particulate organic matter and others.

2 Dataset Information

Table 1: Summary of Carbon Data from NTL-LTER Lakes in Wisconsin

| lakeid | lakename | year4 | daynum | sampledate | depth | depth_id | tpc | tpa | DIC_mg | DIC_uM | air_pco2 | water_pco2 | doc | absorbance |
|---------------|---------------------|--------------|---------------|---------------|------------------|----------------|----------------|---------------|----------------|------------------|---------------|----------------|----------------|---------------|
| R :3887 | Peter Lake :3887 | Min. :1984 | Min. : 82.0 | 5/24/99: 18 | 0 :1719 | Min. :2.000 | Min. : 0.100 | Min. :0.000 | Min. : 0.023 | Min. : 1.917 | Min. :397.7 | Min. : 0.0 | Min. : 2.710 | Min. :0.011 |
| L :3852 | Paul Lake :3852 | 1st Qu.:1993 | 1st Qu.:166.0 | 5/25/99: 18 | Metalimnion:1297 | 1st Qu.: 1.000 | 1st Qu.: 0.580 | 1st Qu.:0.070 | 1st Qu.: 0.812 | 1st Qu.: 67.625 | 1st Qu.:343.4 | 1st Qu.: 478.0 | 1st Qu.: 4.570 | 1st Qu.:0.060 |
| T :1818 | Tuesday Lake :1818 | Median :1999 | Median :192.0 | 5/26/99: 18 | Hypolimnion:1020 | Median : 3.000 | Median : 0.890 | Median :0.103 | Median : 1.322 | Median : 110.167 | Median :362.9 | Median : 838.5 | Median : 5.603 | Median :0.146 |
| W :1571 | West Long Lake:1571 | Mean :2000 | Mean :192.4 | 5/31/99: 18 | PML : 876 | Mean : 2.775 | Mean : 1.110 | Mean :0.149 | Mean : 2.310 | Mean : 192.487 | Mean :360.4 | Mean :1012.3 | Mean : 6.932 | Mean :0.194 |
| E :1435 | East Long Lake:1435 | 3rd Qu.:2007 | 3rd Qu.:218.0 | 6/1/99 : 18 | Epilimnion : 570 | 3rd Qu.: 5.000 | 3rd Qu.: 1.305 | 3rd Qu.:0.180 | 3rd Qu.: 1.968 | 3rd Qu.: 164.000 | 3rd Qu.:379.0 | 3rd Qu.:1175.6 | 3rd Qu.: 8.370 | 3rd Qu.:0.265 |
| M : 456 | Crampton Lake : 456 | Max. :2016 | Max. :310.0 | 6/14/99: 18 | (Other) :7918 | Max. : 7.000 | Max. :11.860 | Max. :2.170 | Max. :48.599 | Max. :4049.883 | Max. :608.1 | Max. :9348.2 | Max. :44.080 | Max. :1.213 |
| (Other) : 538 | (Other) : 538 | NA | NA | (Other):13449 | NA's : 157 | NA's :170 | NA's :11410 | NA's :11409 | NA's :3642 | NA's :3642 | NA's :12411 | NA's :12411 | NA's :9993 | NA's :10658 |

% latex table generated in R 3.5.2 by xtable 1.8-3 package % Sat Apr 13 17:50:18 2019

| | lakeid | lakename | year4 | daynum | sampledate | depth |
|-----|--------------|---------------------|--------------|---------------|---------------|-------------|
| X | R :3887 | Peter Lake :3887 | Min. :1984 | Min. : 82.0 | 5/24/99: 18 | 0 :1719 |
| X.1 | L :3852 | Paul Lake :3852 | 1st Qu.:1993 | 1st Qu.:166.0 | 5/25/99: 18 | Metalimnio |
| X.2 | T :1818 | Tuesday Lake :1818 | Median :1999 | Median :192.0 | 5/26/99: 18 | Hypolimnic |
| X.3 | W :1571 | West Long Lake:1571 | Mean :2000 | Mean :192.4 | 5/31/99: 18 | PML : 876 |
| X.4 | E :1435 | East Long Lake:1435 | 3rd Qu.:2007 | 3rd Qu.:218.0 | 6/1/99 : 18 | Epilimnion |
| X.5 | M : 456 | Crampton Lake : 456 | Max. :2016 | Max. :310.0 | 6/14/99: 18 | (Other) :79 |
| X.6 | (Other): 538 | (Other) : 538 | | | (Other):13449 | NA's : 157 |

3 Exploratory Data Analysis and Wrangling

```
## [1] "factor"
```

```
## [1] "Date"
```

```
##   lakeid   lakename year4 daynum sampledate depth depth_id tpc tpn DIC_mg
## 1      L Paul Lake  1984   155 1984-06-03     0       1  NA  NA   1.45
## 2      L Paul Lake  1984   155 1984-06-03     1       2  NA  NA   1.82
## 3      L Paul Lake  1984   155 1984-06-03     2       3  NA  NA   1.51
## 4      L Paul Lake  1984   155 1984-06-03    3.5       4  NA  NA   1.47
## 5      L Paul Lake  1984   155 1984-06-03    5.5       5  NA  NA   2.69
## 6      R Peter Lake 1984   156 1984-06-04     0       1  NA  NA   2.85
```

```
##   DIC_uM air_pco2 water_pco2 doc absorbance
```

```
## 1 120.8333      NA      NA  NA      NA
## 2 151.6667      NA      NA  NA      NA
## 3 125.8333      NA      NA  NA      NA
## 4 122.5000      NA      NA  NA      NA
## 5 224.1667      NA      NA  NA      NA
## 6 237.5000      NA      NA  NA      NA
```

```
##   lakeid      lakename   year4      daynum
## R      :3887 Peter Lake   :3887   Min.   :1984   Min.   : 82.0
## L      :3852 Paul Lake    :3852   1st Qu.:1993   1st Qu.:166.0
## T      :1818 Tuesday Lake :1818   Median :1999   Median :192.0
## W      :1571 West Long Lake:1571   Mean    :2000   Mean    :192.4
## E      :1435 East Long Lake:1435   3rd Qu.:2007   3rd Qu.:218.0
## M      : 456 Crampton Lake : 456   Max.    :2016   Max.    :310.0
## (Other): 538 (Other)      : 538
```

```
##   sampledate      depth      depth_id      tpc
## Min.   :1984-06-03     0      :1719   Min.   :-2.000   Min.   : 0.100
## 1st Qu.:1993-06-16 Metalimnion:1297   1st Qu.: 1.000   1st Qu.: 0.580
## Median :1999-07-06 Hypolimnion:1020   Median : 3.000   Median : 0.890
## Mean    :2000-07-14 PML           : 876   Mean    : 2.775   Mean    : 1.110
## 3rd Qu.:2007-08-28 Epilimnion : 570   3rd Qu.: 5.000   3rd Qu.: 1.305
## Max.    :2016-08-17 (Other)      :7918   Max.    : 7.000   Max.    :11.860
## NA's      : 157   NA's      :170   NA's      :11410
```

```
##   tpn      DIC_mg      DIC_uM      air_pco2
## Min.   :0.000   Min.   : 0.023   Min.   : 1.917   Min.   :197.7
## 1st Qu.:0.070   1st Qu.: 0.812   1st Qu.: 67.625   1st Qu.:343.4
## Median :0.103   Median : 1.322   Median :110.167   Median :362.9
## Mean    :0.149   Mean    : 2.310   Mean    :192.487   Mean    :360.4
## 3rd Qu.:0.180   3rd Qu.: 1.968   3rd Qu.:164.000   3rd Qu.:379.0
## Max.    :2.170   Max.    :48.599   Max.    :4049.883   Max.    :608.1
## NA's    :11409   NA's    :3642   NA's    :3642   NA's    :12411
```

```
##   water_pco2      doc      absorbance
```

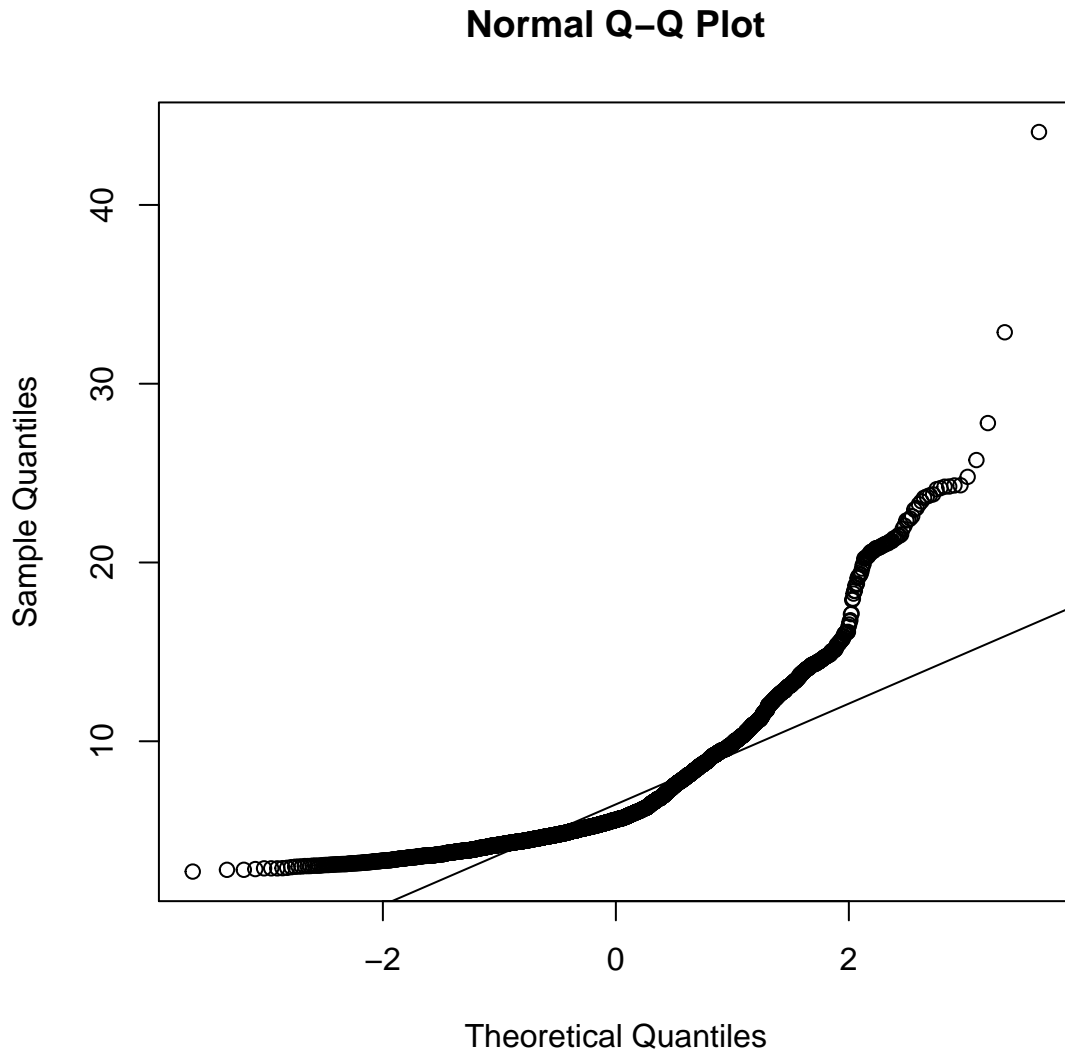


Figure 1: QQplot showing whether data for dissolved organic carbon is normally distributed.

```
## Min.   : 0.0   Min.   : 2.710   Min.   :0.011
## 1st Qu.: 478.0 1st Qu.: 4.570   1st Qu.:0.060
## Median : 838.5 Median : 5.603   Median :0.146
## Mean   :1012.3 Mean   : 6.932   Mean   :0.194
## 3rd Qu.:1175.6 3rd Qu.: 8.370   3rd Qu.:0.265
## Max.   :9348.2 Max.   :44.080   Max.   :1.213
## NA's   :12411  NA's   :9993    NA's   :10658

## [1] "lakeid"      "lakename"    "year4"       "daynum"      "sampledate"
## [6] "depth"       "depth_id"    "tpc"         "tpn"         "DIC_mg"
## [11] "DIC_uM"      "air_pco2"    "water_pco2"  "doc"         "absorbance"

## [1] 13557      15
```

Figure 1 is a qqplot that shows whether the dissolved organic carbon data has a normal distribution. From Figure 1, it is clear that the dissolved organic carbon data do not follow a

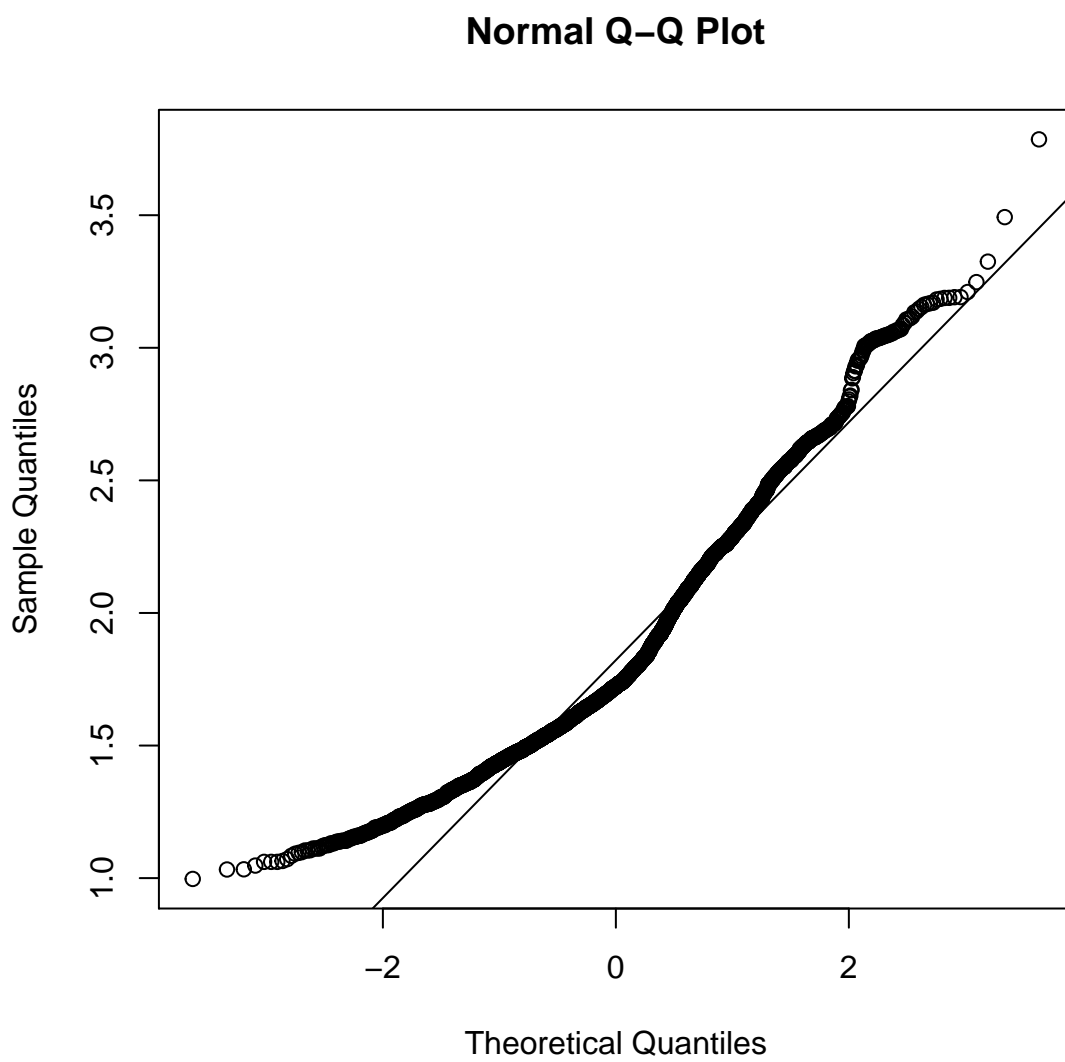


Figure 2: Log QQplot of dissolved organic carbon data.

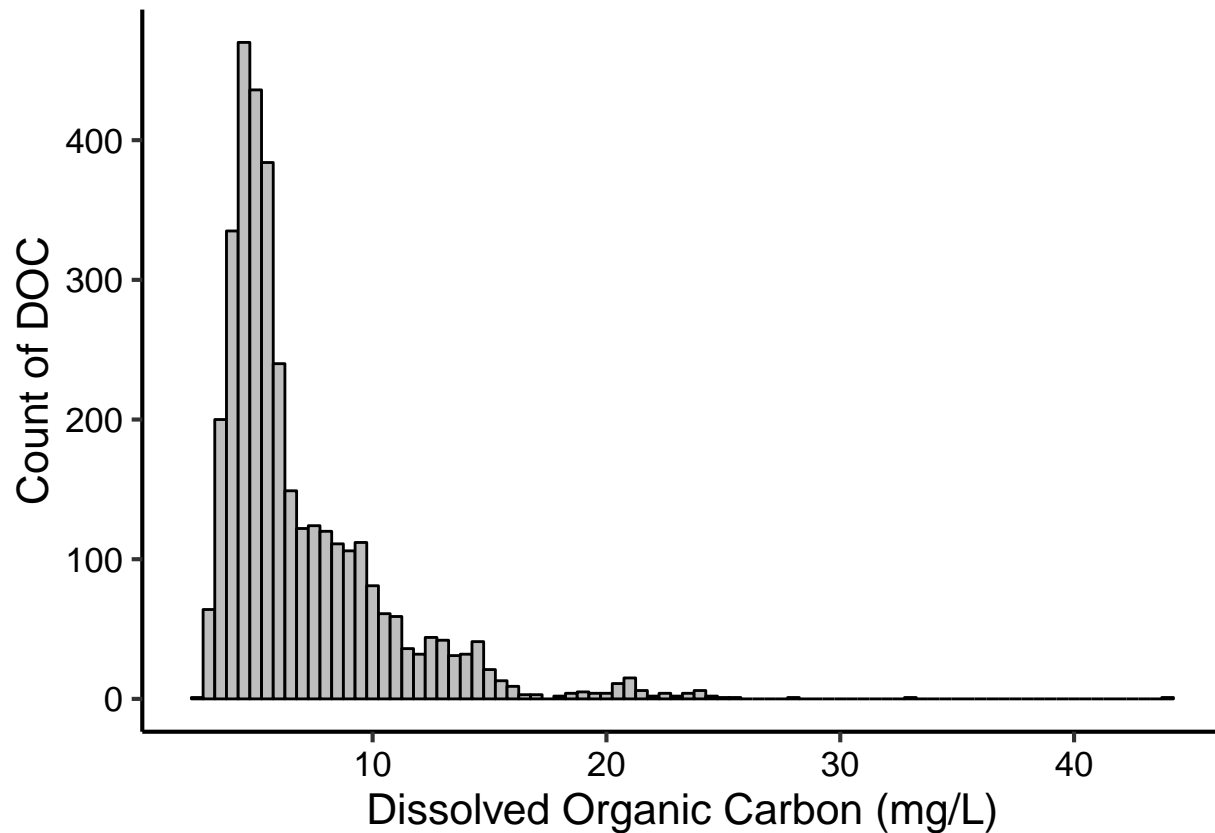


Figure 3: Histogram of dissolved organic carbon (mg/L).

normal distribution. Because the data are not normally distributed, a log qqplot was run to see if log transforming the data would help the data look more normally distributed. Figure 2 shows the dissolved organic carbon data log transformed. From Figure 2 it is clear that dissolved organic carbon is not normally distributed, but log transforming the data makes the data more normally distributed than not log transforming the data.

Figure 3 shows a histogram of the distribution of dissolved organic carbon (mg/L). From Figure 3 it is apparent that the distribution of dissolved organic carbon is not normally distributed. This information will factor into the statistical analyses conducted since the data is not normally distributed.

Figure 4 shows the cumulative frequency of dissolved organic carbon in each lake. From Figure 4, it is apparent that Paul lake has the highest cumulative frequency of dissolved organic carbon, followed by Peter lake. Figure 4 also shows that Peter and Paul lake mainly have dissolved organic carbon amounts between 0 mg/L and 10 mg/L, which is why there are two high spikes. The other lakes have dissolved organic carbon amounts that are more spread out, as shown in Figure 4.

Figure 5 shows a box plot of each depth category of the lake against the doc measurements. From Figure 5 it looks like there is no relationship between depth and dissolved organic carbon (mg/L). Figure 5 indicates that the Epilimnion (water closest to the surface) and Hypolimnion

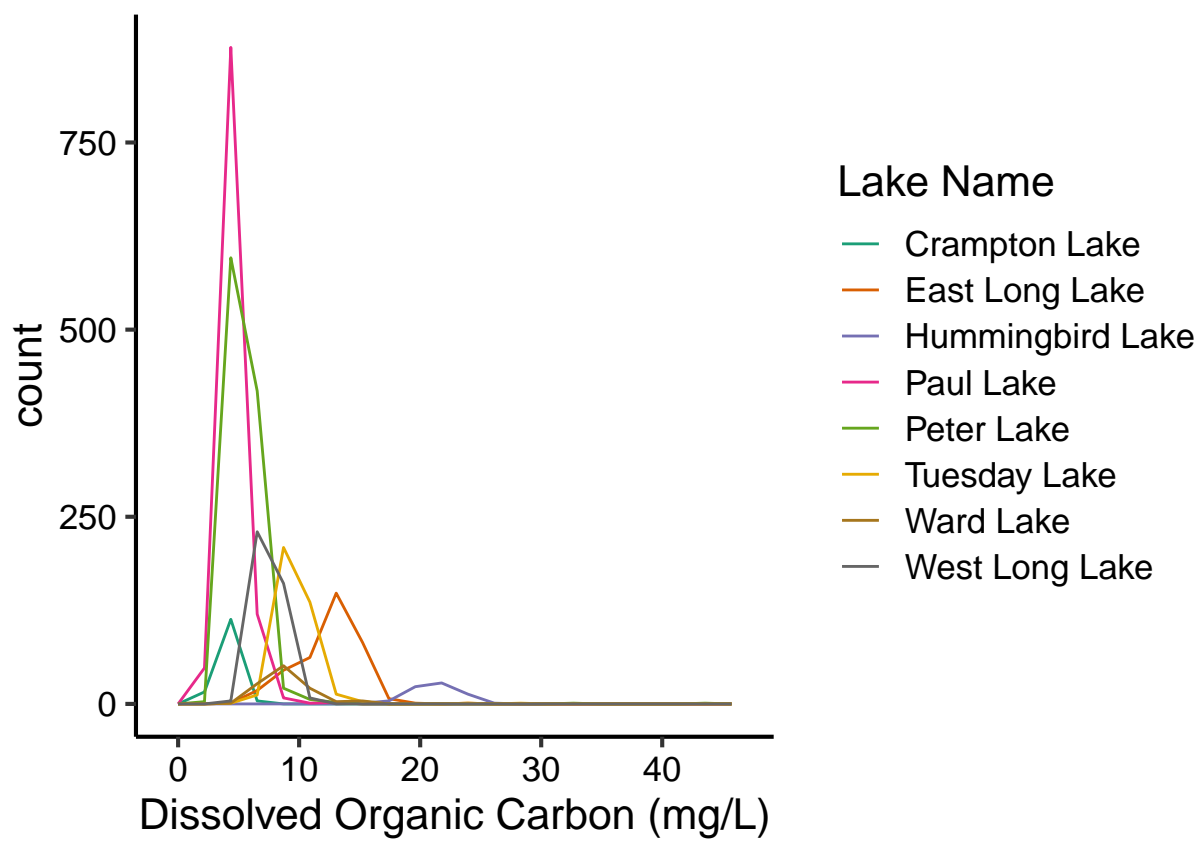


Figure 4: Dissolved Inorganic Carbon in each Lake

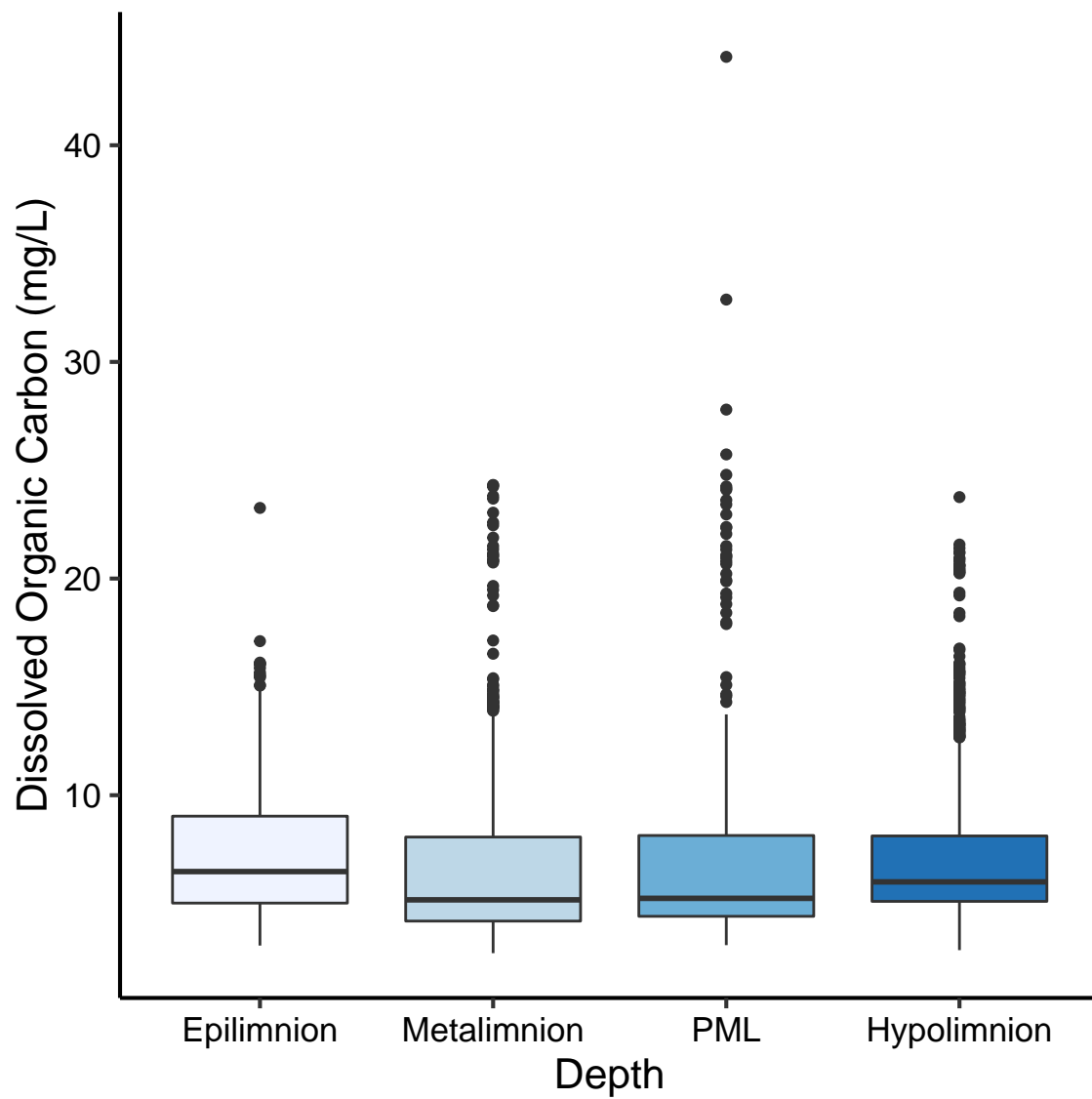


Figure 5: Dissolved Organic Carbon Varying with depth section of each lake. Depth increases from left to right in graph, with Epilimnion being the surface of the lake.

(water from deepest part of the lake) have greater medians than the Metalimnion or the pooled mixed layer (PML). However, the PML has the greatest distribution of dissolved organic carbon, with one sample that might be considered an outlier as seen in Figure 5.

Figure 6 shows the distribution of dissolved organic carbon (mg/L) in each depth layer faceted by each lake. From Figure 6, the PML of Peter lake has the greatest distribution of dissolved organic carbon (mg/L). Further, the distribution of dissolved organic carbon (mg/L) in each lake does not vary with depth.

Figure 7 shows dissolved organic carbon over the years. Figure 1 was created to determine if there was a pattern of dissolved organic carbon in lakes over the years. From Figure 7 only Peter, Paul, and West long lake were continuously sampled every year. Other lakes, such as Hummingbird lake, were only sampled between the late 1990s to the early 2000s.

Figure 9 shows the day number of the year plotted against dissolved organic carbon with different colors for each lake. From Figure 9 it is apparent that sampling was done mainly between days 140 and 250 of the year, which is during spring and summer months. There are a cluster of data points between 5mg/L and 15mg/L of dissolved organic carbon which indicates that there is likely not a linear relationship between dissolved organic carbon and time of year. Because of this, a time series analysis will be conducted as part of the statistical tests.

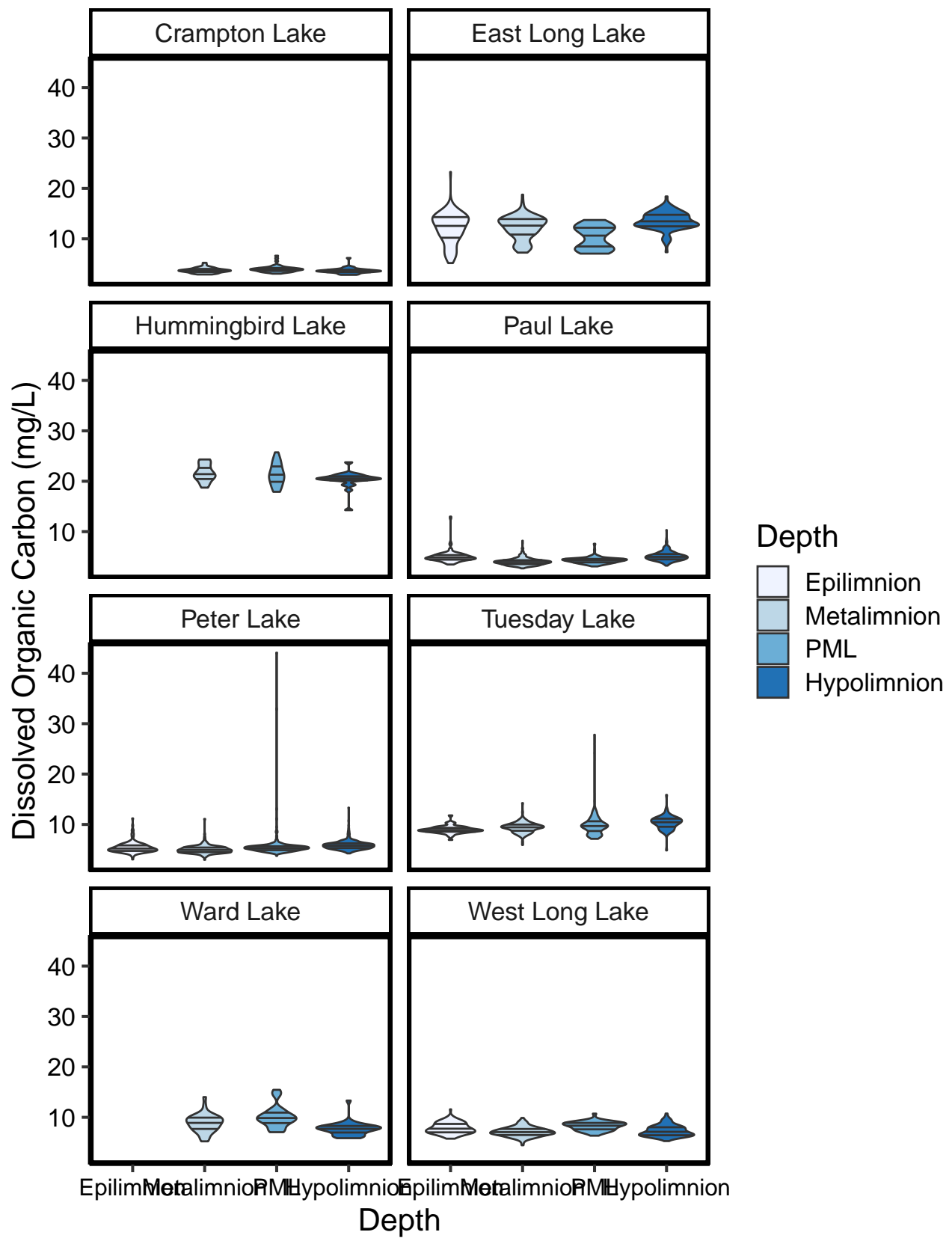


Figure 6: Dissolved Organic Carbon concentrations in each lake. Depth of lake is represented by various colors.

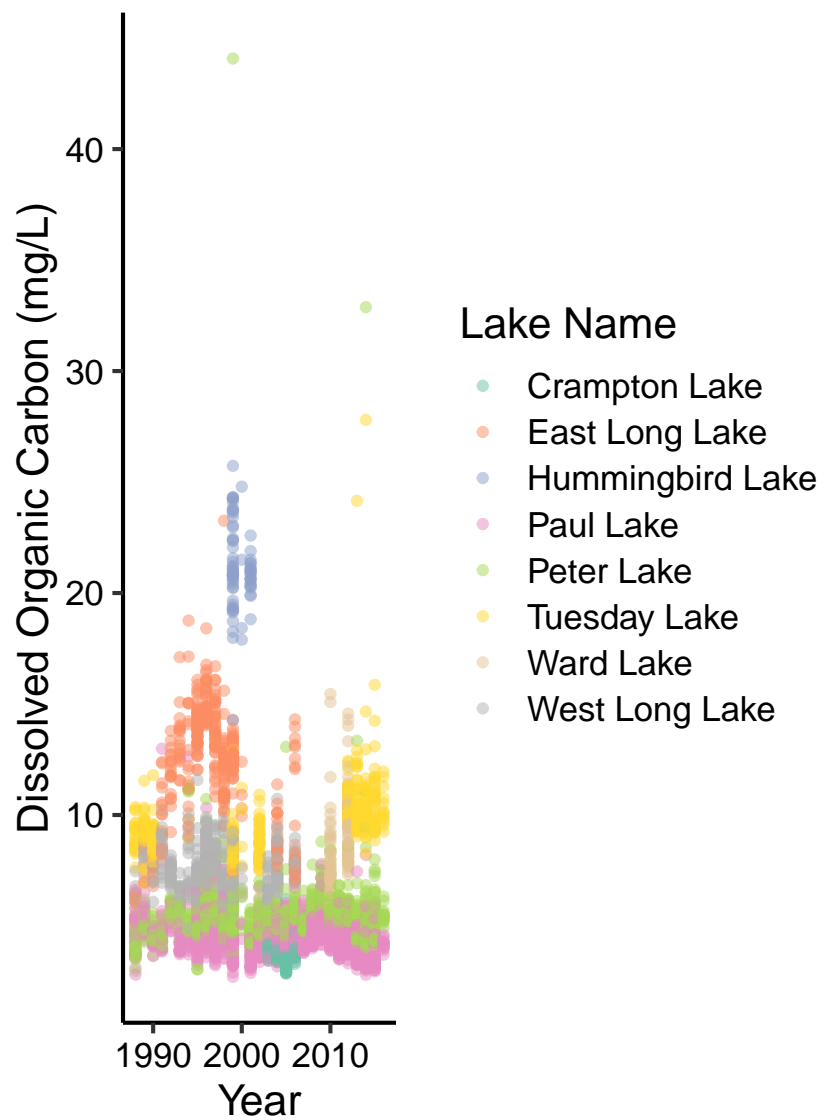


Figure 7: Dissolved organic carbon concentration over time with year on the x-axis.

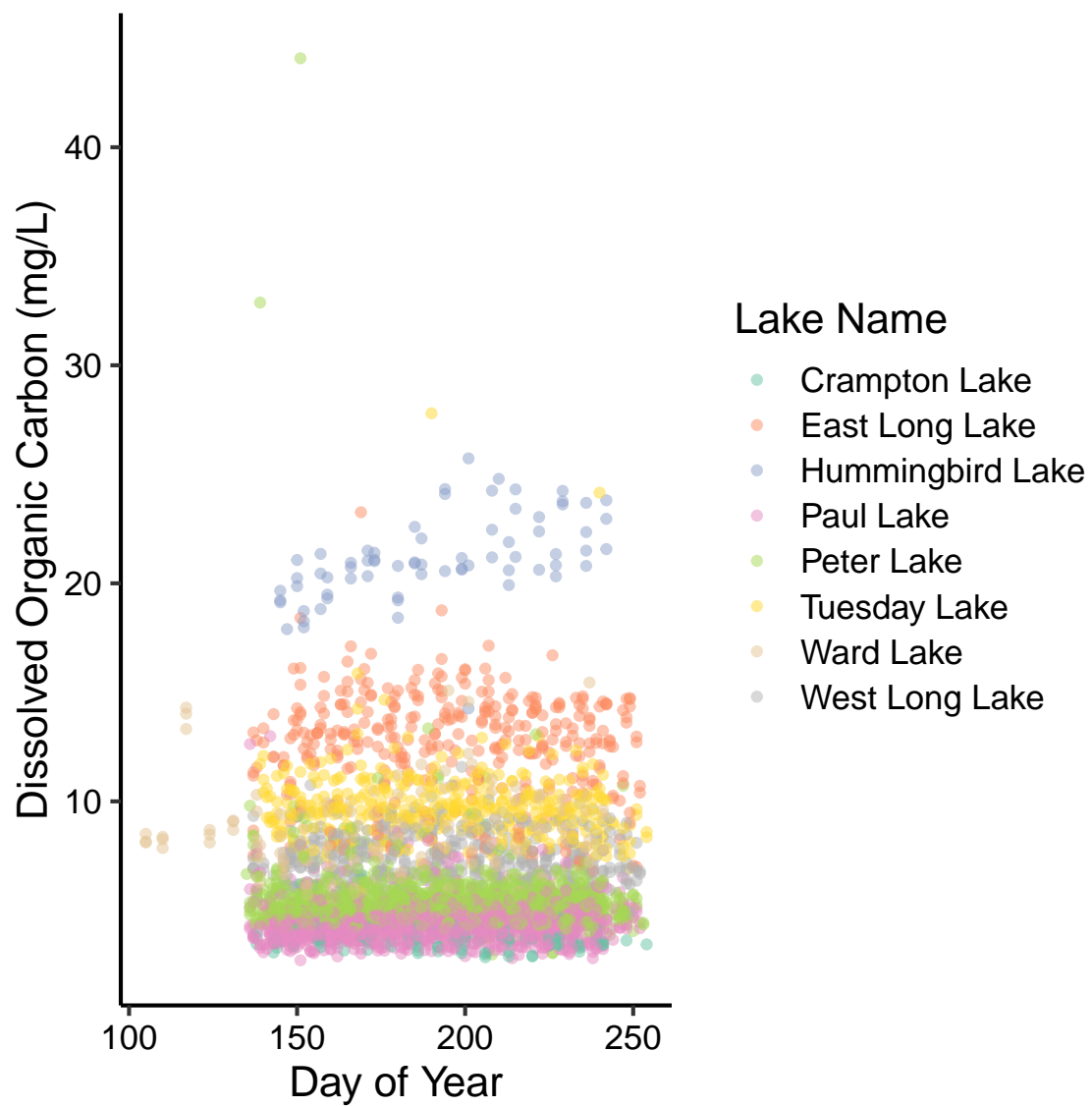


Figure 8: Dissolved organic carbon concentration over time with day number of the year on the x-axis.

4 Analysis

```
##
## Shapiro-Wilk normality test
##
## data: carbon.data.skinny$doc
## W = 0.79256, p-value < 2.2e-16

##
## Bartlett test of homogeneity of variances
##
## data: carbon.data.skinny$doc and carbon.data.skinny$depth
## Bartlett's K-squared = 53.202, df = 3, p-value = 1.66e-11

##              Df Sum Sq Mean Sq F value Pr(>F)
## depth          3    501      167   72.95 <2e-16 ***
## Lake.Name       7   37637    5377 2346.86 <2e-16 ***
## depth:Lake.Name 18    612      34   14.84 <2e-16 ***
## Residuals      3529    8085       2
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

##              Df Sum Sq Mean Sq F value Pr(>F)
## depth          3    16.0      5.34 193.33 <2e-16 ***
## Lake.Name       7   528.5    75.50 2735.83 <2e-16 ***
## depth:Lake.Name 18    10.9      0.61  21.93 <2e-16 ***
## Residuals      3529    97.4      0.03
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

## Tukey multiple comparisons of means
## 95% family-wise confidence level
##
## Fit: aov(formula = doc ~ depth * Lake.Name, data = carbon.data.skinny)
##
## $depth
##              diff              lwr              upr              p adj
## Metalimnion-Epilimnion -0.9834794 -1.18032627 -0.78663255 0.0000000
## PML-Epilimnion         -0.7136661 -0.92769569 -0.49963660 0.0000000
## Hypolimnion-Epilimnion -0.2676495 -0.47332431 -0.06197473 0.0046187
## PML-Metalimnion         0.2698133  0.09246689  0.44715963 0.0005438
## Hypolimnion-Metalimnion 0.7158299  0.54866169  0.88299808 0.0000000
## Hypolimnion-PML        0.4460166  0.25891995  0.63311330 0.0000000
##
## $Lake.Name
##              diff              lwr              upr
```

| | | | |
|------------------------------------|-------------|-------------|------------|
| ## East Long Lake-Crampton Lake | 8.3211329 | 7.8562012 | 8.786064 |
| ## Hummingbird Lake-Crampton Lake | 17.3136062 | 16.6357777 | 17.991435 |
| ## Paul Lake-Crampton Lake | 0.6466720 | 0.2243149 | 1.069029 |
| ## Peter Lake-Crampton Lake | 1.6039192 | 1.1813818 | 2.026457 |
| ## Tuesday Lake-Crampton Lake | 5.8894537 | 5.4263419 | 6.352565 |
| ## Ward Lake-Crampton Lake | 5.0604195 | 4.4642983 | 5.656541 |
| ## West Long Lake-Crampton Lake | 3.5245820 | 3.0655418 | 3.983622 |
| ## Hummingbird Lake-East Long Lake | 8.9924734 | 8.3935161 | 9.591431 |
| ## Paul Lake-East Long Lake | -7.6744608 | -7.9531790 | -7.395743 |
| ## Peter Lake-East Long Lake | -6.7172137 | -6.9962050 | -6.438222 |
| ## Tuesday Lake-East Long Lake | -2.4316792 | -2.7689785 | -2.094380 |
| ## Ward Lake-East Long Lake | -3.2607133 | -3.7653506 | -2.756076 |
| ## West Long Lake-East Long Lake | -4.7965508 | -5.1282377 | -4.464864 |
| ## Paul Lake-Hummingbird Lake | -16.6669342 | -17.2334798 | -16.100389 |
| ## Peter Lake-Hummingbird Lake | -15.7096871 | -16.2763671 | -15.143007 |
| ## Tuesday Lake-Hummingbird Lake | -11.4241526 | -12.0216983 | -10.826607 |
| ## Ward Lake-Hummingbird Lake | -12.2531867 | -12.9588417 | -11.547532 |
| ## West Long Lake-Hummingbird Lake | -13.7890242 | -14.3834200 | -13.194628 |
| ## Peter Lake-Paul Lake | 0.9572471 | 0.7570965 | 1.157398 |
| ## Tuesday Lake-Paul Lake | 5.2427816 | 4.9671099 | 5.518453 |
| ## Ward Lake-Paul Lake | 4.4137475 | 3.9480406 | 4.879454 |
| ## West Long Lake-Paul Lake | 2.8779100 | 2.6091344 | 3.146686 |
| ## Tuesday Lake-Peter Lake | 4.2855345 | 4.0095866 | 4.561482 |
| ## Ward Lake-Peter Lake | 3.4565003 | 2.9906299 | 3.922371 |
| ## West Long Lake-Peter Lake | 1.9206629 | 1.6516040 | 2.189722 |
| ## Ward Lake-Tuesday Lake | -0.8290342 | -1.3319953 | -0.326073 |
| ## West Long Lake-Tuesday Lake | -2.3648716 | -2.6940028 | -2.035741 |
| ## West Long Lake-Ward Lake | -1.5358375 | -2.0350522 | -1.036623 |
| ## | p adj | | |
| ## East Long Lake-Crampton Lake | 0.00e+00 | | |
| ## Hummingbird Lake-Crampton Lake | 0.00e+00 | | |
| ## Paul Lake-Crampton Lake | 9.64e-05 | | |
| ## Peter Lake-Crampton Lake | 0.00e+00 | | |
| ## Tuesday Lake-Crampton Lake | 0.00e+00 | | |
| ## Ward Lake-Crampton Lake | 0.00e+00 | | |
| ## West Long Lake-Crampton Lake | 0.00e+00 | | |
| ## Hummingbird Lake-East Long Lake | 0.00e+00 | | |
| ## Paul Lake-East Long Lake | 0.00e+00 | | |
| ## Peter Lake-East Long Lake | 0.00e+00 | | |
| ## Tuesday Lake-East Long Lake | 0.00e+00 | | |
| ## Ward Lake-East Long Lake | 0.00e+00 | | |
| ## West Long Lake-East Long Lake | 0.00e+00 | | |
| ## Paul Lake-Hummingbird Lake | 0.00e+00 | | |
| ## Peter Lake-Hummingbird Lake | 0.00e+00 | | |
| ## Tuesday Lake-Hummingbird Lake | 0.00e+00 | | |

| | |
|--|----------|
| ## Ward Lake-Hummingbird Lake | 0.00e+00 |
| ## West Long Lake-Hummingbird Lake | 0.00e+00 |
| ## Peter Lake-Paul Lake | 0.00e+00 |
| ## Tuesday Lake-Paul Lake | 0.00e+00 |
| ## Ward Lake-Paul Lake | 0.00e+00 |
| ## West Long Lake-Paul Lake | 0.00e+00 |
| ## Tuesday Lake-Peter Lake | 0.00e+00 |
| ## Ward Lake-Peter Lake | 0.00e+00 |
| ## West Long Lake-Peter Lake | 0.00e+00 |
| ## Ward Lake-Tuesday Lake | 1.67e-05 |
| ## West Long Lake-Tuesday Lake | 0.00e+00 |
| ## West Long Lake-Ward Lake | 0.00e+00 |
| ## | |
| ## \$`depth:Lake.Name` | |
| ## | diff |
| ## Metalimnion:Crampton Lake-Epilimnion:Crampton Lake | NA |
| ## PML:Crampton Lake-Epilimnion:Crampton Lake | NA |
| ## Hypolimnion:Crampton Lake-Epilimnion:Crampton Lake | NA |
| ## Epilimnion:East Long Lake-Epilimnion:Crampton Lake | NA |
| ## Metalimnion:East Long Lake-Epilimnion:Crampton Lake | NA |
| ## PML:East Long Lake-Epilimnion:Crampton Lake | NA |
| ## Hypolimnion:East Long Lake-Epilimnion:Crampton Lake | NA |
| ## Epilimnion:Hummingbird Lake-Epilimnion:Crampton Lake | NA |
| ## Metalimnion:Hummingbird Lake-Epilimnion:Crampton Lake | NA |
| ## PML:Hummingbird Lake-Epilimnion:Crampton Lake | NA |
| ## Hypolimnion:Hummingbird Lake-Epilimnion:Crampton Lake | NA |
| ## Epilimnion:Paul Lake-Epilimnion:Crampton Lake | NA |
| ## Metalimnion:Paul Lake-Epilimnion:Crampton Lake | NA |
| ## PML:Paul Lake-Epilimnion:Crampton Lake | NA |
| ## Hypolimnion:Paul Lake-Epilimnion:Crampton Lake | NA |
| ## Epilimnion:Peter Lake-Epilimnion:Crampton Lake | NA |
| ## Metalimnion:Peter Lake-Epilimnion:Crampton Lake | NA |
| ## PML:Peter Lake-Epilimnion:Crampton Lake | NA |
| ## Hypolimnion:Peter Lake-Epilimnion:Crampton Lake | NA |
| ## Epilimnion:Tuesday Lake-Epilimnion:Crampton Lake | NA |
| ## Metalimnion:Tuesday Lake-Epilimnion:Crampton Lake | NA |
| ## PML:Tuesday Lake-Epilimnion:Crampton Lake | NA |
| ## Hypolimnion:Tuesday Lake-Epilimnion:Crampton Lake | NA |
| ## Epilimnion:Ward Lake-Epilimnion:Crampton Lake | NA |
| ## Metalimnion:Ward Lake-Epilimnion:Crampton Lake | NA |
| ## PML:Ward Lake-Epilimnion:Crampton Lake | NA |
| ## Hypolimnion:Ward Lake-Epilimnion:Crampton Lake | NA |
| ## Epilimnion:West Long Lake-Epilimnion:Crampton Lake | NA |
| ## Metalimnion:West Long Lake-Epilimnion:Crampton Lake | NA |
| ## PML:West Long Lake-Epilimnion:Crampton Lake | NA |

| | |
|---|-------------|
| ## Hypolimnion:West Long Lake-Epilimnion:Crampton Lake | NA |
| ## PML:Crampton Lake-Metalimnion:Crampton Lake | 0.27550395 |
| ## Hypolimnion:Crampton Lake-Metalimnion:Crampton Lake | -0.08713002 |
| ## Epilimnion:East Long Lake-Metalimnion:Crampton Lake | 8.35303159 |
| ## Metalimnion:East Long Lake-Metalimnion:Crampton Lake | 8.46546188 |
| ## PML:East Long Lake-Metalimnion:Crampton Lake | 6.56325758 |
| ## Hypolimnion:East Long Lake-Metalimnion:Crampton Lake | 9.78436869 |
| ## Epilimnion:Hummingbird Lake-Metalimnion:Crampton Lake | NA |
| ## Metalimnion:Hummingbird Lake-Metalimnion:Crampton Lake | 17.92886364 |
| ## PML:Hummingbird Lake-Metalimnion:Crampton Lake | 17.58812937 |
| ## Hypolimnion:Hummingbird Lake-Metalimnion:Crampton Lake | 16.58886364 |
| ## Epilimnion:Paul Lake-Metalimnion:Crampton Lake | 1.28260490 |
| ## Metalimnion:Paul Lake-Metalimnion:Crampton Lake | 0.29459206 |
| ## PML:Paul Lake-Metalimnion:Crampton Lake | 0.54068902 |
| ## Hypolimnion:Paul Lake-Metalimnion:Crampton Lake | 1.37121437 |
| ## Epilimnion:Peter Lake-Metalimnion:Crampton Lake | 1.68443813 |
| ## Metalimnion:Peter Lake-Metalimnion:Crampton Lake | 1.29785963 |
| ## PML:Peter Lake-Metalimnion:Crampton Lake | 1.95881307 |
| ## Hypolimnion:Peter Lake-Metalimnion:Crampton Lake | 2.15511834 |
| ## Epilimnion:Tuesday Lake-Metalimnion:Crampton Lake | 5.23467602 |
| ## Metalimnion:Tuesday Lake-Metalimnion:Crampton Lake | 5.65662618 |
| ## PML:Tuesday Lake-Metalimnion:Crampton Lake | 6.24906483 |
| ## Hypolimnion:Tuesday Lake-Metalimnion:Crampton Lake | 6.62921745 |
| ## Epilimnion:Ward Lake-Metalimnion:Crampton Lake | NA |
| ## Metalimnion:Ward Lake-Metalimnion:Crampton Lake | 5.07631313 |
| ## PML:Ward Lake-Metalimnion:Crampton Lake | 6.34075758 |
| ## Hypolimnion:Ward Lake-Metalimnion:Crampton Lake | 3.93287662 |
| ## Epilimnion:West Long Lake-Metalimnion:Crampton Lake | 4.10625193 |
| ## Metalimnion:West Long Lake-Metalimnion:Crampton Lake | 3.37841573 |
| ## PML:West Long Lake-Metalimnion:Crampton Lake | 4.51137352 |
| ## Hypolimnion:West Long Lake-Metalimnion:Crampton Lake | 3.56031640 |
| ## Hypolimnion:Crampton Lake-PML:Crampton Lake | -0.36263397 |
| ## Epilimnion:East Long Lake-PML:Crampton Lake | 8.07752763 |
| ## Metalimnion:East Long Lake-PML:Crampton Lake | 8.18995792 |
| ## PML:East Long Lake-PML:Crampton Lake | 6.28775362 |
| ## Hypolimnion:East Long Lake-PML:Crampton Lake | 9.50886473 |
| ## Epilimnion:Hummingbird Lake-PML:Crampton Lake | NA |
| ## Metalimnion:Hummingbird Lake-PML:Crampton Lake | 17.65335968 |
| ## PML:Hummingbird Lake-PML:Crampton Lake | 17.31262542 |
| ## Hypolimnion:Hummingbird Lake-PML:Crampton Lake | 16.31335968 |
| ## Epilimnion:Paul Lake-PML:Crampton Lake | 1.00710094 |
| ## Metalimnion:Paul Lake-PML:Crampton Lake | 0.01908811 |
| ## PML:Paul Lake-PML:Crampton Lake | 0.26518506 |
| ## Hypolimnion:Paul Lake-PML:Crampton Lake | 1.09571042 |
| ## Epilimnion:Peter Lake-PML:Crampton Lake | 1.40893418 |

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| ## Metalimnion:Peter Lake-PML:Crampton Lake | 1.02235568 |
| ## PML:Peter Lake-PML:Crampton Lake | 1.68330911 |
| ## Hypolimnion:Peter Lake-PML:Crampton Lake | 1.87961439 |
| ## Epilimnion:Tuesday Lake-PML:Crampton Lake | 4.95917206 |
| ## Metalimnion:Tuesday Lake-PML:Crampton Lake | 5.38112223 |
| ## PML:Tuesday Lake-PML:Crampton Lake | 5.97356088 |
| ## Hypolimnion:Tuesday Lake-PML:Crampton Lake | 6.35371350 |
| ## Epilimnion:Ward Lake-PML:Crampton Lake | NA |
| ## Metalimnion:Ward Lake-PML:Crampton Lake | 4.80080918 |
| ## PML:Ward Lake-PML:Crampton Lake | 6.06525362 |
| ## Hypolimnion:Ward Lake-PML:Crampton Lake | 3.65737267 |
| ## Epilimnion:West Long Lake-PML:Crampton Lake | 3.83074797 |
| ## Metalimnion:West Long Lake-PML:Crampton Lake | 3.10291177 |
| ## PML:West Long Lake-PML:Crampton Lake | 4.23586957 |
| ## Hypolimnion:West Long Lake-PML:Crampton Lake | 3.28481245 |
| ## Epilimnion:East Long Lake-Hypolimnion:Crampton Lake | 8.44016161 |
| ## Metalimnion:East Long Lake-Hypolimnion:Crampton Lake | 8.55259190 |
| ## PML:East Long Lake-Hypolimnion:Crampton Lake | 6.65038760 |
| ## Hypolimnion:East Long Lake-Hypolimnion:Crampton Lake | 9.87149871 |
| ## Epilimnion:Hummingbird Lake-Hypolimnion:Crampton Lake | NA |
| ## Metalimnion:Hummingbird Lake-Hypolimnion:Crampton Lake | 18.01599366 |
| ## PML:Hummingbird Lake-Hypolimnion:Crampton Lake | 17.67525939 |
| ## Hypolimnion:Hummingbird Lake-Hypolimnion:Crampton Lake | 16.67599366 |
| ## Epilimnion:Paul Lake-Hypolimnion:Crampton Lake | 1.36973492 |
| ## Metalimnion:Paul Lake-Hypolimnion:Crampton Lake | 0.38172208 |
| ## PML:Paul Lake-Hypolimnion:Crampton Lake | 0.62781904 |
| ## Hypolimnion:Paul Lake-Hypolimnion:Crampton Lake | 1.45834440 |
| ## Epilimnion:Peter Lake-Hypolimnion:Crampton Lake | 1.77156815 |
| ## Metalimnion:Peter Lake-Hypolimnion:Crampton Lake | 1.38498966 |
| ## PML:Peter Lake-Hypolimnion:Crampton Lake | 2.04594309 |
| ## Hypolimnion:Peter Lake-Hypolimnion:Crampton Lake | 2.24224836 |
| ## Epilimnion:Tuesday Lake-Hypolimnion:Crampton Lake | 5.32180604 |
| ## Metalimnion:Tuesday Lake-Hypolimnion:Crampton Lake | 5.74375620 |
| ## PML:Tuesday Lake-Hypolimnion:Crampton Lake | 6.33619485 |
| ## Hypolimnion:Tuesday Lake-Hypolimnion:Crampton Lake | 6.71634747 |
| ## Epilimnion:Ward Lake-Hypolimnion:Crampton Lake | NA |
| ## Metalimnion:Ward Lake-Hypolimnion:Crampton Lake | 5.16344315 |
| ## PML:Ward Lake-Hypolimnion:Crampton Lake | 6.42788760 |
| ## Hypolimnion:Ward Lake-Hypolimnion:Crampton Lake | 4.02000664 |
| ## Epilimnion:West Long Lake-Hypolimnion:Crampton Lake | 4.19338195 |
| ## Metalimnion:West Long Lake-Hypolimnion:Crampton Lake | 3.46554575 |
| ## PML:West Long Lake-Hypolimnion:Crampton Lake | 4.59850354 |
| ## Hypolimnion:West Long Lake-Hypolimnion:Crampton Lake | 3.64744642 |
| ## Metalimnion:East Long Lake-Epilimnion:East Long Lake | 0.11243029 |
| ## PML:East Long Lake-Epilimnion:East Long Lake | -1.78977401 |

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| ## Hypolimnion:East Long Lake-Epilimnion:East Long Lake | 1.43133710 |
| ## Epilimnion:Hummingbird Lake-Epilimnion:East Long Lake | NA |
| ## Metalimnion:Hummingbird Lake-Epilimnion:East Long Lake | 9.57583205 |
| ## PML:Hummingbird Lake-Epilimnion:East Long Lake | 9.23509778 |
| ## Hypolimnion:Hummingbird Lake-Epilimnion:East Long Lake | 8.23583205 |
| ## Epilimnion:Paul Lake-Epilimnion:East Long Lake | -7.07042669 |
| ## Metalimnion:Paul Lake-Epilimnion:East Long Lake | -8.05843953 |
| ## PML:Paul Lake-Epilimnion:East Long Lake | -7.81234257 |
| ## Hypolimnion:Paul Lake-Epilimnion:East Long Lake | -6.98181721 |
| ## Epilimnion:Peter Lake-Epilimnion:East Long Lake | -6.66859346 |
| ## Metalimnion:Peter Lake-Epilimnion:East Long Lake | -7.05517195 |
| ## PML:Peter Lake-Epilimnion:East Long Lake | -6.39421852 |
| ## Hypolimnion:Peter Lake-Epilimnion:East Long Lake | -6.19791324 |
| ## Epilimnion:Tuesday Lake-Epilimnion:East Long Lake | -3.11835557 |
| ## Metalimnion:Tuesday Lake-Epilimnion:East Long Lake | -2.69640540 |
| ## PML:Tuesday Lake-Epilimnion:East Long Lake | -2.10396676 |
| ## Hypolimnion:Tuesday Lake-Epilimnion:East Long Lake | -1.72381414 |
| ## Epilimnion:Ward Lake-Epilimnion:East Long Lake | NA |
| ## Metalimnion:Ward Lake-Epilimnion:East Long Lake | -3.27671846 |
| ## PML:Ward Lake-Epilimnion:East Long Lake | -2.01227401 |
| ## Hypolimnion:Ward Lake-Epilimnion:East Long Lake | -4.42015496 |
| ## Epilimnion:West Long Lake-Epilimnion:East Long Lake | -4.24677966 |
| ## Metalimnion:West Long Lake-Epilimnion:East Long Lake | -4.97461586 |
| ## PML:West Long Lake-Epilimnion:East Long Lake | -3.84165807 |
| ## Hypolimnion:West Long Lake-Epilimnion:East Long Lake | -4.79271519 |
| ## PML:East Long Lake-Metalimnion:East Long Lake | -1.90220430 |
| ## Hypolimnion:East Long Lake-Metalimnion:East Long Lake | 1.31890681 |
| ## Epilimnion:Hummingbird Lake-Metalimnion:East Long Lake | NA |
| ## Metalimnion:Hummingbird Lake-Metalimnion:East Long Lake | 9.46340176 |
| ## PML:Hummingbird Lake-Metalimnion:East Long Lake | 9.12266749 |
| ## Hypolimnion:Hummingbird Lake-Metalimnion:East Long Lake | 8.12340176 |
| ## Epilimnion:Paul Lake-Metalimnion:East Long Lake | -7.18285698 |
| ## Metalimnion:Paul Lake-Metalimnion:East Long Lake | -8.17086982 |
| ## PML:Paul Lake-Metalimnion:East Long Lake | -7.92477286 |
| ## Hypolimnion:Paul Lake-Metalimnion:East Long Lake | -7.09424750 |
| ## Epilimnion:Peter Lake-Metalimnion:East Long Lake | -6.78102375 |
| ## Metalimnion:Peter Lake-Metalimnion:East Long Lake | -7.16760224 |
| ## PML:Peter Lake-Metalimnion:East Long Lake | -6.50664881 |
| ## Hypolimnion:Peter Lake-Metalimnion:East Long Lake | -6.31034353 |
| ## Epilimnion:Tuesday Lake-Metalimnion:East Long Lake | -3.23078586 |
| ## Metalimnion:Tuesday Lake-Metalimnion:East Long Lake | -2.80883569 |
| ## PML:Tuesday Lake-Metalimnion:East Long Lake | -2.21639704 |
| ## Hypolimnion:Tuesday Lake-Metalimnion:East Long Lake | -1.83624443 |
| ## Epilimnion:Ward Lake-Metalimnion:East Long Lake | NA |
| ## Metalimnion:Ward Lake-Metalimnion:East Long Lake | -3.38914875 |

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| ## PML:Ward Lake-Metalimnion:East Long Lake | -2.12470430 |
| ## Hypolimnion:Ward Lake-Metalimnion:East Long Lake | -4.53258525 |
| ## Epilimnion:West Long Lake-Metalimnion:East Long Lake | -4.35920995 |
| ## Metalimnion:West Long Lake-Metalimnion:East Long Lake | -5.08704615 |
| ## PML:West Long Lake-Metalimnion:East Long Lake | -3.95408836 |
| ## Hypolimnion:West Long Lake-Metalimnion:East Long Lake | -4.90514548 |
| ## Hypolimnion:East Long Lake-PML:East Long Lake | 3.22111111 |
| ## Epilimnion:Hummingbird Lake-PML:East Long Lake | NA |
| ## Metalimnion:Hummingbird Lake-PML:East Long Lake | 11.36560606 |
| ## PML:Hummingbird Lake-PML:East Long Lake | 11.02487179 |
| ## Hypolimnion:Hummingbird Lake-PML:East Long Lake | 10.02560606 |
| ## Epilimnion:Paul Lake-PML:East Long Lake | -5.28065268 |
| ## Metalimnion:Paul Lake-PML:East Long Lake | -6.26866552 |
| ## PML:Paul Lake-PML:East Long Lake | -6.02256856 |
| ## Hypolimnion:Paul Lake-PML:East Long Lake | -5.19204320 |
| ## Epilimnion:Peter Lake-PML:East Long Lake | -4.87881944 |
| ## Metalimnion:Peter Lake-PML:East Long Lake | -5.26539794 |
| ## PML:Peter Lake-PML:East Long Lake | -4.60444451 |
| ## Hypolimnion:Peter Lake-PML:East Long Lake | -4.40813923 |
| ## Epilimnion:Tuesday Lake-PML:East Long Lake | -1.32858156 |
| ## Metalimnion:Tuesday Lake-PML:East Long Lake | -0.90663139 |
| ## PML:Tuesday Lake-PML:East Long Lake | -0.31419274 |
| ## Hypolimnion:Tuesday Lake-PML:East Long Lake | 0.06595987 |
| ## Epilimnion:Ward Lake-PML:East Long Lake | NA |
| ## Metalimnion:Ward Lake-PML:East Long Lake | -1.48694444 |
| ## PML:Ward Lake-PML:East Long Lake | -0.22250000 |
| ## Hypolimnion:Ward Lake-PML:East Long Lake | -2.63038095 |
| ## Epilimnion:West Long Lake-PML:East Long Lake | -2.45700565 |
| ## Metalimnion:West Long Lake-PML:East Long Lake | -3.18484185 |
| ## PML:West Long Lake-PML:East Long Lake | -2.05188406 |
| ## Hypolimnion:West Long Lake-PML:East Long Lake | -3.00294118 |
| ## Epilimnion:Hummingbird Lake-Hypolimnion:East Long Lake | NA |
| ## Metalimnion:Hummingbird Lake-Hypolimnion:East Long Lake | 8.14449495 |
| ## PML:Hummingbird Lake-Hypolimnion:East Long Lake | 7.80376068 |
| ## Hypolimnion:Hummingbird Lake-Hypolimnion:East Long Lake | 6.80449495 |
| ## Epilimnion:Paul Lake-Hypolimnion:East Long Lake | -8.50176379 |
| ## Metalimnion:Paul Lake-Hypolimnion:East Long Lake | -9.48977663 |
| ## PML:Paul Lake-Hypolimnion:East Long Lake | -9.24367967 |
| ## Hypolimnion:Paul Lake-Hypolimnion:East Long Lake | -8.41315431 |
| ## Epilimnion:Peter Lake-Hypolimnion:East Long Lake | -8.09993056 |
| ## Metalimnion:Peter Lake-Hypolimnion:East Long Lake | -8.48650905 |
| ## PML:Peter Lake-Hypolimnion:East Long Lake | -7.82555562 |
| ## Hypolimnion:Peter Lake-Hypolimnion:East Long Lake | -7.62925034 |
| ## Epilimnion:Tuesday Lake-Hypolimnion:East Long Lake | -4.54969267 |
| ## Metalimnion:Tuesday Lake-Hypolimnion:East Long Lake | -4.12774250 |

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| ## PML:Tuesday Lake-Hypolimnion:East Long Lake | -3.53530385 |
| ## Hypolimnion:Tuesday Lake-Hypolimnion:East Long Lake | -3.15515124 |
| ## Epilimnion:Ward Lake-Hypolimnion:East Long Lake | NA |
| ## Metalimnion:Ward Lake-Hypolimnion:East Long Lake | -4.70805556 |
| ## PML:Ward Lake-Hypolimnion:East Long Lake | -3.44361111 |
| ## Hypolimnion:Ward Lake-Hypolimnion:East Long Lake | -5.85149206 |
| ## Epilimnion:West Long Lake-Hypolimnion:East Long Lake | -5.67811676 |
| ## Metalimnion:West Long Lake-Hypolimnion:East Long Lake | -6.40595296 |
| ## PML:West Long Lake-Hypolimnion:East Long Lake | -5.27299517 |
| ## Hypolimnion:West Long Lake-Hypolimnion:East Long Lake | -6.22405229 |
| ## Metalimnion:Hummingbird Lake-Epilimnion:Hummingbird Lake | NA |
| ## PML:Hummingbird Lake-Epilimnion:Hummingbird Lake | NA |
| ## Hypolimnion:Hummingbird Lake-Epilimnion:Hummingbird Lake | NA |
| ## Epilimnion:Paul Lake-Epilimnion:Hummingbird Lake | NA |
| ## Metalimnion:Paul Lake-Epilimnion:Hummingbird Lake | NA |
| ## PML:Paul Lake-Epilimnion:Hummingbird Lake | NA |
| ## Hypolimnion:Paul Lake-Epilimnion:Hummingbird Lake | NA |
| ## Epilimnion:Peter Lake-Epilimnion:Hummingbird Lake | NA |
| ## Metalimnion:Peter Lake-Epilimnion:Hummingbird Lake | NA |
| ## PML:Peter Lake-Epilimnion:Hummingbird Lake | NA |
| ## Hypolimnion:Peter Lake-Epilimnion:Hummingbird Lake | NA |
| ## Epilimnion:Tuesday Lake-Epilimnion:Hummingbird Lake | NA |
| ## Metalimnion:Tuesday Lake-Epilimnion:Hummingbird Lake | NA |
| ## PML:Tuesday Lake-Epilimnion:Hummingbird Lake | NA |
| ## Hypolimnion:Tuesday Lake-Epilimnion:Hummingbird Lake | NA |
| ## Epilimnion:Ward Lake-Epilimnion:Hummingbird Lake | NA |
| ## Metalimnion:Ward Lake-Epilimnion:Hummingbird Lake | NA |
| ## PML:Ward Lake-Epilimnion:Hummingbird Lake | NA |
| ## Hypolimnion:Ward Lake-Epilimnion:Hummingbird Lake | NA |
| ## Epilimnion:West Long Lake-Epilimnion:Hummingbird Lake | NA |
| ## Metalimnion:West Long Lake-Epilimnion:Hummingbird Lake | NA |
| ## PML:West Long Lake-Epilimnion:Hummingbird Lake | NA |
| ## Hypolimnion:West Long Lake-Epilimnion:Hummingbird Lake | NA |
| ## PML:Hummingbird Lake-Metalimnion:Hummingbird Lake | -0.34073427 |
| ## Hypolimnion:Hummingbird Lake-Metalimnion:Hummingbird Lake | -1.34000000 |
| ## Epilimnion:Paul Lake-Metalimnion:Hummingbird Lake | -16.64625874 |
| ## Metalimnion:Paul Lake-Metalimnion:Hummingbird Lake | -17.63427158 |
| ## PML:Paul Lake-Metalimnion:Hummingbird Lake | -17.38817462 |
| ## Hypolimnion:Paul Lake-Metalimnion:Hummingbird Lake | -16.55764926 |
| ## Epilimnion:Peter Lake-Metalimnion:Hummingbird Lake | -16.24442551 |
| ## Metalimnion:Peter Lake-Metalimnion:Hummingbird Lake | -16.63100400 |
| ## PML:Peter Lake-Metalimnion:Hummingbird Lake | -15.97005057 |
| ## Hypolimnion:Peter Lake-Metalimnion:Hummingbird Lake | -15.77374529 |
| ## Epilimnion:Tuesday Lake-Metalimnion:Hummingbird Lake | -12.69418762 |
| ## Metalimnion:Tuesday Lake-Metalimnion:Hummingbird Lake | -12.27223745 |

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| ## PML:Tuesday Lake-Metalimnion:Hummingbird Lake | -11.67979880 |
| ## Hypolimnion:Tuesday Lake-Metalimnion:Hummingbird Lake | -11.29964619 |
| ## Epilimnion:Ward Lake-Metalimnion:Hummingbird Lake | NA |
| ## Metalimnion:Ward Lake-Metalimnion:Hummingbird Lake | -12.85255051 |
| ## PML:Ward Lake-Metalimnion:Hummingbird Lake | -11.58810606 |
| ## Hypolimnion:Ward Lake-Metalimnion:Hummingbird Lake | -13.99598701 |
| ## Epilimnion:West Long Lake-Metalimnion:Hummingbird Lake | -13.82261171 |
| ## Metalimnion:West Long Lake-Metalimnion:Hummingbird Lake | -14.55044791 |
| ## PML:West Long Lake-Metalimnion:Hummingbird Lake | -13.41749012 |
| ## Hypolimnion:West Long Lake-Metalimnion:Hummingbird Lake | -14.36854724 |
| ## Hypolimnion:Hummingbird Lake-PML:Hummingbird Lake | -0.99926573 |
| ## Epilimnion:Paul Lake-PML:Hummingbird Lake | -16.30552448 |
| ## Metalimnion:Paul Lake-PML:Hummingbird Lake | -17.29353731 |
| ## PML:Paul Lake-PML:Hummingbird Lake | -17.04744035 |
| ## Hypolimnion:Paul Lake-PML:Hummingbird Lake | -16.21691500 |
| ## Epilimnion:Peter Lake-PML:Hummingbird Lake | -15.90369124 |
| ## Metalimnion:Peter Lake-PML:Hummingbird Lake | -16.29026974 |
| ## PML:Peter Lake-PML:Hummingbird Lake | -15.62931630 |
| ## Hypolimnion:Peter Lake-PML:Hummingbird Lake | -15.43301103 |
| ## Epilimnion:Tuesday Lake-PML:Hummingbird Lake | -12.35345336 |
| ## Metalimnion:Tuesday Lake-PML:Hummingbird Lake | -11.93150319 |
| ## PML:Tuesday Lake-PML:Hummingbird Lake | -11.33906454 |
| ## Hypolimnion:Tuesday Lake-PML:Hummingbird Lake | -10.95891192 |
| ## Epilimnion:Ward Lake-PML:Hummingbird Lake | NA |
| ## Metalimnion:Ward Lake-PML:Hummingbird Lake | -12.51181624 |
| ## PML:Ward Lake-PML:Hummingbird Lake | -11.24737179 |
| ## Hypolimnion:Ward Lake-PML:Hummingbird Lake | -13.65525275 |
| ## Epilimnion:West Long Lake-PML:Hummingbird Lake | -13.48187744 |
| ## Metalimnion:West Long Lake-PML:Hummingbird Lake | -14.20971364 |
| ## PML:West Long Lake-PML:Hummingbird Lake | -13.07675585 |
| ## Hypolimnion:West Long Lake-PML:Hummingbird Lake | -14.02781297 |
| ## Epilimnion:Paul Lake-Hypolimnion:Hummingbird Lake | -15.30625874 |
| ## Metalimnion:Paul Lake-Hypolimnion:Hummingbird Lake | -16.29427158 |
| ## PML:Paul Lake-Hypolimnion:Hummingbird Lake | -16.04817462 |
| ## Hypolimnion:Paul Lake-Hypolimnion:Hummingbird Lake | -15.21764926 |
| ## Epilimnion:Peter Lake-Hypolimnion:Hummingbird Lake | -14.90442551 |
| ## Metalimnion:Peter Lake-Hypolimnion:Hummingbird Lake | -15.29100400 |
| ## PML:Peter Lake-Hypolimnion:Hummingbird Lake | -14.63005057 |
| ## Hypolimnion:Peter Lake-Hypolimnion:Hummingbird Lake | -14.43374529 |
| ## Epilimnion:Tuesday Lake-Hypolimnion:Hummingbird Lake | -11.35418762 |
| ## Metalimnion:Tuesday Lake-Hypolimnion:Hummingbird Lake | -10.93223745 |
| ## PML:Tuesday Lake-Hypolimnion:Hummingbird Lake | -10.33979880 |
| ## Hypolimnion:Tuesday Lake-Hypolimnion:Hummingbird Lake | -9.95964619 |
| ## Epilimnion:Ward Lake-Hypolimnion:Hummingbird Lake | NA |
| ## Metalimnion:Ward Lake-Hypolimnion:Hummingbird Lake | -11.51255051 |

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| ## PML:Ward Lake-Hypolimnion:Hummingbird Lake | -10.24810606 |
| ## Hypolimnion:Ward Lake-Hypolimnion:Hummingbird Lake | -12.65598701 |
| ## Epilimnion:West Long Lake-Hypolimnion:Hummingbird Lake | -12.48261171 |
| ## Metalimnion:West Long Lake-Hypolimnion:Hummingbird Lake | -13.21044791 |
| ## PML:West Long Lake-Hypolimnion:Hummingbird Lake | -12.07749012 |
| ## Hypolimnion:West Long Lake-Hypolimnion:Hummingbird Lake | -13.02854724 |
| ## Metalimnion:Paul Lake-Epilimnion:Paul Lake | -0.98801284 |
| ## PML:Paul Lake-Epilimnion:Paul Lake | -0.74191588 |
| ## Hypolimnion:Paul Lake-Epilimnion:Paul Lake | 0.08860948 |
| ## Epilimnion:Peter Lake-Epilimnion:Paul Lake | 0.40183324 |
| ## Metalimnion:Peter Lake-Epilimnion:Paul Lake | 0.01525474 |
| ## PML:Peter Lake-Epilimnion:Paul Lake | 0.67620817 |
| ## Hypolimnion:Peter Lake-Epilimnion:Paul Lake | 0.87251345 |
| ## Epilimnion:Tuesday Lake-Epilimnion:Paul Lake | 3.95207112 |
| ## Metalimnion:Tuesday Lake-Epilimnion:Paul Lake | 4.37402129 |
| ## PML:Tuesday Lake-Epilimnion:Paul Lake | 4.96645994 |
| ## Hypolimnion:Tuesday Lake-Epilimnion:Paul Lake | 5.34661255 |
| ## Epilimnion:Ward Lake-Epilimnion:Paul Lake | NA |
| ## Metalimnion:Ward Lake-Epilimnion:Paul Lake | 3.79370824 |
| ## PML:Ward Lake-Epilimnion:Paul Lake | 5.05815268 |
| ## Hypolimnion:Ward Lake-Epilimnion:Paul Lake | 2.65027173 |
| ## Epilimnion:West Long Lake-Epilimnion:Paul Lake | 2.82364703 |
| ## Metalimnion:West Long Lake-Epilimnion:Paul Lake | 2.09581083 |
| ## PML:West Long Lake-Epilimnion:Paul Lake | 3.22876862 |
| ## Hypolimnion:West Long Lake-Epilimnion:Paul Lake | 2.27771150 |
| ## PML:Paul Lake-Metalimnion:Paul Lake | 0.24609696 |
| ## Hypolimnion:Paul Lake-Metalimnion:Paul Lake | 1.07662232 |
| ## Epilimnion:Peter Lake-Metalimnion:Paul Lake | 1.38984607 |
| ## Metalimnion:Peter Lake-Metalimnion:Paul Lake | 1.00326758 |
| ## PML:Peter Lake-Metalimnion:Paul Lake | 1.66422101 |
| ## Hypolimnion:Peter Lake-Metalimnion:Paul Lake | 1.86052629 |
| ## Epilimnion:Tuesday Lake-Metalimnion:Paul Lake | 4.94008396 |
| ## Metalimnion:Tuesday Lake-Metalimnion:Paul Lake | 5.36203412 |
| ## PML:Tuesday Lake-Metalimnion:Paul Lake | 5.95447277 |
| ## Hypolimnion:Tuesday Lake-Metalimnion:Paul Lake | 6.33462539 |
| ## Epilimnion:Ward Lake-Metalimnion:Paul Lake | NA |
| ## Metalimnion:Ward Lake-Metalimnion:Paul Lake | 4.78172107 |
| ## PML:Ward Lake-Metalimnion:Paul Lake | 6.04616552 |
| ## Hypolimnion:Ward Lake-Metalimnion:Paul Lake | 3.63828457 |
| ## Epilimnion:West Long Lake-Metalimnion:Paul Lake | 3.81165987 |
| ## Metalimnion:West Long Lake-Metalimnion:Paul Lake | 3.08382367 |
| ## PML:West Long Lake-Metalimnion:Paul Lake | 4.21678146 |
| ## Hypolimnion:West Long Lake-Metalimnion:Paul Lake | 3.26572434 |
| ## Hypolimnion:Paul Lake-PML:Paul Lake | 0.83052536 |
| ## Epilimnion:Peter Lake-PML:Paul Lake | 1.14374912 |

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| ## Metalimnion:Peter Lake-PML:Paul Lake | 0.75717062 |
| ## PML:Peter Lake-PML:Paul Lake | 1.41812405 |
| ## Hypolimnion:Peter Lake-PML:Paul Lake | 1.61442933 |
| ## Epilimnion:Tuesday Lake-PML:Paul Lake | 4.69398700 |
| ## Metalimnion:Tuesday Lake-PML:Paul Lake | 5.11593717 |
| ## PML:Tuesday Lake-PML:Paul Lake | 5.70837582 |
| ## Hypolimnion:Tuesday Lake-PML:Paul Lake | 6.08852843 |
| ## Epilimnion:Ward Lake-PML:Paul Lake | NA |
| ## Metalimnion:Ward Lake-PML:Paul Lake | 4.53562412 |
| ## PML:Ward Lake-PML:Paul Lake | 5.80006856 |
| ## Hypolimnion:Ward Lake-PML:Paul Lake | 3.39218761 |
| ## Epilimnion:West Long Lake-PML:Paul Lake | 3.56556291 |
| ## Metalimnion:West Long Lake-PML:Paul Lake | 2.83772671 |
| ## PML:West Long Lake-PML:Paul Lake | 3.97068450 |
| ## Hypolimnion:West Long Lake-PML:Paul Lake | 3.01962738 |
| ## Epilimnion:Peter Lake-Hypolimnion:Paul Lake | 0.31322376 |
| ## Metalimnion:Peter Lake-Hypolimnion:Paul Lake | -0.07335474 |
| ## PML:Peter Lake-Hypolimnion:Paul Lake | 0.58759869 |
| ## Hypolimnion:Peter Lake-Hypolimnion:Paul Lake | 0.78390397 |
| ## Epilimnion:Tuesday Lake-Hypolimnion:Paul Lake | 3.86346164 |
| ## Metalimnion:Tuesday Lake-Hypolimnion:Paul Lake | 4.28541181 |
| ## PML:Tuesday Lake-Hypolimnion:Paul Lake | 4.87785046 |
| ## Hypolimnion:Tuesday Lake-Hypolimnion:Paul Lake | 5.25800307 |
| ## Epilimnion:Ward Lake-Hypolimnion:Paul Lake | NA |
| ## Metalimnion:Ward Lake-Hypolimnion:Paul Lake | 3.70509876 |
| ## PML:Ward Lake-Hypolimnion:Paul Lake | 4.96954320 |
| ## Hypolimnion:Ward Lake-Hypolimnion:Paul Lake | 2.56166225 |
| ## Epilimnion:West Long Lake-Hypolimnion:Paul Lake | 2.73503755 |
| ## Metalimnion:West Long Lake-Hypolimnion:Paul Lake | 2.00720135 |
| ## PML:West Long Lake-Hypolimnion:Paul Lake | 3.14015914 |
| ## Hypolimnion:West Long Lake-Hypolimnion:Paul Lake | 2.18910202 |
| ## Metalimnion:Peter Lake-Epilimnion:Peter Lake | -0.38657850 |
| ## PML:Peter Lake-Epilimnion:Peter Lake | 0.27437494 |
| ## Hypolimnion:Peter Lake-Epilimnion:Peter Lake | 0.47068021 |
| ## Epilimnion:Tuesday Lake-Epilimnion:Peter Lake | 3.55023788 |
| ## Metalimnion:Tuesday Lake-Epilimnion:Peter Lake | 3.97218805 |
| ## PML:Tuesday Lake-Epilimnion:Peter Lake | 4.56462670 |
| ## Hypolimnion:Tuesday Lake-Epilimnion:Peter Lake | 4.94477932 |
| ## Epilimnion:Ward Lake-Epilimnion:Peter Lake | NA |
| ## Metalimnion:Ward Lake-Epilimnion:Peter Lake | 3.39187500 |
| ## PML:Ward Lake-Epilimnion:Peter Lake | 4.65631944 |
| ## Hypolimnion:Ward Lake-Epilimnion:Peter Lake | 2.24843849 |
| ## Epilimnion:West Long Lake-Epilimnion:Peter Lake | 2.42181379 |
| ## Metalimnion:West Long Lake-Epilimnion:Peter Lake | 1.69397760 |
| ## PML:West Long Lake-Epilimnion:Peter Lake | 2.82693539 |

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| ## Hypolimnion:West Long Lake-Epilimnion:Peter Lake | 1.87587827 |
| ## PML:Peter Lake-Metalimnion:Peter Lake | 0.66095343 |
| ## Hypolimnion:Peter Lake-Metalimnion:Peter Lake | 0.85725871 |
| ## Epilimnion:Tuesday Lake-Metalimnion:Peter Lake | 3.93681638 |
| ## Metalimnion:Tuesday Lake-Metalimnion:Peter Lake | 4.35876655 |
| ## PML:Tuesday Lake-Metalimnion:Peter Lake | 4.95120520 |
| ## Hypolimnion:Tuesday Lake-Metalimnion:Peter Lake | 5.33135781 |
| ## Epilimnion:Ward Lake-Metalimnion:Peter Lake | NA |
| ## Metalimnion:Ward Lake-Metalimnion:Peter Lake | 3.77845350 |
| ## PML:Ward Lake-Metalimnion:Peter Lake | 5.04289794 |
| ## Hypolimnion:Ward Lake-Metalimnion:Peter Lake | 2.63501699 |
| ## Epilimnion:West Long Lake-Metalimnion:Peter Lake | 2.80839229 |
| ## Metalimnion:West Long Lake-Metalimnion:Peter Lake | 2.08055609 |
| ## PML:West Long Lake-Metalimnion:Peter Lake | 3.21351388 |
| ## Hypolimnion:West Long Lake-Metalimnion:Peter Lake | 2.26245676 |
| ## Hypolimnion:Peter Lake-PML:Peter Lake | 0.19630528 |
| ## Epilimnion:Tuesday Lake-PML:Peter Lake | 3.27586295 |
| ## Metalimnion:Tuesday Lake-PML:Peter Lake | 3.69781312 |
| ## PML:Tuesday Lake-PML:Peter Lake | 4.29025177 |
| ## Hypolimnion:Tuesday Lake-PML:Peter Lake | 4.67040438 |
| ## Epilimnion:Ward Lake-PML:Peter Lake | NA |
| ## Metalimnion:Ward Lake-PML:Peter Lake | 3.11750006 |
| ## PML:Ward Lake-PML:Peter Lake | 4.38194451 |
| ## Hypolimnion:Ward Lake-PML:Peter Lake | 1.97406356 |
| ## Epilimnion:West Long Lake-PML:Peter Lake | 2.14743886 |
| ## Metalimnion:West Long Lake-PML:Peter Lake | 1.41960266 |
| ## PML:West Long Lake-PML:Peter Lake | 2.55256045 |
| ## Hypolimnion:West Long Lake-PML:Peter Lake | 1.60150333 |
| ## Epilimnion:Tuesday Lake-Hypolimnion:Peter Lake | 3.07955767 |
| ## Metalimnion:Tuesday Lake-Hypolimnion:Peter Lake | 3.50150784 |
| ## PML:Tuesday Lake-Hypolimnion:Peter Lake | 4.09394649 |
| ## Hypolimnion:Tuesday Lake-Hypolimnion:Peter Lake | 4.47409910 |
| ## Epilimnion:Ward Lake-Hypolimnion:Peter Lake | NA |
| ## Metalimnion:Ward Lake-Hypolimnion:Peter Lake | 2.92119479 |
| ## PML:Ward Lake-Hypolimnion:Peter Lake | 4.18563923 |
| ## Hypolimnion:Ward Lake-Hypolimnion:Peter Lake | 1.77775828 |
| ## Epilimnion:West Long Lake-Hypolimnion:Peter Lake | 1.95113358 |
| ## Metalimnion:West Long Lake-Hypolimnion:Peter Lake | 1.22329738 |
| ## PML:West Long Lake-Hypolimnion:Peter Lake | 2.35625517 |
| ## Hypolimnion:West Long Lake-Hypolimnion:Peter Lake | 1.40519806 |
| ## Metalimnion:Tuesday Lake-Epilimnion:Tuesday Lake | 0.42195017 |
| ## PML:Tuesday Lake-Epilimnion:Tuesday Lake | 1.01438882 |
| ## Hypolimnion:Tuesday Lake-Epilimnion:Tuesday Lake | 1.39454143 |
| ## Epilimnion:Ward Lake-Epilimnion:Tuesday Lake | NA |
| ## Metalimnion:Ward Lake-Epilimnion:Tuesday Lake | -0.15836288 |

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| ## PML:Ward Lake-Epilimnion:Tuesday Lake | 1.10608156 |
| ## Hypolimnion:Ward Lake-Epilimnion:Tuesday Lake | -1.30179939 |
| ## Epilimnion:West Long Lake-Epilimnion:Tuesday Lake | -1.12842409 |
| ## Metalimnion:West Long Lake-Epilimnion:Tuesday Lake | -1.85626029 |
| ## PML:West Long Lake-Epilimnion:Tuesday Lake | -0.72330250 |
| ## Hypolimnion:West Long Lake-Epilimnion:Tuesday Lake | -1.67435962 |
| ## PML:Tuesday Lake-Metalimnion:Tuesday Lake | 0.59243865 |
| ## Hypolimnion:Tuesday Lake-Metalimnion:Tuesday Lake | 0.97259127 |
| ## Epilimnion:Ward Lake-Metalimnion:Tuesday Lake | NA |
| ## Metalimnion:Ward Lake-Metalimnion:Tuesday Lake | -0.58031305 |
| ## PML:Ward Lake-Metalimnion:Tuesday Lake | 0.68413139 |
| ## Hypolimnion:Ward Lake-Metalimnion:Tuesday Lake | -1.72374956 |
| ## Epilimnion:West Long Lake-Metalimnion:Tuesday Lake | -1.55037426 |
| ## Metalimnion:West Long Lake-Metalimnion:Tuesday Lake | -2.27821046 |
| ## PML:West Long Lake-Metalimnion:Tuesday Lake | -1.14525266 |
| ## Hypolimnion:West Long Lake-Metalimnion:Tuesday Lake | -2.09630978 |
| ## Hypolimnion:Tuesday Lake-PML:Tuesday Lake | 0.38015262 |
| ## Epilimnion:Ward Lake-PML:Tuesday Lake | NA |
| ## Metalimnion:Ward Lake-PML:Tuesday Lake | -1.17275170 |
| ## PML:Ward Lake-PML:Tuesday Lake | 0.09169274 |
| ## Hypolimnion:Ward Lake-PML:Tuesday Lake | -2.31618821 |
| ## Epilimnion:West Long Lake-PML:Tuesday Lake | -2.14281291 |
| ## Metalimnion:West Long Lake-PML:Tuesday Lake | -2.87064911 |
| ## PML:West Long Lake-PML:Tuesday Lake | -1.73769131 |
| ## Hypolimnion:West Long Lake-PML:Tuesday Lake | -2.68874843 |
| ## Epilimnion:Ward Lake-Hypolimnion:Tuesday Lake | NA |
| ## Metalimnion:Ward Lake-Hypolimnion:Tuesday Lake | -1.55290432 |
| ## PML:Ward Lake-Hypolimnion:Tuesday Lake | -0.28845987 |
| ## Hypolimnion:Ward Lake-Hypolimnion:Tuesday Lake | -2.69634082 |
| ## Epilimnion:West Long Lake-Hypolimnion:Tuesday Lake | -2.52296552 |
| ## Metalimnion:West Long Lake-Hypolimnion:Tuesday Lake | -3.25080172 |
| ## PML:West Long Lake-Hypolimnion:Tuesday Lake | -2.11784393 |
| ## Hypolimnion:West Long Lake-Hypolimnion:Tuesday Lake | -3.06890105 |
| ## Metalimnion:Ward Lake-Epilimnion:Ward Lake | NA |
| ## PML:Ward Lake-Epilimnion:Ward Lake | NA |
| ## Hypolimnion:Ward Lake-Epilimnion:Ward Lake | NA |
| ## Epilimnion:West Long Lake-Epilimnion:Ward Lake | NA |
| ## Metalimnion:West Long Lake-Epilimnion:Ward Lake | NA |
| ## PML:West Long Lake-Epilimnion:Ward Lake | NA |
| ## Hypolimnion:West Long Lake-Epilimnion:Ward Lake | NA |
| ## PML:Ward Lake-Metalimnion:Ward Lake | 1.26444444 |
| ## Hypolimnion:Ward Lake-Metalimnion:Ward Lake | -1.14343651 |
| ## Epilimnion:West Long Lake-Metalimnion:Ward Lake | -0.97006121 |
| ## Metalimnion:West Long Lake-Metalimnion:Ward Lake | -1.69789740 |
| ## PML:West Long Lake-Metalimnion:Ward Lake | -0.56493961 |

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| ## Hypolimnion:West Long Lake-Metalimnion:Ward Lake | -1.51599673 |
| ## Hypolimnion:Ward Lake-PML:Ward Lake | -2.40788095 |
| ## Epilimnion:West Long Lake-PML:Ward Lake | -2.23450565 |
| ## Metalimnion:West Long Lake-PML:Ward Lake | -2.96234185 |
| ## PML:West Long Lake-PML:Ward Lake | -1.82938406 |
| ## Hypolimnion:West Long Lake-PML:Ward Lake | -2.78044118 |
| ## Epilimnion:West Long Lake-Hypolimnion:Ward Lake | 0.17337530 |
| ## Metalimnion:West Long Lake-Hypolimnion:Ward Lake | -0.55446090 |
| ## PML:West Long Lake-Hypolimnion:Ward Lake | 0.57849689 |
| ## Hypolimnion:West Long Lake-Hypolimnion:Ward Lake | -0.37256022 |
| ## Metalimnion:West Long Lake-Epilimnion:West Long Lake | -0.72783620 |
| ## PML:West Long Lake-Epilimnion:West Long Lake | 0.40512159 |
| ## Hypolimnion:West Long Lake-Epilimnion:West Long Lake | -0.54593553 |
| ## PML:West Long Lake-Metalimnion:West Long Lake | 1.13295779 |
| ## Hypolimnion:West Long Lake-Metalimnion:West Long Lake | 0.18190067 |
| ## Hypolimnion:West Long Lake-PML:West Long Lake | -0.95105712 |
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| ## Metalimnion:Crampton Lake-Epilimnion:Crampton Lake | NA |
| ## PML:Crampton Lake-Epilimnion:Crampton Lake | NA |
| ## Hypolimnion:Crampton Lake-Epilimnion:Crampton Lake | NA |
| ## Epilimnion:East Long Lake-Epilimnion:Crampton Lake | NA |
| ## Metalimnion:East Long Lake-Epilimnion:Crampton Lake | NA |
| ## PML:East Long Lake-Epilimnion:Crampton Lake | NA |
| ## Hypolimnion:East Long Lake-Epilimnion:Crampton Lake | NA |
| ## Epilimnion:Hummingbird Lake-Epilimnion:Crampton Lake | NA |
| ## Metalimnion:Hummingbird Lake-Epilimnion:Crampton Lake | NA |
| ## PML:Hummingbird Lake-Epilimnion:Crampton Lake | NA |
| ## Hypolimnion:Hummingbird Lake-Epilimnion:Crampton Lake | NA |
| ## Epilimnion:Paul Lake-Epilimnion:Crampton Lake | NA |
| ## Metalimnion:Paul Lake-Epilimnion:Crampton Lake | NA |
| ## PML:Paul Lake-Epilimnion:Crampton Lake | NA |
| ## Hypolimnion:Paul Lake-Epilimnion:Crampton Lake | NA |
| ## Epilimnion:Peter Lake-Epilimnion:Crampton Lake | NA |
| ## Metalimnion:Peter Lake-Epilimnion:Crampton Lake | NA |
| ## PML:Peter Lake-Epilimnion:Crampton Lake | NA |
| ## Hypolimnion:Peter Lake-Epilimnion:Crampton Lake | NA |
| ## Epilimnion:Tuesday Lake-Epilimnion:Crampton Lake | NA |
| ## Metalimnion:Tuesday Lake-Epilimnion:Crampton Lake | NA |
| ## PML:Tuesday Lake-Epilimnion:Crampton Lake | NA |
| ## Hypolimnion:Tuesday Lake-Epilimnion:Crampton Lake | NA |
| ## Epilimnion:Ward Lake-Epilimnion:Crampton Lake | NA |
| ## Metalimnion:Ward Lake-Epilimnion:Crampton Lake | NA |
| ## PML:Ward Lake-Epilimnion:Crampton Lake | NA |
| ## Hypolimnion:Ward Lake-Epilimnion:Crampton Lake | NA |
| ## Epilimnion:West Long Lake-Epilimnion:Crampton Lake | NA |

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| ## Metalimnion:West Long Lake-Epilimnion:Crampton Lake | NA |
| ## PML:West Long Lake-Epilimnion:Crampton Lake | NA |
| ## Hypolimnion:West Long Lake-Epilimnion:Crampton Lake | NA |
| ## PML:Crampton Lake-Metalimnion:Crampton Lake | -0.93208537 |
| ## Hypolimnion:Crampton Lake-Metalimnion:Crampton Lake | -1.31514121 |
| ## Epilimnion:East Long Lake-Metalimnion:Crampton Lake | 7.34146744 |
| ## Metalimnion:East Long Lake-Metalimnion:Crampton Lake | 7.46056679 |
| ## PML:East Long Lake-Metalimnion:Crampton Lake | 5.24449894 |
| ## Hypolimnion:East Long Lake-Metalimnion:Crampton Lake | 8.73093290 |
| ## Epilimnion:Hummingbird Lake-Metalimnion:Crampton Lake | NA |
| ## Metalimnion:Hummingbird Lake-Metalimnion:Crampton Lake | 16.43353189 |
| ## PML:Hummingbird Lake-Metalimnion:Crampton Lake | 16.17155536 |
| ## Hypolimnion:Hummingbird Lake-Metalimnion:Crampton Lake | 15.09353189 |
| ## Epilimnion:Paul Lake-Metalimnion:Crampton Lake | 0.29534906 |
| ## Metalimnion:Paul Lake-Metalimnion:Crampton Lake | -0.61823927 |
| ## PML:Paul Lake-Metalimnion:Crampton Lake | -0.39581806 |
| ## Hypolimnion:Paul Lake-Metalimnion:Crampton Lake | 0.44491188 |
| ## Epilimnion:Peter Lake-Metalimnion:Crampton Lake | 0.69798921 |
| ## Metalimnion:Peter Lake-Metalimnion:Crampton Lake | 0.38463791 |
| ## PML:Peter Lake-Metalimnion:Crampton Lake | 1.02115865 |
| ## Hypolimnion:Peter Lake-Metalimnion:Crampton Lake | 1.22839496 |
| ## Epilimnion:Tuesday Lake-Metalimnion:Crampton Lake | 4.03338372 |
| ## Metalimnion:Tuesday Lake-Metalimnion:Crampton Lake | 4.66251134 |
| ## PML:Tuesday Lake-Metalimnion:Crampton Lake | 5.22063324 |
| ## Hypolimnion:Tuesday Lake-Metalimnion:Crampton Lake | 5.57384016 |
| ## Epilimnion:Ward Lake-Metalimnion:Crampton Lake | NA |
| ## Metalimnion:Ward Lake-Metalimnion:Crampton Lake | 3.78933648 |
| ## PML:Ward Lake-Metalimnion:Crampton Lake | 5.05378092 |
| ## Hypolimnion:Ward Lake-Metalimnion:Crampton Lake | 2.63582743 |
| ## Epilimnion:West Long Lake-Metalimnion:Crampton Lake | 3.09468778 |
| ## Metalimnion:West Long Lake-Metalimnion:Crampton Lake | 2.38608617 |
| ## PML:West Long Lake-Metalimnion:Crampton Lake | 3.30378420 |
| ## Hypolimnion:West Long Lake-Metalimnion:Crampton Lake | 2.52742832 |
| ## Hypolimnion:Crampton Lake-PML:Crampton Lake | -1.57737898 |
| ## Epilimnion:East Long Lake-PML:Crampton Lake | 7.08211014 |
| ## Metalimnion:East Long Lake-PML:Crampton Lake | 7.20131841 |
| ## PML:East Long Lake-PML:Crampton Lake | 4.98133933 |
| ## Hypolimnion:East Long Lake-PML:Crampton Lake | 8.47092402 |
| ## Epilimnion:Hummingbird Lake-PML:Crampton Lake | NA |
| ## Metalimnion:Hummingbird Lake-PML:Crampton Lake | 16.16890323 |
| ## PML:Hummingbird Lake-PML:Crampton Lake | 15.90753613 |
| ## Hypolimnion:Hummingbird Lake-PML:Crampton Lake | 14.82890323 |
| ## Epilimnion:Paul Lake-PML:Crampton Lake | 0.03639602 |
| ## Metalimnion:Paul Lake-PML:Crampton Lake | -0.87581691 |
| ## PML:Paul Lake-PML:Crampton Lake | -0.65385762 |

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| ## Hypolimnion:Paul Lake-PML:Crampton Lake | 0.18706843 |
| ## Epilimnion:Peter Lake-PML:Crampton Lake | 0.43904994 |
| ## Metalimnion:Peter Lake-PML:Crampton Lake | 0.12705245 |
| ## PML:Peter Lake-PML:Crampton Lake | 0.76309731 |
| ## Hypolimnion:Peter Lake-PML:Crampton Lake | 0.97054334 |
| ## Epilimnion:Tuesday Lake-PML:Crampton Lake | 3.77144434 |
| ## Metalimnion:Tuesday Lake-PML:Crampton Lake | 4.40344219 |
| ## PML:Tuesday Lake-PML:Crampton Lake | 4.96100693 |
| ## Hypolimnion:Tuesday Lake-PML:Crampton Lake | 5.31380236 |
| ## Epilimnion:Ward Lake-PML:Crampton Lake | NA |
| ## Metalimnion:Ward Lake-PML:Crampton Lake | 3.52648471 |
| ## PML:Ward Lake-PML:Crampton Lake | 4.79092915 |
| ## Hypolimnion:Ward Lake-PML:Crampton Lake | 2.37287644 |
| ## Epilimnion:West Long Lake-PML:Crampton Lake | 2.83533048 |
| ## Metalimnion:West Long Lake-PML:Crampton Lake | 2.12704707 |
| ## PML:West Long Lake-PML:Crampton Lake | 3.04177329 |
| ## Hypolimnion:West Long Lake-PML:Crampton Lake | 2.26773244 |
| ## Epilimnion:East Long Lake-Hypolimnion:Crampton Lake | 7.42006578 |
| ## Metalimnion:East Long Lake-Hypolimnion:Crampton Lake | 7.53910899 |
| ## PML:East Long Lake-Hypolimnion:Crampton Lake | 5.32507337 |
| ## Hypolimnion:East Long Lake-Hypolimnion:Crampton Lake | 8.80986768 |
| ## Epilimnion:Hummingbird Lake-Hypolimnion:Crampton Lake | NA |
| ## Metalimnion:Hummingbird Lake-Hypolimnion:Crampton Lake | 16.51487725 |
| ## PML:Hummingbird Lake-Hypolimnion:Crampton Lake | 16.25258044 |
| ## Hypolimnion:Hummingbird Lake-Hypolimnion:Crampton Lake | 15.17487725 |
| ## Epilimnion:Paul Lake-Hypolimnion:Crampton Lake | 0.37373916 |
| ## Metalimnion:Paul Lake-Hypolimnion:Crampton Lake | -0.54055472 |
| ## PML:Paul Lake-Hypolimnion:Crampton Lake | -0.31789707 |
| ## Hypolimnion:Paul Lake-Hypolimnion:Crampton Lake | 0.52273242 |
| ## Epilimnion:Peter Lake-Hypolimnion:Crampton Lake | 0.77637222 |
| ## Metalimnion:Peter Lake-Hypolimnion:Crampton Lake | 0.46232646 |
| ## PML:Peter Lake-Hypolimnion:Crampton Lake | 1.09909079 |
| ## Hypolimnion:Peter Lake-Hypolimnion:Crampton Lake | 1.30621968 |
| ## Epilimnion:Tuesday Lake-Hypolimnion:Crampton Lake | 4.11332077 |
| ## Metalimnion:Tuesday Lake-Hypolimnion:Crampton Lake | 4.74096122 |
| ## PML:Tuesday Lake-Hypolimnion:Crampton Lake | 5.29937037 |
| ## Hypolimnion:Tuesday Lake-Hypolimnion:Crampton Lake | 5.65278991 |
| ## Epilimnion:Ward Lake-Hypolimnion:Crampton Lake | NA |
| ## Metalimnion:Ward Lake-Hypolimnion:Crampton Lake | 3.86974985 |
| ## PML:Ward Lake-Hypolimnion:Crampton Lake | 5.13419429 |
| ## Hypolimnion:Ward Lake-Hypolimnion:Crampton Lake | 2.71629269 |
| ## Epilimnion:West Long Lake-Hypolimnion:Crampton Lake | 3.17328612 |
| ## Metalimnion:West Long Lake-Hypolimnion:Crampton Lake | 2.46452056 |
| ## PML:West Long Lake-Hypolimnion:Crampton Lake | 3.38375853 |
| ## Hypolimnion:West Long Lake-Hypolimnion:Crampton Lake | 2.60620137 |

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| ## Metalimnion:East Long Lake-Epilimnion:East Long Lake | -0.62404656 |
| ## PML:East Long Lake-Epilimnion:East Long Lake | -2.91747449 |
| ## Hypolimnion:East Long Lake-Epilimnion:East Long Lake | 0.62989404 |
| ## Epilimnion:Hummingbird Lake-Epilimnion:East Long Lake | NA |
| ## Metalimnion:Hummingbird Lake-Epilimnion:East Long Lake | 8.24594445 |
| ## PML:Hummingbird Lake-Epilimnion:East Long Lake | 7.99442621 |
| ## Hypolimnion:Hummingbird Lake-Epilimnion:East Long Lake | 6.90594445 |
| ## Epilimnion:Paul Lake-Epilimnion:East Long Lake | -7.78264723 |
| ## Metalimnion:Paul Lake-Epilimnion:East Long Lake | -8.66329079 |
| ## PML:Paul Lake-Epilimnion:East Long Lake | -8.45236563 |
| ## Hypolimnion:Paul Lake-Epilimnion:East Long Lake | -7.60681347 |
| ## Epilimnion:Peter Lake-Epilimnion:East Long Lake | -7.37969506 |
| ## Metalimnion:Peter Lake-Epilimnion:East Long Lake | -7.66061223 |
| ## PML:Peter Lake-Epilimnion:East Long Lake | -7.03591925 |
| ## Hypolimnion:Peter Lake-Epilimnion:East Long Lake | -6.82353313 |
| ## Epilimnion:Tuesday Lake-Epilimnion:East Long Lake | -4.10612437 |
| ## Metalimnion:Tuesday Lake-Epilimnion:East Long Lake | -3.41810363 |
| ## PML:Tuesday Lake-Epilimnion:East Long Lake | -2.87224766 |
| ## Hypolimnion:Tuesday Lake-Epilimnion:East Long Lake | -2.52780744 |
| ## Epilimnion:Ward Lake-Epilimnion:East Long Lake | NA |
| ## Metalimnion:Ward Lake-Epilimnion:East Long Lake | -4.36708212 |
| ## PML:Ward Lake-Epilimnion:East Long Lake | -3.10263767 |
| ## Hypolimnion:Ward Lake-Epilimnion:East Long Lake | -5.52238934 |
| ## Epilimnion:West Long Lake-Epilimnion:East Long Lake | -4.99233049 |
| ## Metalimnion:West Long Lake-Epilimnion:East Long Lake | -5.69385294 |
| ## PML:West Long Lake-Epilimnion:East Long Lake | -4.83707556 |
| ## Hypolimnion:West Long Lake-Epilimnion:East Long Lake | -5.56695146 |
| ## PML:East Long Lake-Metalimnion:East Long Lake | -3.02392640 |
| ## Hypolimnion:East Long Lake-Metalimnion:East Long Lake | 0.52589793 |
| ## Epilimnion:Hummingbird Lake-Metalimnion:East Long Lake | NA |
| ## Metalimnion:Hummingbird Lake-Metalimnion:East Long Lake | 8.13857983 |
| ## PML:Hummingbird Lake-Metalimnion:East Long Lake | 7.88742741 |
| ## Hypolimnion:Hummingbird Lake-Metalimnion:East Long Lake | 6.79857983 |
| ## Epilimnion:Paul Lake-Metalimnion:East Long Lake | -7.88557329 |
| ## Metalimnion:Paul Lake-Metalimnion:East Long Lake | -8.76450031 |
| ## PML:Paul Lake-Metalimnion:East Long Lake | -8.55420246 |
| ## Hypolimnion:Paul Lake-Metalimnion:East Long Lake | -7.70839116 |
| ## Epilimnion:Peter Lake-Metalimnion:East Long Lake | -7.48260596 |
| ## Metalimnion:Peter Lake-Metalimnion:East Long Lake | -7.76183287 |
| ## PML:Peter Lake-Metalimnion:East Long Lake | -7.13778424 |
| ## Hypolimnion:Peter Lake-Metalimnion:East Long Lake | -6.92512183 |
| ## Epilimnion:Tuesday Lake-Metalimnion:East Long Lake | -4.21172383 |
| ## Metalimnion:Tuesday Lake-Metalimnion:East Long Lake | -3.52115615 |
| ## PML:Tuesday Lake-Metalimnion:East Long Lake | -2.97587559 |
| ## Hypolimnion:Tuesday Lake-Metalimnion:East Long Lake | -2.63183059 |

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| ## Epilimnion:Ward Lake-Metalimnion:East Long Lake | NA |
| ## Metalimnion:Ward Lake-Metalimnion:East Long Lake | -4.47332817 |
| ## PML:Ward Lake-Metalimnion:East Long Lake | -3.20888373 |
| ## Hypolimnion:Ward Lake-Metalimnion:East Long Lake | -5.62870237 |
| ## Epilimnion:West Long Lake-Metalimnion:East Long Lake | -5.09568680 |
| ## Metalimnion:West Long Lake-Metalimnion:East Long Lake | -5.79687295 |
| ## PML:West Long Lake-Metalimnion:East Long Lake | -4.94272788 |
| ## Hypolimnion:West Long Lake-Metalimnion:East Long Lake | -5.67064787 |
| ## Hypolimnion:East Long Lake-PML:East Long Lake | 2.05570419 |
| ## Epilimnion:Hummingbird Lake-PML:East Long Lake | NA |
| ## Metalimnion:Hummingbird Lake-PML:East Long Lake | 9.78938801 |
| ## PML:Hummingbird Lake-PML:East Long Lake | 9.52316334 |
| ## Hypolimnion:Hummingbird Lake-PML:East Long Lake | 8.44938801 |
| ## Epilimnion:Paul Lake-PML:East Long Lake | -6.38660043 |
| ## Metalimnion:Paul Lake-PML:East Long Lake | -7.30871714 |
| ## PML:Paul Lake-PML:East Long Lake | -7.08346056 |
| ## Hypolimnion:Paul Lake-PML:East Long Lake | -6.24393799 |
| ## Epilimnion:Peter Lake-PML:East Long Lake | -5.98404694 |
| ## Metalimnion:Peter Lake-PML:East Long Lake | -6.30579222 |
| ## PML:Peter Lake-PML:East Long Lake | -5.66634947 |
| ## Hypolimnion:Peter Lake-PML:East Long Lake | -5.46040467 |
| ## Epilimnion:Tuesday Lake-PML:East Long Lake | -2.62917739 |
| ## Metalimnion:Tuesday Lake-PML:East Long Lake | -2.01870632 |
| ## PML:Tuesday Lake-PML:East Long Lake | -1.45704789 |
| ## Hypolimnion:Tuesday Lake-PML:East Long Lake | -1.10120230 |
| ## Epilimnion:Ward Lake-PML:East Long Lake | NA |
| ## Metalimnion:Ward Lake-PML:East Long Lake | -2.86707315 |
| ## PML:Ward Lake-PML:East Long Lake | -1.60262870 |
| ## Hypolimnion:Ward Lake-PML:East Long Lake | -4.01990711 |
| ## Epilimnion:West Long Lake-PML:East Long Lake | -3.58470612 |
| ## Metalimnion:West Long Lake-PML:East Long Lake | -4.29532116 |
| ## PML:West Long Lake-PML:East Long Lake | -3.35829835 |
| ## Hypolimnion:West Long Lake-PML:East Long Lake | -4.14980827 |
| ## Epilimnion:Hummingbird Lake-Hypolimnion:East Long Lake | NA |
| ## Metalimnion:Hummingbird Lake-Hypolimnion:East Long Lake | 6.78248688 |
| ## PML:Hummingbird Lake-Hypolimnion:East Long Lake | 6.52871916 |
| ## Hypolimnion:Hummingbird Lake-Hypolimnion:East Long Lake | 5.44248688 |
| ## Epilimnion:Paul Lake-Hypolimnion:East Long Lake | -9.27229805 |
| ## Metalimnion:Paul Lake-Hypolimnion:East Long Lake | -10.16231658 |
| ## PML:Paul Lake-Hypolimnion:East Long Lake | -9.94801940 |
| ## Hypolimnion:Paul Lake-Hypolimnion:East Long Lake | -9.10386790 |
| ## Epilimnion:Peter Lake-Hypolimnion:East Long Lake | -8.86943067 |
| ## Metalimnion:Peter Lake-Hypolimnion:East Long Lake | -9.15957879 |
| ## PML:Peter Lake-Hypolimnion:East Long Lake | -8.53142017 |
| ## Hypolimnion:Peter Lake-Hypolimnion:East Long Lake | -8.32052827 |

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| ## Epilimnion:Tuesday Lake-Hypolimnion:East Long Lake | -5.58030032 |
| ## Metalimnion:Tuesday Lake-Hypolimnion:East Long Lake | -4.90704557 |
| ## PML:Tuesday Lake-Hypolimnion:East Long Lake | -4.35793408 |
| ## Hypolimnion:Tuesday Lake-Hypolimnion:East Long Lake | -4.01122960 |
| ## Epilimnion:Ward Lake-Hypolimnion:East Long Lake | NA |
| ## Metalimnion:Ward Lake-Hypolimnion:East Long Lake | -5.83737298 |
| ## PML:Ward Lake-Hypolimnion:East Long Lake | -4.57292854 |
| ## Hypolimnion:Ward Lake-Hypolimnion:East Long Lake | -6.99227494 |
| ## Epilimnion:West Long Lake-Hypolimnion:East Long Lake | -6.47955982 |
| ## Metalimnion:West Long Lake-Hypolimnion:East Long Lake | -7.18297735 |
| ## PML:West Long Lake-Hypolimnion:East Long Lake | -6.31093588 |
| ## Hypolimnion:West Long Lake-Hypolimnion:East Long Lake | -7.05224716 |
| ## Metalimnion:Hummingbird Lake-Epilimnion:Hummingbird Lake | NA |
| ## PML:Hummingbird Lake-Epilimnion:Hummingbird Lake | NA |
| ## Hypolimnion:Hummingbird Lake-Epilimnion:Hummingbird Lake | NA |
| ## Epilimnion:Paul Lake-Epilimnion:Hummingbird Lake | NA |
| ## Metalimnion:Paul Lake-Epilimnion:Hummingbird Lake | NA |
| ## PML:Paul Lake-Epilimnion:Hummingbird Lake | NA |
| ## Hypolimnion:Paul Lake-Epilimnion:Hummingbird Lake | NA |
| ## Epilimnion:Peter Lake-Epilimnion:Hummingbird Lake | NA |
| ## Metalimnion:Peter Lake-Epilimnion:Hummingbird Lake | NA |
| ## PML:Peter Lake-Epilimnion:Hummingbird Lake | NA |
| ## Hypolimnion:Peter Lake-Epilimnion:Hummingbird Lake | NA |
| ## Epilimnion:Tuesday Lake-Epilimnion:Hummingbird Lake | NA |
| ## Metalimnion:Tuesday Lake-Epilimnion:Hummingbird Lake | NA |
| ## PML:Tuesday Lake-Epilimnion:Hummingbird Lake | NA |
| ## Hypolimnion:Tuesday Lake-Epilimnion:Hummingbird Lake | NA |
| ## Epilimnion:Ward Lake-Epilimnion:Hummingbird Lake | NA |
| ## Metalimnion:Ward Lake-Epilimnion:Hummingbird Lake | NA |
| ## PML:Ward Lake-Epilimnion:Hummingbird Lake | NA |
| ## Hypolimnion:Ward Lake-Epilimnion:Hummingbird Lake | NA |
| ## Epilimnion:West Long Lake-Epilimnion:Hummingbird Lake | NA |
| ## Metalimnion:West Long Lake-Epilimnion:Hummingbird Lake | NA |
| ## PML:West Long Lake-Epilimnion:Hummingbird Lake | NA |
| ## Hypolimnion:West Long Lake-Epilimnion:Hummingbird Lake | NA |
| ## PML:Hummingbird Lake-Metalimnion:Hummingbird Lake | -1.99965589 |
| ## Hypolimnion:Hummingbird Lake-Metalimnion:Hummingbird Lake | -3.06666037 |
| ## Epilimnion:Paul Lake-Metalimnion:Hummingbird Lake | -17.95775144 |
| ## Metalimnion:Paul Lake-Metalimnion:Hummingbird Lake | -18.89069509 |
| ## PML:Paul Lake-Metalimnion:Hummingbird Lake | -18.66190320 |
| ## Hypolimnion:Paul Lake-Metalimnion:Hummingbird Lake | -17.82389383 |
| ## Epilimnion:Peter Lake-Metalimnion:Hummingbird Lake | -17.55531089 |
| ## Metalimnion:Peter Lake-Metalimnion:Hummingbird Lake | -17.88771118 |
| ## PML:Peter Lake-Metalimnion:Hummingbird Lake | -17.24462297 |
| ## Hypolimnion:Peter Lake-Metalimnion:Hummingbird Lake | -17.04029779 |

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| ## Epilimnion:Tuesday Lake-Metalimnion:Hummingbird Lake | -14.17352605 |
| ## Metalimnion:Tuesday Lake-Metalimnion:Hummingbird Lake | -13.58890116 |
| ## PML:Tuesday Lake-Metalimnion:Hummingbird Lake | -13.02256109 |
| ## Hypolimnion:Tuesday Lake-Metalimnion:Hummingbird Lake | -12.66315644 |
| ## Epilimnion:Ward Lake-Metalimnion:Hummingbird Lake | NA |
| ## Metalimnion:Ward Lake-Metalimnion:Hummingbird Lake | -14.40227561 |
| ## PML:Ward Lake-Metalimnion:Hummingbird Lake | -13.13783117 |
| ## Hypolimnion:Ward Lake-Metalimnion:Hummingbird Lake | -15.55408702 |
| ## Epilimnion:West Long Lake-Metalimnion:Hummingbird Lake | -15.15249931 |
| ## Metalimnion:West Long Lake-Metalimnion:Hummingbird Lake | -15.86576421 |
| ## PML:West Long Lake-Metalimnion:Hummingbird Lake | -14.90194658 |
| ## Hypolimnion:West Long Lake-Metalimnion:Hummingbird Lake | -15.71472583 |
| ## Hypolimnion:Hummingbird Lake-PML:Hummingbird Lake | -2.65818736 |
| ## Epilimnion:Paul Lake-PML:Hummingbird Lake | -17.52645773 |
| ## Metalimnion:Paul Lake-PML:Hummingbird Lake | -18.45511596 |
| ## PML:Paul Lake-PML:Hummingbird Lake | -18.22771550 |
| ## Hypolimnion:Paul Lake-PML:Hummingbird Lake | -17.38910962 |
| ## Epilimnion:Peter Lake-PML:Hummingbird Lake | -17.12397211 |
| ## Metalimnion:Peter Lake-PML:Hummingbird Lake | -17.45215520 |
| ## PML:Peter Lake-PML:Hummingbird Lake | -16.81050204 |
| ## Hypolimnion:Peter Lake-PML:Hummingbird Lake | -16.60553828 |
| ## Epilimnion:Tuesday Lake-PML:Hummingbird Lake | -13.75313443 |
| ## Metalimnion:Tuesday Lake-PML:Hummingbird Lake | -13.15798932 |
| ## PML:Tuesday Lake-PML:Hummingbird Lake | -12.59352676 |
| ## Hypolimnion:Tuesday Lake-PML:Hummingbird Lake | -12.23555797 |
| ## Epilimnion:Ward Lake-PML:Hummingbird Lake | NA |
| ## Metalimnion:Ward Lake-PML:Hummingbird Lake | -13.98569304 |
| ## PML:Ward Lake-PML:Hummingbird Lake | -12.72124860 |
| ## Hypolimnion:Ward Lake-PML:Hummingbird Lake | -15.13793294 |
| ## Epilimnion:West Long Lake-PML:Hummingbird Lake | -14.72254902 |
| ## Metalimnion:West Long Lake-PML:Hummingbird Lake | -15.43475319 |
| ## PML:West Long Lake-PML:Hummingbird Lake | -14.48184514 |
| ## Hypolimnion:West Long Lake-PML:Hummingbird Lake | -15.28593130 |
| ## Epilimnion:Paul Lake-Hypolimnion:Hummingbird Lake | -16.61775144 |
| ## Metalimnion:Paul Lake-Hypolimnion:Hummingbird Lake | -17.55069509 |
| ## PML:Paul Lake-Hypolimnion:Hummingbird Lake | -17.32190320 |
| ## Hypolimnion:Paul Lake-Hypolimnion:Hummingbird Lake | -16.48389383 |
| ## Epilimnion:Peter Lake-Hypolimnion:Hummingbird Lake | -16.21531089 |
| ## Metalimnion:Peter Lake-Hypolimnion:Hummingbird Lake | -16.54771118 |
| ## PML:Peter Lake-Hypolimnion:Hummingbird Lake | -15.90462297 |
| ## Hypolimnion:Peter Lake-Hypolimnion:Hummingbird Lake | -15.70029779 |
| ## Epilimnion:Tuesday Lake-Hypolimnion:Hummingbird Lake | -12.83352605 |
| ## Metalimnion:Tuesday Lake-Hypolimnion:Hummingbird Lake | -12.24890116 |
| ## PML:Tuesday Lake-Hypolimnion:Hummingbird Lake | -11.68256109 |
| ## Hypolimnion:Tuesday Lake-Hypolimnion:Hummingbird Lake | -11.32315644 |

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| ## Epilimnion:Ward Lake-Hypolimnion:Hummingbird Lake | NA |
| ## Metalimnion:Ward Lake-Hypolimnion:Hummingbird Lake | -13.06227561 |
| ## PML:Ward Lake-Hypolimnion:Hummingbird Lake | -11.79783117 |
| ## Hypolimnion:Ward Lake-Hypolimnion:Hummingbird Lake | -14.21408702 |
| ## Epilimnion:West Long Lake-Hypolimnion:Hummingbird Lake | -13.81249931 |
| ## Metalimnion:West Long Lake-Hypolimnion:Hummingbird Lake | -14.52576421 |
| ## PML:West Long Lake-Hypolimnion:Hummingbird Lake | -13.56194658 |
| ## Hypolimnion:West Long Lake-Hypolimnion:Hummingbird Lake | -14.37472583 |
| ## Metalimnion:Paul Lake-Epilimnion:Paul Lake | -1.55126865 |
| ## PML:Paul Lake-Epilimnion:Paul Lake | -1.34278323 |
| ## Hypolimnion:Paul Lake-Epilimnion:Paul Lake | -0.49622587 |
| ## Epilimnion:Peter Lake-Epilimnion:Paul Lake | -0.27424187 |
| ## Metalimnion:Peter Lake-Epilimnion:Paul Lake | -0.54863354 |
| ## PML:Peter Lake-Epilimnion:Paul Lake | 0.07355414 |
| ## Hypolimnion:Peter Lake-Epilimnion:Paul Lake | 0.28701170 |
| ## Epilimnion:Tuesday Lake-Epilimnion:Paul Lake | 2.98921119 |
| ## Metalimnion:Tuesday Lake-Epilimnion:Paul Lake | 3.68680925 |
| ## PML:Tuesday Lake-Epilimnion:Paul Lake | 4.23047922 |
| ## Hypolimnion:Tuesday Lake-Epilimnion:Paul Lake | 4.57342610 |
| ## Epilimnion:Ward Lake-Epilimnion:Paul Lake | NA |
| ## Metalimnion:Ward Lake-Epilimnion:Paul Lake | 2.72585760 |
| ## PML:Ward Lake-Epilimnion:Paul Lake | 3.99030205 |
| ## Hypolimnion:Ward Lake-Epilimnion:Paul Lake | 1.57030289 |
| ## Epilimnion:West Long Lake-Epilimnion:Paul Lake | 2.11142649 |
| ## Metalimnion:West Long Lake-Epilimnion:Paul Lake | 1.41118390 |
| ## PML:West Long Lake-Epilimnion:Paul Lake | 2.25806370 |
| ## Hypolimnion:West Long Lake-Epilimnion:Paul Lake | 1.53551620 |
| ## PML:Paul Lake-Metalimnion:Paul Lake | -0.22254845 |
| ## Hypolimnion:Paul Lake-Metalimnion:Paul Lake | 0.62871682 |
| ## Epilimnion:Peter Lake-Metalimnion:Paul Lake | 0.82800579 |
| ## Metalimnion:Peter Lake-Metalimnion:Paul Lake | 0.58308079 |
| ## PML:Peter Lake-Metalimnion:Paul Lake | 1.19328701 |
| ## Hypolimnion:Peter Lake-Metalimnion:Paul Lake | 1.41175101 |
| ## Epilimnion:Tuesday Lake-Metalimnion:Paul Lake | 4.05369454 |
| ## Metalimnion:Tuesday Lake-Metalimnion:Paul Lake | 4.78684082 |
| ## PML:Tuesday Lake-Metalimnion:Paul Lake | 5.32181602 |
| ## Hypolimnion:Tuesday Lake-Metalimnion:Paul Lake | 5.65904843 |
| ## Epilimnion:Ward Lake-Metalimnion:Paul Lake | NA |
| ## Metalimnion:Ward Lake-Metalimnion:Paul Lake | 3.78227526 |
| ## PML:Ward Lake-Metalimnion:Paul Lake | 5.04671971 |
| ## Hypolimnion:Ward Lake-Metalimnion:Paul Lake | 2.62590142 |
| ## Epilimnion:West Long Lake-Metalimnion:Paul Lake | 3.20680861 |
| ## Metalimnion:West Long Lake-Metalimnion:Paul Lake | 2.51172142 |
| ## PML:West Long Lake-Metalimnion:Paul Lake | 3.32187644 |
| ## Hypolimnion:West Long Lake-Metalimnion:Paul Lake | 2.62584872 |

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| ## Hypolimnion:Paul Lake-PML:Paul Lake | 0.33615323 |
| ## Epilimnion:Peter Lake-PML:Paul Lake | 0.54420849 |
| ## Metalimnion:Peter Lake-PML:Paul Lake | 0.28776525 |
| ## PML:Peter Lake-PML:Paul Lake | 0.90279572 |
| ## Hypolimnion:Peter Lake-PML:Paul Lake | 1.11926904 |
| ## Epilimnion:Tuesday Lake-PML:Paul Lake | 3.78323420 |
| ## Metalimnion:Tuesday Lake-PML:Paul Lake | 4.50386544 |
| ## PML:Tuesday Lake-PML:Paul Lake | 5.04201328 |
| ## Hypolimnion:Tuesday Lake-PML:Paul Lake | 5.38128823 |
| ## Epilimnion:Ward Lake-PML:Paul Lake | NA |
| ## Metalimnion:Ward Lake-PML:Paul Lake | 3.51450885 |
| ## PML:Ward Lake-PML:Paul Lake | 4.77895329 |
| ## Hypolimnion:Ward Lake-PML:Paul Lake | 2.35840615 |
| ## Epilimnion:West Long Lake-PML:Paul Lake | 2.92553986 |
| ## Metalimnion:West Long Lake-PML:Paul Lake | 2.22855888 |
| ## PML:West Long Lake-PML:Paul Lake | 3.05164182 |
| ## Hypolimnion:West Long Lake-PML:Paul Lake | 2.34640730 |
| ## Epilimnion:Peter Lake-Hypolimnion:Paul Lake | -0.27024842 |
| ## Metalimnion:Peter Lake-Hypolimnion:Paul Lake | -0.52205533 |
| ## PML:Peter Lake-Hypolimnion:Paul Lake | 0.09105654 |
| ## Hypolimnion:Peter Lake-Hypolimnion:Paul Lake | 0.30832587 |
| ## Epilimnion:Tuesday Lake-Hypolimnion:Paul Lake | 2.96320530 |
| ## Metalimnion:Tuesday Lake-Hypolimnion:Paul Lake | 3.68907079 |
| ## PML:Tuesday Lake-Hypolimnion:Paul Lake | 4.22590733 |
| ## Hypolimnion:Tuesday Lake-Hypolimnion:Paul Lake | 4.56433203 |
| ## Epilimnion:Ward Lake-Hypolimnion:Paul Lake | NA |
| ## Metalimnion:Ward Lake-Hypolimnion:Paul Lake | 2.69333436 |
| ## PML:Ward Lake-Hypolimnion:Paul Lake | 3.95777880 |
| ## Hypolimnion:Ward Lake-Hypolimnion:Paul Lake | 1.53711605 |
| ## Epilimnion:West Long Lake-Hypolimnion:Paul Lake | 2.11004129 |
| ## Metalimnion:West Long Lake-Hypolimnion:Paul Lake | 1.41384121 |
| ## PML:West Long Lake-Hypolimnion:Paul Lake | 2.23151715 |
| ## Hypolimnion:West Long Lake-Hypolimnion:Paul Lake | 1.53015127 |
| ## Metalimnion:Peter Lake-Epilimnion:Peter Lake | -0.94905284 |
| ## PML:Peter Lake-Epilimnion:Peter Lake | -0.32695632 |
| ## Hypolimnion:Peter Lake-Epilimnion:Peter Lake | -0.11345992 |
| ## Epilimnion:Tuesday Lake-Epilimnion:Peter Lake | 2.58820532 |
| ## Metalimnion:Tuesday Lake-Epilimnion:Peter Lake | 3.28613574 |
| ## PML:Tuesday Lake-Epilimnion:Peter Lake | 3.82972874 |
| ## Hypolimnion:Tuesday Lake-Epilimnion:Peter Lake | 4.17262345 |
| ## Epilimnion:Ward Lake-Epilimnion:Peter Lake | NA |
| ## Metalimnion:Ward Lake-Epilimnion:Peter Lake | 2.32477033 |
| ## PML:Ward Lake-Epilimnion:Peter Lake | 3.58921478 |
| ## Hypolimnion:Ward Lake-Epilimnion:Peter Lake | 1.16920725 |
| ## Epilimnion:West Long Lake-Epilimnion:Peter Lake | 1.71071219 |

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| ## Metalimnion:West Long Lake-Epilimnion:Peter Lake | 1.01051478 |
| ## PML:West Long Lake-Epilimnion:Peter Lake | 1.85705115 |
| ## Hypolimnion:West Long Lake-Epilimnion:Peter Lake | 1.13475664 |
| ## PML:Peter Lake-Metalimnion:Peter Lake | 0.18926316 |
| ## Hypolimnion:Peter Lake-Metalimnion:Peter Lake | 0.40768988 |
| ## Epilimnion:Tuesday Lake-Metalimnion:Peter Lake | 3.05002493 |
| ## Metalimnion:Tuesday Lake-Metalimnion:Peter Lake | 3.78295389 |
| ## PML:Tuesday Lake-Metalimnion:Peter Lake | 4.31798529 |
| ## Hypolimnion:Tuesday Lake-Metalimnion:Peter Lake | 4.65525345 |
| ## Epilimnion:Ward Lake-Metalimnion:Peter Lake | NA |
| ## Metalimnion:Ward Lake-Metalimnion:Peter Lake | 2.77865111 |
| ## PML:Ward Lake-Metalimnion:Peter Lake | 4.04309556 |
| ## Hypolimnion:Ward Lake-Metalimnion:Peter Lake | 1.62228182 |
| ## Epilimnion:West Long Lake-Metalimnion:Peter Lake | 2.20295201 |
| ## Metalimnion:West Long Lake-Metalimnion:Peter Lake | 1.50783115 |
| ## PML:West Long Lake-Metalimnion:Peter Lake | 2.31821065 |
| ## Hypolimnion:West Long Lake-Metalimnion:Peter Lake | 1.62202434 |
| ## Hypolimnion:Peter Lake-PML:Peter Lake | -0.30102160 |
| ## Epilimnion:Tuesday Lake-PML:Peter Lake | 2.36393040 |
| ## Metalimnion:Tuesday Lake-PML:Peter Lake | 3.08398732 |
| ## PML:Tuesday Lake-PML:Peter Lake | 3.62227771 |
| ## Hypolimnion:Tuesday Lake-PML:Peter Lake | 3.96164560 |
| ## Epilimnion:Ward Lake-PML:Peter Lake | NA |
| ## Metalimnion:Ward Lake-PML:Peter Lake | 2.09533242 |
| ## PML:Ward Lake-PML:Peter Lake | 3.35977686 |
| ## Hypolimnion:Ward Lake-PML:Peter Lake | 0.93924260 |
| ## Epilimnion:West Long Lake-PML:Peter Lake | 1.50573813 |
| ## Metalimnion:West Long Lake-PML:Peter Lake | 0.80867243 |
| ## PML:West Long Lake-PML:Peter Lake | 1.63234865 |
| ## Hypolimnion:West Long Lake-PML:Peter Lake | 0.92668811 |
| ## Epilimnion:Tuesday Lake-Hypolimnion:Peter Lake | 2.17886827 |
| ## Metalimnion:Tuesday Lake-Hypolimnion:Peter Lake | 2.90451326 |
| ## PML:Tuesday Lake-Hypolimnion:Peter Lake | 3.44140549 |
| ## Hypolimnion:Tuesday Lake-Hypolimnion:Peter Lake | 3.77986613 |
| ## Epilimnion:Ward Lake-Hypolimnion:Peter Lake | NA |
| ## Metalimnion:Ward Lake-Hypolimnion:Peter Lake | 1.90904504 |
| ## PML:Ward Lake-Hypolimnion:Peter Lake | 3.17348948 |
| ## Hypolimnion:Ward Lake-Hypolimnion:Peter Lake | 0.75283154 |
| ## Epilimnion:West Long Lake-Hypolimnion:Peter Lake | 1.32551370 |
| ## Metalimnion:West Long Lake-Hypolimnion:Peter Lake | 0.62928041 |
| ## PML:West Long Lake-Hypolimnion:Peter Lake | 1.44718412 |
| ## Hypolimnion:West Long Lake-Hypolimnion:Peter Lake | 0.74565579 |
| ## Metalimnion:Tuesday Lake-Epilimnion:Tuesday Lake | -0.54794131 |
| ## PML:Tuesday Lake-Epilimnion:Tuesday Lake | 0.00935314 |
| ## Hypolimnion:Tuesday Lake-Epilimnion:Tuesday Lake | 0.36194936 |

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| ## Epilimnion:Ward Lake-Epilimnion:Tuesday Lake | NA |
| ## Metalimnion:Ward Lake-Epilimnion:Tuesday Lake | -1.42672169 |
| ## PML:Ward Lake-Epilimnion:Tuesday Lake | -0.16227725 |
| ## Hypolimnion:Ward Lake-Epilimnion:Tuesday Lake | -2.58037742 |
| ## Epilimnion:West Long Lake-Epilimnion:Tuesday Lake | -2.11619289 |
| ## Metalimnion:West Long Lake-Epilimnion:Tuesday Lake | -2.82432182 |
| ## PML:West Long Lake-Epilimnion:Tuesday Lake | -1.91103022 |
| ## Hypolimnion:West Long Lake-Epilimnion:Tuesday Lake | -2.68395506 |
| ## PML:Tuesday Lake-Metalimnion:Tuesday Lake | -0.15271760 |
| ## Hypolimnion:Tuesday Lake-Metalimnion:Tuesday Lake | 0.19066575 |
| ## Epilimnion:Ward Lake-Metalimnion:Tuesday Lake | NA |
| ## Metalimnion:Ward Lake-Metalimnion:Tuesday Lake | -1.65450819 |
| ## PML:Ward Lake-Metalimnion:Tuesday Lake | -0.39006375 |
| ## Hypolimnion:Ward Lake-Metalimnion:Tuesday Lake | -2.80999213 |
| ## Epilimnion:West Long Lake-Metalimnion:Tuesday Lake | -2.27207248 |
| ## Metalimnion:West Long Lake-Metalimnion:Tuesday Lake | -2.97269174 |
| ## PML:West Long Lake-Metalimnion:Tuesday Lake | -2.12293271 |
| ## Hypolimnion:West Long Lake-Metalimnion:Tuesday Lake | -2.84760473 |
| ## Hypolimnion:Tuesday Lake-PML:Tuesday Lake | -0.44496237 |
| ## Epilimnion:Ward Lake-PML:Tuesday Lake | NA |
| ## Metalimnion:Ward Lake-PML:Tuesday Lake | -2.27878173 |
| ## PML:Ward Lake-PML:Tuesday Lake | -1.01433729 |
| ## Hypolimnion:Ward Lake-PML:Tuesday Lake | -3.43392259 |
| ## Epilimnion:West Long Lake-PML:Tuesday Lake | -2.91109381 |
| ## Metalimnion:West Long Lake-PML:Tuesday Lake | -3.61342194 |
| ## PML:West Long Lake-PML:Tuesday Lake | -2.75024526 |
| ## Hypolimnion:West Long Lake-PML:Tuesday Lake | -3.48489623 |
| ## Epilimnion:Ward Lake-Hypolimnion:Tuesday Lake | NA |
| ## Metalimnion:Ward Lake-Hypolimnion:Tuesday Lake | -2.68403300 |
| ## PML:Ward Lake-Hypolimnion:Tuesday Lake | -1.41958856 |
| ## Hypolimnion:Ward Lake-Hypolimnion:Tuesday Lake | -3.83891678 |
| ## Epilimnion:West Long Lake-Hypolimnion:Tuesday Lake | -3.32695882 |
| ## Metalimnion:West Long Lake-Hypolimnion:Tuesday Lake | -4.03045623 |
| ## PML:West Long Lake-Hypolimnion:Tuesday Lake | -3.15775506 |
| ## Hypolimnion:West Long Lake-Hypolimnion:Tuesday Lake | -3.89956403 |
| ## Metalimnion:Ward Lake-Epilimnion:Ward Lake | NA |
| ## PML:Ward Lake-Epilimnion:Ward Lake | NA |
| ## Hypolimnion:Ward Lake-Epilimnion:Ward Lake | NA |
| ## Epilimnion:West Long Lake-Epilimnion:Ward Lake | NA |
| ## Metalimnion:West Long Lake-Epilimnion:Ward Lake | NA |
| ## PML:West Long Lake-Epilimnion:Ward Lake | NA |
| ## Hypolimnion:West Long Lake-Epilimnion:Ward Lake | NA |
| ## PML:Ward Lake-Metalimnion:Ward Lake | -0.08534806 |
| ## Hypolimnion:Ward Lake-Metalimnion:Ward Lake | -2.50283619 |
| ## Epilimnion:West Long Lake-Metalimnion:Ward Lake | -2.06042487 |

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| ## Metalimnion:West Long Lake-Metalimnion:Ward Lake | -2.77044057 |
| ## PML:West Long Lake-Metalimnion:Ward Lake | -1.83926408 |
| ## Hypolimnion:West Long Lake-Metalimnion:Ward Lake | -2.62617180 |
| ## Hypolimnion:Ward Lake-PML:Ward Lake | -3.76728064 |
| ## Epilimnion:West Long Lake-PML:Ward Lake | -3.32486931 |
| ## Metalimnion:West Long Lake-PML:Ward Lake | -4.03488502 |
| ## PML:West Long Lake-PML:Ward Lake | -3.10370853 |
| ## Hypolimnion:West Long Lake-PML:Ward Lake | -3.89061625 |
| ## Epilimnion:West Long Lake-Hypolimnion:Ward Lake | -0.92885908 |
| ## Metalimnion:West Long Lake-Hypolimnion:Ward Lake | -1.63906984 |
| ## PML:West Long Lake-Hypolimnion:Ward Lake | -0.70599934 |
| ## Hypolimnion:West Long Lake-Hypolimnion:Ward Lake | -1.49439639 |
| ## Metalimnion:West Long Lake-Epilimnion:West Long Lake | -1.44707327 |
| ## PML:West Long Lake-Epilimnion:West Long Lake | -0.59029590 |
| ## Hypolimnion:West Long Lake-Epilimnion:West Long Lake | -1.32017180 |
| ## PML:West Long Lake-Metalimnion:West Long Lake | 0.15709309 |
| ## Hypolimnion:West Long Lake-Metalimnion:West Long Lake | -0.56703039 |
| ## Hypolimnion:West Long Lake-PML:West Long Lake | -1.96813713 |
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| ## Metalimnion:Crampton Lake-Epilimnion:Crampton Lake | NA |
| ## PML:Crampton Lake-Epilimnion:Crampton Lake | NA |
| ## Hypolimnion:Crampton Lake-Epilimnion:Crampton Lake | NA |
| ## Epilimnion:East Long Lake-Epilimnion:Crampton Lake | NA |
| ## Metalimnion:East Long Lake-Epilimnion:Crampton Lake | NA |
| ## PML:East Long Lake-Epilimnion:Crampton Lake | NA |
| ## Hypolimnion:East Long Lake-Epilimnion:Crampton Lake | NA |
| ## Epilimnion:Hummingbird Lake-Epilimnion:Crampton Lake | NA |
| ## Metalimnion:Hummingbird Lake-Epilimnion:Crampton Lake | NA |
| ## PML:Hummingbird Lake-Epilimnion:Crampton Lake | NA |
| ## Hypolimnion:Hummingbird Lake-Epilimnion:Crampton Lake | NA |
| ## Epilimnion:Paul Lake-Epilimnion:Crampton Lake | NA |
| ## Metalimnion:Paul Lake-Epilimnion:Crampton Lake | NA |
| ## PML:Paul Lake-Epilimnion:Crampton Lake | NA |
| ## Hypolimnion:Paul Lake-Epilimnion:Crampton Lake | NA |
| ## Epilimnion:Peter Lake-Epilimnion:Crampton Lake | NA |
| ## Metalimnion:Peter Lake-Epilimnion:Crampton Lake | NA |
| ## PML:Peter Lake-Epilimnion:Crampton Lake | NA |
| ## Hypolimnion:Peter Lake-Epilimnion:Crampton Lake | NA |
| ## Epilimnion:Tuesday Lake-Epilimnion:Crampton Lake | NA |
| ## Metalimnion:Tuesday Lake-Epilimnion:Crampton Lake | NA |
| ## PML:Tuesday Lake-Epilimnion:Crampton Lake | NA |
| ## Hypolimnion:Tuesday Lake-Epilimnion:Crampton Lake | NA |
| ## Epilimnion:Ward Lake-Epilimnion:Crampton Lake | NA |
| ## Metalimnion:Ward Lake-Epilimnion:Crampton Lake | NA |
| ## PML:Ward Lake-Epilimnion:Crampton Lake | NA |

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| ## Hypolimnion:Ward Lake-Epilimnion:Crampton Lake | NA |
| ## Epilimnion:West Long Lake-Epilimnion:Crampton Lake | NA |
| ## Metalimnion:West Long Lake-Epilimnion:Crampton Lake | NA |
| ## PML:West Long Lake-Epilimnion:Crampton Lake | NA |
| ## Hypolimnion:West Long Lake-Epilimnion:Crampton Lake | NA |
| ## PML:Crampton Lake-Metalimnion:Crampton Lake | 1.483093274 |
| ## Hypolimnion:Crampton Lake-Metalimnion:Crampton Lake | 1.140881167 |
| ## Epilimnion:East Long Lake-Metalimnion:Crampton Lake | 9.364595735 |
| ## Metalimnion:East Long Lake-Metalimnion:Crampton Lake | 9.470356964 |
| ## PML:East Long Lake-Metalimnion:Crampton Lake | 7.882016214 |
| ## Hypolimnion:East Long Lake-Metalimnion:Crampton Lake | 10.837804477 |
| ## Epilimnion:Hummingbird Lake-Metalimnion:Crampton Lake | NA |
| ## Metalimnion:Hummingbird Lake-Metalimnion:Crampton Lake | 19.424195378 |
| ## PML:Hummingbird Lake-Metalimnion:Crampton Lake | 19.004703385 |
| ## Hypolimnion:Hummingbird Lake-Metalimnion:Crampton Lake | 18.084195378 |
| ## Epilimnion:Paul Lake-Metalimnion:Crampton Lake | 2.269860731 |
| ## Metalimnion:Paul Lake-Metalimnion:Crampton Lake | 1.207423386 |
| ## PML:Paul Lake-Metalimnion:Crampton Lake | 1.477196088 |
| ## Hypolimnion:Paul Lake-Metalimnion:Crampton Lake | 2.297516870 |
| ## Epilimnion:Peter Lake-Metalimnion:Crampton Lake | 2.670887055 |
| ## Metalimnion:Peter Lake-Metalimnion:Crampton Lake | 2.211081358 |
| ## PML:Peter Lake-Metalimnion:Crampton Lake | 2.896467484 |
| ## Hypolimnion:Peter Lake-Metalimnion:Crampton Lake | 3.081841725 |
| ## Epilimnion:Tuesday Lake-Metalimnion:Crampton Lake | 6.435968312 |
| ## Metalimnion:Tuesday Lake-Metalimnion:Crampton Lake | 6.650741021 |
| ## PML:Tuesday Lake-Metalimnion:Crampton Lake | 7.277496425 |
| ## Hypolimnion:Tuesday Lake-Metalimnion:Crampton Lake | 7.684594731 |
| ## Epilimnion:Ward Lake-Metalimnion:Crampton Lake | NA |
| ## Metalimnion:Ward Lake-Metalimnion:Crampton Lake | 6.363289783 |
| ## PML:Ward Lake-Metalimnion:Crampton Lake | 7.627734227 |
| ## Hypolimnion:Ward Lake-Metalimnion:Crampton Lake | 5.229925818 |
| ## Epilimnion:West Long Lake-Metalimnion:Crampton Lake | 5.117816074 |
| ## Metalimnion:West Long Lake-Metalimnion:Crampton Lake | 4.370745287 |
| ## PML:West Long Lake-Metalimnion:Crampton Lake | 5.718962839 |
| ## Hypolimnion:West Long Lake-Metalimnion:Crampton Lake | 4.593204483 |
| ## Hypolimnion:Crampton Lake-PML:Crampton Lake | 0.852111034 |
| ## Epilimnion:East Long Lake-PML:Crampton Lake | 9.072945125 |
| ## Metalimnion:East Long Lake-PML:Crampton Lake | 9.178597441 |
| ## PML:East Long Lake-PML:Crampton Lake | 7.594167916 |
| ## Hypolimnion:East Long Lake-PML:Crampton Lake | 10.546805446 |
| ## Epilimnion:Hummingbird Lake-PML:Crampton Lake | NA |
| ## Metalimnion:Hummingbird Lake-PML:Crampton Lake | 19.137816141 |
| ## PML:Hummingbird Lake-PML:Crampton Lake | 18.717714702 |
| ## Hypolimnion:Hummingbird Lake-PML:Crampton Lake | 17.797816141 |
| ## Epilimnion:Paul Lake-PML:Crampton Lake | 1.977805862 |

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| ## Metalimnion:Paul Lake-PML:Crampton Lake | 0.913993123 |
| ## PML:Paul Lake-PML:Crampton Lake | 1.184227746 |
| ## Hypolimnion:Paul Lake-PML:Crampton Lake | 2.004352414 |
| ## Epilimnion:Peter Lake-PML:Crampton Lake | 2.378818417 |
| ## Metalimnion:Peter Lake-PML:Crampton Lake | 1.917658911 |
| ## PML:Peter Lake-PML:Crampton Lake | 2.603520917 |
| ## Hypolimnion:Peter Lake-PML:Crampton Lake | 2.788685445 |
| ## Epilimnion:Tuesday Lake-PML:Crampton Lake | 6.146899783 |
| ## Metalimnion:Tuesday Lake-PML:Crampton Lake | 6.358802274 |
| ## PML:Tuesday Lake-PML:Crampton Lake | 6.986114828 |
| ## Hypolimnion:Tuesday Lake-PML:Crampton Lake | 7.393624629 |
| ## Epilimnion:Ward Lake-PML:Crampton Lake | NA |
| ## Metalimnion:Ward Lake-PML:Crampton Lake | 6.075133650 |
| ## PML:Ward Lake-PML:Crampton Lake | 7.339578095 |
| ## Hypolimnion:Ward Lake-PML:Crampton Lake | 4.941868903 |
| ## Epilimnion:West Long Lake-PML:Crampton Lake | 4.826165464 |
| ## Metalimnion:West Long Lake-PML:Crampton Lake | 4.078776474 |
| ## PML:West Long Lake-PML:Crampton Lake | 5.429965845 |
| ## Hypolimnion:West Long Lake-PML:Crampton Lake | 4.301892458 |
| ## Epilimnion:East Long Lake-Hypolimnion:Crampton Lake | 9.460257432 |
| ## Metalimnion:East Long Lake-Hypolimnion:Crampton Lake | 9.566074805 |
| ## PML:East Long Lake-Hypolimnion:Crampton Lake | 7.975701828 |
| ## Hypolimnion:East Long Lake-Hypolimnion:Crampton Lake | 10.933129731 |
| ## Epilimnion:Hummingbird Lake-Hypolimnion:Crampton Lake | NA |
| ## Metalimnion:Hummingbird Lake-Hypolimnion:Crampton Lake | 19.517110070 |
| ## PML:Hummingbird Lake-Hypolimnion:Crampton Lake | 19.097938345 |
| ## Hypolimnion:Hummingbird Lake-Hypolimnion:Crampton Lake | 18.177110070 |
| ## Epilimnion:Paul Lake-Hypolimnion:Crampton Lake | 2.365730674 |
| ## Metalimnion:Paul Lake-Hypolimnion:Crampton Lake | 1.303998881 |
| ## PML:Paul Lake-Hypolimnion:Crampton Lake | 1.573535148 |
| ## Hypolimnion:Paul Lake-Hypolimnion:Crampton Lake | 2.393956377 |
| ## Epilimnion:Peter Lake-Hypolimnion:Crampton Lake | 2.766764086 |
| ## Metalimnion:Peter Lake-Hypolimnion:Crampton Lake | 2.307652856 |
| ## PML:Peter Lake-Hypolimnion:Crampton Lake | 2.992795385 |
| ## Hypolimnion:Peter Lake-Hypolimnion:Crampton Lake | 3.178277045 |
| ## Epilimnion:Tuesday Lake-Hypolimnion:Crampton Lake | 6.530291306 |
| ## Metalimnion:Tuesday Lake-Hypolimnion:Crampton Lake | 6.746551186 |
| ## PML:Tuesday Lake-Hypolimnion:Crampton Lake | 7.373019335 |
| ## Hypolimnion:Tuesday Lake-Hypolimnion:Crampton Lake | 7.779905025 |
| ## Epilimnion:Ward Lake-Hypolimnion:Crampton Lake | NA |
| ## Metalimnion:Ward Lake-Hypolimnion:Crampton Lake | 6.457136457 |
| ## PML:Ward Lake-Hypolimnion:Crampton Lake | 7.721580902 |
| ## Hypolimnion:Ward Lake-Hypolimnion:Crampton Lake | 5.323720600 |
| ## Epilimnion:West Long Lake-Hypolimnion:Crampton Lake | 5.213477771 |
| ## Metalimnion:West Long Lake-Hypolimnion:Crampton Lake | 4.466570933 |

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| ## PML:West Long Lake-Hypolimnion:Crampton Lake | 5.813248546 |
| ## Hypolimnion:West Long Lake-Hypolimnion:Crampton Lake | 4.688691472 |
| ## Metalimnion:East Long Lake-Epilimnion:East Long Lake | 0.848907140 |
| ## PML:East Long Lake-Epilimnion:East Long Lake | -0.662073537 |
| ## Hypolimnion:East Long Lake-Epilimnion:East Long Lake | 2.232780159 |
| ## Epilimnion:Hummingbird Lake-Epilimnion:East Long Lake | NA |
| ## Metalimnion:Hummingbird Lake-Epilimnion:East Long Lake | 10.905719650 |
| ## PML:Hummingbird Lake-Epilimnion:East Long Lake | 10.475769357 |
| ## Hypolimnion:Hummingbird Lake-Epilimnion:East Long Lake | 9.565719650 |
| ## Epilimnion:Paul Lake-Epilimnion:East Long Lake | -6.358206152 |
| ## Metalimnion:Paul Lake-Epilimnion:East Long Lake | -7.453588269 |
| ## PML:Paul Lake-Epilimnion:East Long Lake | -7.172319517 |
| ## Hypolimnion:Paul Lake-Epilimnion:East Long Lake | -6.356820951 |
| ## Epilimnion:Peter Lake-Epilimnion:East Long Lake | -5.957491850 |
| ## Metalimnion:Peter Lake-Epilimnion:East Long Lake | -6.449731676 |
| ## PML:Peter Lake-Epilimnion:East Long Lake | -5.752517796 |
| ## Hypolimnion:Peter Lake-Epilimnion:East Long Lake | -5.572293360 |
| ## Epilimnion:Tuesday Lake-Epilimnion:East Long Lake | -2.130586775 |
| ## Metalimnion:Tuesday Lake-Epilimnion:East Long Lake | -1.974707182 |
| ## PML:Tuesday Lake-Epilimnion:East Long Lake | -1.335685846 |
| ## Hypolimnion:Tuesday Lake-Epilimnion:East Long Lake | -0.919820841 |
| ## Epilimnion:Ward Lake-Epilimnion:East Long Lake | NA |
| ## Metalimnion:Ward Lake-Epilimnion:East Long Lake | -2.186354794 |
| ## PML:Ward Lake-Epilimnion:East Long Lake | -0.921910349 |
| ## Hypolimnion:Ward Lake-Epilimnion:East Long Lake | -3.317920585 |
| ## Epilimnion:West Long Lake-Epilimnion:East Long Lake | -3.501228832 |
| ## Metalimnion:West Long Lake-Epilimnion:East Long Lake | -4.255378786 |
| ## PML:West Long Lake-Epilimnion:East Long Lake | -2.846240578 |
| ## Hypolimnion:West Long Lake-Epilimnion:East Long Lake | -4.018478915 |
| ## PML:East Long Lake-Metalimnion:East Long Lake | -0.780482200 |
| ## Hypolimnion:East Long Lake-Metalimnion:East Long Lake | 2.111915694 |
| ## Epilimnion:Hummingbird Lake-Metalimnion:East Long Lake | NA |
| ## Metalimnion:Hummingbird Lake-Metalimnion:East Long Lake | 10.788223688 |
| ## PML:Hummingbird Lake-Metalimnion:East Long Lake | 10.357907577 |
| ## Hypolimnion:Hummingbird Lake-Metalimnion:East Long Lake | 9.448223688 |
| ## Epilimnion:Paul Lake-Metalimnion:East Long Lake | -6.480140673 |
| ## Metalimnion:Paul Lake-Metalimnion:East Long Lake | -7.577239329 |
| ## PML:Paul Lake-Metalimnion:East Long Lake | -7.295343260 |
| ## Hypolimnion:Paul Lake-Metalimnion:East Long Lake | -6.480103840 |
| ## Epilimnion:Peter Lake-Metalimnion:East Long Lake | -6.079441530 |
| ## Metalimnion:Peter Lake-Metalimnion:East Long Lake | -6.573371613 |
| ## PML:Peter Lake-Metalimnion:East Long Lake | -5.875513379 |
| ## Hypolimnion:Peter Lake-Metalimnion:East Long Lake | -5.695565240 |
| ## Epilimnion:Tuesday Lake-Metalimnion:East Long Lake | -2.249847888 |
| ## Metalimnion:Tuesday Lake-Metalimnion:East Long Lake | -2.096515235 |

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| ## PML:Tuesday Lake-Metalimnion:East Long Lake | -1.456918496 |
| ## Hypolimnion:Tuesday Lake-Metalimnion:East Long Lake | -1.040658270 |
| ## Epilimnion:Ward Lake-Metalimnion:East Long Lake | NA |
| ## Metalimnion:Ward Lake-Metalimnion:East Long Lake | -2.304969320 |
| ## PML:Ward Lake-Metalimnion:East Long Lake | -1.040524875 |
| ## Hypolimnion:Ward Lake-Metalimnion:East Long Lake | -3.436468134 |
| ## Epilimnion:West Long Lake-Metalimnion:East Long Lake | -3.622733101 |
| ## Metalimnion:West Long Lake-Metalimnion:East Long Lake | -4.377219353 |
| ## PML:West Long Lake-Metalimnion:East Long Lake | -2.965448843 |
| ## Hypolimnion:West Long Lake-Metalimnion:East Long Lake | -4.139643082 |
| ## Hypolimnion:East Long Lake-PML:East Long Lake | 4.386518036 |
| ## Epilimnion:Hummingbird Lake-PML:East Long Lake | NA |
| ## Metalimnion:Hummingbird Lake-PML:East Long Lake | 12.941824114 |
| ## PML:Hummingbird Lake-PML:East Long Lake | 12.526580247 |
| ## Hypolimnion:Hummingbird Lake-PML:East Long Lake | 11.601824114 |
| ## Epilimnion:Paul Lake-PML:East Long Lake | -4.174704933 |
| ## Metalimnion:Paul Lake-PML:East Long Lake | -5.228613899 |
| ## PML:Paul Lake-PML:East Long Lake | -4.961676562 |
| ## Hypolimnion:Paul Lake-PML:East Long Lake | -4.140148411 |
| ## Epilimnion:Peter Lake-PML:East Long Lake | -3.773591950 |
| ## Metalimnion:Peter Lake-PML:East Long Lake | -4.225003665 |
| ## PML:Peter Lake-PML:East Long Lake | -3.542539550 |
| ## Hypolimnion:Peter Lake-PML:East Long Lake | -3.355873790 |
| ## Epilimnion:Tuesday Lake-PML:East Long Lake | -0.027985729 |
| ## Metalimnion:Tuesday Lake-PML:East Long Lake | 0.205443535 |
| ## PML:Tuesday Lake-PML:East Long Lake | 0.828662399 |
| ## Hypolimnion:Tuesday Lake-PML:East Long Lake | 1.233122048 |
| ## Epilimnion:Ward Lake-PML:East Long Lake | NA |
| ## Metalimnion:Ward Lake-PML:East Long Lake | -0.106815741 |
| ## PML:Ward Lake-PML:East Long Lake | 1.157628703 |
| ## Hypolimnion:Ward Lake-PML:East Long Lake | -1.240854793 |
| ## Epilimnion:West Long Lake-PML:East Long Lake | -1.329305175 |
| ## Metalimnion:West Long Lake-PML:East Long Lake | -2.074362542 |
| ## PML:West Long Lake-PML:East Long Lake | -0.745469766 |
| ## Hypolimnion:West Long Lake-PML:East Long Lake | -1.856074084 |
| ## Epilimnion:Hummingbird Lake-Hypolimnion:East Long Lake | NA |
| ## Metalimnion:Hummingbird Lake-Hypolimnion:East Long Lake | 9.506503015 |
| ## PML:Hummingbird Lake-Hypolimnion:East Long Lake | 9.078802209 |
| ## Hypolimnion:Hummingbird Lake-Hypolimnion:East Long Lake | 8.166503015 |
| ## Epilimnion:Paul Lake-Hypolimnion:East Long Lake | -7.731229537 |
| ## Metalimnion:Paul Lake-Hypolimnion:East Long Lake | -8.817236678 |
| ## PML:Paul Lake-Hypolimnion:East Long Lake | -8.539339945 |
| ## Hypolimnion:Paul Lake-Hypolimnion:East Long Lake | -7.722440721 |
| ## Epilimnion:Peter Lake-Hypolimnion:East Long Lake | -7.330430437 |
| ## Metalimnion:Peter Lake-Hypolimnion:East Long Lake | -7.813439318 |

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| ## PML:Peter Lake-Hypolimnion:East Long Lake | -7.119691073 |
| ## Hypolimnion:Peter Lake-Hypolimnion:East Long Lake | -6.937972413 |
| ## Epilimnion:Tuesday Lake-Hypolimnion:East Long Lake | -3.519085018 |
| ## Metalimnion:Tuesday Lake-Hypolimnion:East Long Lake | -3.348439441 |
| ## PML:Tuesday Lake-Hypolimnion:East Long Lake | -2.712673626 |
| ## Hypolimnion:Tuesday Lake-Hypolimnion:East Long Lake | -2.299072876 |
| ## Epilimnion:Ward Lake-Hypolimnion:East Long Lake | NA |
| ## Metalimnion:Ward Lake-Hypolimnion:East Long Lake | -3.578738127 |
| ## PML:Ward Lake-Hypolimnion:East Long Lake | -2.314293682 |
| ## Hypolimnion:Ward Lake-Hypolimnion:East Long Lake | -4.710709189 |
| ## Epilimnion:West Long Lake-Hypolimnion:East Long Lake | -4.876673701 |
| ## Metalimnion:West Long Lake-Hypolimnion:East Long Lake | -5.628928566 |
| ## PML:West Long Lake-Hypolimnion:East Long Lake | -4.235054458 |
| ## Hypolimnion:West Long Lake-Hypolimnion:East Long Lake | -5.395857416 |
| ## Metalimnion:Hummingbird Lake-Epilimnion:Hummingbird Lake | NA |
| ## PML:Hummingbird Lake-Epilimnion:Hummingbird Lake | NA |
| ## Hypolimnion:Hummingbird Lake-Epilimnion:Hummingbird Lake | NA |
| ## Epilimnion:Paul Lake-Epilimnion:Hummingbird Lake | NA |
| ## Metalimnion:Paul Lake-Epilimnion:Hummingbird Lake | NA |
| ## PML:Paul Lake-Epilimnion:Hummingbird Lake | NA |
| ## Hypolimnion:Paul Lake-Epilimnion:Hummingbird Lake | NA |
| ## Epilimnion:Peter Lake-Epilimnion:Hummingbird Lake | NA |
| ## Metalimnion:Peter Lake-Epilimnion:Hummingbird Lake | NA |
| ## PML:Peter Lake-Epilimnion:Hummingbird Lake | NA |
| ## Hypolimnion:Peter Lake-Epilimnion:Hummingbird Lake | NA |
| ## Epilimnion:Tuesday Lake-Epilimnion:Hummingbird Lake | NA |
| ## Metalimnion:Tuesday Lake-Epilimnion:Hummingbird Lake | NA |
| ## PML:Tuesday Lake-Epilimnion:Hummingbird Lake | NA |
| ## Hypolimnion:Tuesday Lake-Epilimnion:Hummingbird Lake | NA |
| ## Epilimnion:Ward Lake-Epilimnion:Hummingbird Lake | NA |
| ## Metalimnion:Ward Lake-Epilimnion:Hummingbird Lake | NA |
| ## PML:Ward Lake-Epilimnion:Hummingbird Lake | NA |
| ## Hypolimnion:Ward Lake-Epilimnion:Hummingbird Lake | NA |
| ## Epilimnion:West Long Lake-Epilimnion:Hummingbird Lake | NA |
| ## Metalimnion:West Long Lake-Epilimnion:Hummingbird Lake | NA |
| ## PML:West Long Lake-Epilimnion:Hummingbird Lake | NA |
| ## Hypolimnion:West Long Lake-Epilimnion:Hummingbird Lake | NA |
| ## PML:Hummingbird Lake-Metalimnion:Hummingbird Lake | 1.318187355 |
| ## Hypolimnion:Hummingbird Lake-Metalimnion:Hummingbird Lake | 0.386660367 |
| ## Epilimnion:Paul Lake-Metalimnion:Hummingbird Lake | -15.334766046 |
| ## Metalimnion:Paul Lake-Metalimnion:Hummingbird Lake | -16.377848067 |
| ## PML:Paul Lake-Metalimnion:Hummingbird Lake | -16.114446038 |
| ## Hypolimnion:Paul Lake-Metalimnion:Hummingbird Lake | -15.291404688 |
| ## Epilimnion:Peter Lake-Metalimnion:Hummingbird Lake | -14.933540123 |
| ## Metalimnion:Peter Lake-Metalimnion:Hummingbird Lake | -15.374296828 |

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| ## PML:Peter Lake-Metalimnion:Hummingbird Lake | -14.695478166 |
| ## Hypolimnion:Peter Lake-Metalimnion:Hummingbird Lake | -14.507192795 |
| ## Epilimnion:Tuesday Lake-Metalimnion:Hummingbird Lake | -11.214849192 |
| ## Metalimnion:Tuesday Lake-Metalimnion:Hummingbird Lake | -10.955573747 |
| ## PML:Tuesday Lake-Metalimnion:Hummingbird Lake | -10.337036522 |
| ## Hypolimnion:Tuesday Lake-Metalimnion:Hummingbird Lake | -9.936135933 |
| ## Epilimnion:Ward Lake-Metalimnion:Hummingbird Lake | NA |
| ## Metalimnion:Ward Lake-Metalimnion:Hummingbird Lake | -11.302825398 |
| ## PML:Ward Lake-Metalimnion:Hummingbird Lake | -10.038380953 |
| ## Hypolimnion:Ward Lake-Metalimnion:Hummingbird Lake | -12.437887010 |
| ## Epilimnion:West Long Lake-Metalimnion:Hummingbird Lake | -12.492724109 |
| ## Metalimnion:West Long Lake-Metalimnion:Hummingbird Lake | -13.235131612 |
| ## PML:West Long Lake-Metalimnion:Hummingbird Lake | -11.933033661 |
| ## Hypolimnion:West Long Lake-Metalimnion:Hummingbird Lake | -13.022368646 |
| ## Hypolimnion:Hummingbird Lake-PML:Hummingbird Lake | 0.659655887 |
| ## Epilimnion:Paul Lake-PML:Hummingbird Lake | -15.084591221 |
| ## Metalimnion:Paul Lake-PML:Hummingbird Lake | -16.131958662 |
| ## PML:Paul Lake-PML:Hummingbird Lake | -15.867165207 |
| ## Hypolimnion:Paul Lake-PML:Hummingbird Lake | -15.044720370 |
| ## Epilimnion:Peter Lake-PML:Hummingbird Lake | -14.683410367 |
| ## Metalimnion:Peter Lake-PML:Hummingbird Lake | -15.128384267 |
| ## PML:Peter Lake-PML:Hummingbird Lake | -14.448130572 |
| ## Hypolimnion:Peter Lake-PML:Hummingbird Lake | -14.260483777 |
| ## Epilimnion:Tuesday Lake-PML:Hummingbird Lake | -10.953772281 |
| ## Metalimnion:Tuesday Lake-PML:Hummingbird Lake | -10.705017053 |
| ## PML:Tuesday Lake-PML:Hummingbird Lake | -10.084602316 |
| ## Hypolimnion:Tuesday Lake-PML:Hummingbird Lake | -9.682265872 |
| ## Epilimnion:Ward Lake-PML:Hummingbird Lake | NA |
| ## Metalimnion:Ward Lake-PML:Hummingbird Lake | -11.037939437 |
| ## PML:Ward Lake-PML:Hummingbird Lake | -9.773494992 |
| ## Hypolimnion:Ward Lake-PML:Hummingbird Lake | -12.172572559 |
| ## Epilimnion:West Long Lake-PML:Hummingbird Lake | -12.241205871 |
| ## Metalimnion:West Long Lake-PML:Hummingbird Lake | -12.984674100 |
| ## PML:West Long Lake-PML:Hummingbird Lake | -11.671666569 |
| ## Hypolimnion:West Long Lake-PML:Hummingbird Lake | -12.769694646 |
| ## Epilimnion:Paul Lake-Hypolimnion:Hummingbird Lake | -13.994766046 |
| ## Metalimnion:Paul Lake-Hypolimnion:Hummingbird Lake | -15.037848067 |
| ## PML:Paul Lake-Hypolimnion:Hummingbird Lake | -14.774446038 |
| ## Hypolimnion:Paul Lake-Hypolimnion:Hummingbird Lake | -13.951404688 |
| ## Epilimnion:Peter Lake-Hypolimnion:Hummingbird Lake | -13.593540123 |
| ## Metalimnion:Peter Lake-Hypolimnion:Hummingbird Lake | -14.034296828 |
| ## PML:Peter Lake-Hypolimnion:Hummingbird Lake | -13.355478166 |
| ## Hypolimnion:Peter Lake-Hypolimnion:Hummingbird Lake | -13.167192795 |
| ## Epilimnion:Tuesday Lake-Hypolimnion:Hummingbird Lake | -9.874849192 |
| ## Metalimnion:Tuesday Lake-Hypolimnion:Hummingbird Lake | -9.615573747 |

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| ## PML:Tuesday Lake-Hypolimnion:Hummingbird Lake | -8.997036522 |
| ## Hypolimnion:Tuesday Lake-Hypolimnion:Hummingbird Lake | -8.596135933 |
| ## Epilimnion:Ward Lake-Hypolimnion:Hummingbird Lake | NA |
| ## Metalimnion:Ward Lake-Hypolimnion:Hummingbird Lake | -9.962825398 |
| ## PML:Ward Lake-Hypolimnion:Hummingbird Lake | -8.698380953 |
| ## Hypolimnion:Ward Lake-Hypolimnion:Hummingbird Lake | -11.097887010 |
| ## Epilimnion:West Long Lake-Hypolimnion:Hummingbird Lake | -11.152724109 |
| ## Metalimnion:West Long Lake-Hypolimnion:Hummingbird Lake | -11.895131612 |
| ## PML:West Long Lake-Hypolimnion:Hummingbird Lake | -10.593033661 |
| ## Hypolimnion:West Long Lake-Hypolimnion:Hummingbird Lake | -11.682368646 |
| ## Metalimnion:Paul Lake-Epilimnion:Paul Lake | -0.424757028 |
| ## PML:Paul Lake-Epilimnion:Paul Lake | -0.141048531 |
| ## Hypolimnion:Paul Lake-Epilimnion:Paul Lake | 0.673444829 |
| ## Epilimnion:Peter Lake-Epilimnion:Paul Lake | 1.077908345 |
| ## Metalimnion:Peter Lake-Epilimnion:Paul Lake | 0.579143016 |
| ## PML:Peter Lake-Epilimnion:Paul Lake | 1.278862201 |
| ## Hypolimnion:Peter Lake-Epilimnion:Paul Lake | 1.458015197 |
| ## Epilimnion:Tuesday Lake-Epilimnion:Paul Lake | 4.914931055 |
| ## Metalimnion:Tuesday Lake-Epilimnion:Paul Lake | 5.061233325 |
| ## PML:Tuesday Lake-Epilimnion:Paul Lake | 5.702440653 |
| ## Hypolimnion:Tuesday Lake-Epilimnion:Paul Lake | 6.119799001 |
| ## Epilimnion:Ward Lake-Epilimnion:Paul Lake | NA |
| ## Metalimnion:Ward Lake-Epilimnion:Paul Lake | 4.861558869 |
| ## PML:Ward Lake-Epilimnion:Paul Lake | 6.126003314 |
| ## Hypolimnion:Ward Lake-Epilimnion:Paul Lake | 3.730240564 |
| ## Epilimnion:West Long Lake-Epilimnion:Paul Lake | 3.535867571 |
| ## Metalimnion:West Long Lake-Epilimnion:Paul Lake | 2.780437759 |
| ## PML:West Long Lake-Epilimnion:Paul Lake | 4.199473542 |
| ## Hypolimnion:West Long Lake-Epilimnion:Paul Lake | 3.019906806 |
| ## PML:Paul Lake-Metalimnion:Paul Lake | 0.714742366 |
| ## Hypolimnion:Paul Lake-Metalimnion:Paul Lake | 1.524527814 |
| ## Epilimnion:Peter Lake-Metalimnion:Paul Lake | 1.951686354 |
| ## Metalimnion:Peter Lake-Metalimnion:Paul Lake | 1.423454364 |
| ## PML:Peter Lake-Metalimnion:Paul Lake | 2.135155004 |
| ## Hypolimnion:Peter Lake-Metalimnion:Paul Lake | 2.309301559 |
| ## Epilimnion:Tuesday Lake-Metalimnion:Paul Lake | 5.826473377 |
| ## Metalimnion:Tuesday Lake-Metalimnion:Paul Lake | 5.937227425 |
| ## PML:Tuesday Lake-Metalimnion:Paul Lake | 6.587129524 |
| ## Hypolimnion:Tuesday Lake-Metalimnion:Paul Lake | 7.010202352 |
| ## Epilimnion:Ward Lake-Metalimnion:Paul Lake | NA |
| ## Metalimnion:Ward Lake-Metalimnion:Paul Lake | 5.781166882 |
| ## PML:Ward Lake-Metalimnion:Paul Lake | 7.045611326 |
| ## Hypolimnion:Ward Lake-Metalimnion:Paul Lake | 4.650667712 |
| ## Epilimnion:West Long Lake-Metalimnion:Paul Lake | 4.416511128 |
| ## Metalimnion:West Long Lake-Metalimnion:Paul Lake | 3.655925913 |

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| ## PML:West Long Lake-Metalimnion:Paul Lake | 5.111686477 |
| ## Hypolimnion:West Long Lake-Metalimnion:Paul Lake | 3.905599965 |
| ## Hypolimnion:Paul Lake-PML:Paul Lake | 1.324897484 |
| ## Epilimnion:Peter Lake-PML:Paul Lake | 1.743289744 |
| ## Metalimnion:Peter Lake-PML:Paul Lake | 1.226575987 |
| ## PML:Peter Lake-PML:Paul Lake | 1.933452385 |
| ## Hypolimnion:Peter Lake-PML:Paul Lake | 2.109589615 |
| ## Epilimnion:Tuesday Lake-PML:Paul Lake | 5.604739802 |
| ## Metalimnion:Tuesday Lake-PML:Paul Lake | 5.728008892 |
| ## PML:Tuesday Lake-PML:Paul Lake | 6.374738350 |
| ## Hypolimnion:Tuesday Lake-PML:Paul Lake | 6.795768629 |
| ## Epilimnion:Ward Lake-PML:Paul Lake | NA |
| ## Metalimnion:Ward Lake-PML:Paul Lake | 5.556739382 |
| ## PML:Ward Lake-PML:Paul Lake | 6.821183826 |
| ## Hypolimnion:Ward Lake-PML:Paul Lake | 4.425969063 |
| ## Epilimnion:West Long Lake-PML:Paul Lake | 4.205585965 |
| ## Metalimnion:West Long Lake-PML:Paul Lake | 3.446894538 |
| ## PML:West Long Lake-PML:Paul Lake | 4.889727185 |
| ## Hypolimnion:West Long Lake-PML:Paul Lake | 3.692847465 |
| ## Epilimnion:Peter Lake-Hypolimnion:Paul Lake | 0.896695933 |
| ## Metalimnion:Peter Lake-Hypolimnion:Paul Lake | 0.375345846 |
| ## PML:Peter Lake-Hypolimnion:Paul Lake | 1.084140843 |
| ## Hypolimnion:Peter Lake-Hypolimnion:Paul Lake | 1.259482065 |
| ## Epilimnion:Tuesday Lake-Hypolimnion:Paul Lake | 4.763717983 |
| ## Metalimnion:Tuesday Lake-Hypolimnion:Paul Lake | 4.881752828 |
| ## PML:Tuesday Lake-Hypolimnion:Paul Lake | 5.529793585 |
| ## Hypolimnion:Tuesday Lake-Hypolimnion:Paul Lake | 5.951674113 |
| ## Epilimnion:Ward Lake-Hypolimnion:Paul Lake | NA |
| ## Metalimnion:Ward Lake-Hypolimnion:Paul Lake | 4.716863157 |
| ## PML:Ward Lake-Hypolimnion:Paul Lake | 5.981307602 |
| ## Hypolimnion:Ward Lake-Hypolimnion:Paul Lake | 3.586208448 |
| ## Epilimnion:West Long Lake-Hypolimnion:Paul Lake | 3.360033812 |
| ## Metalimnion:West Long Lake-Hypolimnion:Paul Lake | 2.600561493 |
| ## PML:West Long Lake-Hypolimnion:Paul Lake | 4.048801134 |
| ## Hypolimnion:West Long Lake-Hypolimnion:Paul Lake | 2.848052776 |
| ## Metalimnion:Peter Lake-Epilimnion:Peter Lake | 0.175895843 |
| ## PML:Peter Lake-Epilimnion:Peter Lake | 0.875706188 |
| ## Hypolimnion:Peter Lake-Epilimnion:Peter Lake | 1.054820344 |
| ## Epilimnion:Tuesday Lake-Epilimnion:Peter Lake | 4.512270446 |
| ## Metalimnion:Tuesday Lake-Epilimnion:Peter Lake | 4.658240367 |
| ## PML:Tuesday Lake-Epilimnion:Peter Lake | 5.299524659 |
| ## Hypolimnion:Tuesday Lake-Epilimnion:Peter Lake | 5.716935181 |
| ## Epilimnion:Ward Lake-Epilimnion:Peter Lake | NA |
| ## Metalimnion:Ward Lake-Epilimnion:Peter Lake | 4.458979667 |
| ## PML:Ward Lake-Epilimnion:Peter Lake | 5.723424111 |

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| ## Hypolimnion:Ward Lake-Epilimnion:Peter Lake | 3.327669738 |
| ## Epilimnion:West Long Lake-Epilimnion:Peter Lake | 3.132915400 |
| ## Metalimnion:West Long Lake-Epilimnion:Peter Lake | 2.377440414 |
| ## PML:West Long Lake-Epilimnion:Peter Lake | 3.796819625 |
| ## Hypolimnion:West Long Lake-Epilimnion:Peter Lake | 2.616999892 |
| ## PML:Peter Lake-Metalimnion:Peter Lake | 1.132643701 |
| ## Hypolimnion:Peter Lake-Metalimnion:Peter Lake | 1.306827533 |
| ## Epilimnion:Tuesday Lake-Metalimnion:Peter Lake | 4.823607835 |
| ## Metalimnion:Tuesday Lake-Metalimnion:Peter Lake | 4.934579203 |
| ## PML:Tuesday Lake-Metalimnion:Peter Lake | 5.584425099 |
| ## Hypolimnion:Tuesday Lake-Metalimnion:Peter Lake | 6.007462179 |
| ## Epilimnion:Ward Lake-Metalimnion:Peter Lake | NA |
| ## Metalimnion:Ward Lake-Metalimnion:Peter Lake | 4.778255879 |
| ## PML:Ward Lake-Metalimnion:Peter Lake | 6.042700324 |
| ## Hypolimnion:Ward Lake-Metalimnion:Peter Lake | 3.647752154 |
| ## Epilimnion:West Long Lake-Metalimnion:Peter Lake | 3.413832567 |
| ## Metalimnion:West Long Lake-Metalimnion:Peter Lake | 2.653281034 |
| ## PML:West Long Lake-Metalimnion:Peter Lake | 4.108817111 |
| ## Hypolimnion:West Long Lake-Metalimnion:Peter Lake | 2.902889193 |
| ## Hypolimnion:Peter Lake-PML:Peter Lake | 0.693632151 |
| ## Epilimnion:Tuesday Lake-PML:Peter Lake | 4.187795500 |
| ## Metalimnion:Tuesday Lake-PML:Peter Lake | 4.311638911 |
| ## PML:Tuesday Lake-PML:Peter Lake | 4.958225819 |
| ## Hypolimnion:Tuesday Lake-PML:Peter Lake | 5.379163160 |
| ## Epilimnion:Ward Lake-PML:Peter Lake | NA |
| ## Metalimnion:Ward Lake-PML:Peter Lake | 4.139667711 |
| ## PML:Ward Lake-PML:Peter Lake | 5.404112156 |
| ## Hypolimnion:Ward Lake-PML:Peter Lake | 3.008884512 |
| ## Epilimnion:West Long Lake-PML:Peter Lake | 2.789139584 |
| ## Metalimnion:West Long Lake-PML:Peter Lake | 2.030532895 |
| ## PML:West Long Lake-PML:Peter Lake | 3.472772255 |
| ## Hypolimnion:West Long Lake-PML:Peter Lake | 2.276318558 |
| ## Epilimnion:Tuesday Lake-Hypolimnion:Peter Lake | 3.980247072 |
| ## Metalimnion:Tuesday Lake-Hypolimnion:Peter Lake | 4.098502416 |
| ## PML:Tuesday Lake-Hypolimnion:Peter Lake | 4.746487487 |
| ## Hypolimnion:Tuesday Lake-Hypolimnion:Peter Lake | 5.168332079 |
| ## Epilimnion:Ward Lake-Hypolimnion:Peter Lake | NA |
| ## Metalimnion:Ward Lake-Hypolimnion:Peter Lake | 3.933344537 |
| ## PML:Ward Lake-Hypolimnion:Peter Lake | 5.197788981 |
| ## Hypolimnion:Ward Lake-Hypolimnion:Peter Lake | 2.802685022 |
| ## Epilimnion:West Long Lake-Hypolimnion:Peter Lake | 2.576753465 |
| ## Metalimnion:West Long Lake-Hypolimnion:Peter Lake | 1.817314361 |
| ## PML:West Long Lake-Hypolimnion:Peter Lake | 3.265326228 |
| ## Hypolimnion:West Long Lake-Hypolimnion:Peter Lake | 2.064740326 |
| ## Metalimnion:Tuesday Lake-Epilimnion:Tuesday Lake | 1.391841646 |

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| ## PML:Tuesday Lake-Epilimnion:Tuesday Lake | 2.019424493 |
| ## Hypolimnion:Tuesday Lake-Epilimnion:Tuesday Lake | 2.427133501 |
| ## Epilimnion:Ward Lake-Epilimnion:Tuesday Lake | NA |
| ## Metalimnion:Ward Lake-Epilimnion:Tuesday Lake | 1.109995926 |
| ## PML:Ward Lake-Epilimnion:Tuesday Lake | 2.374440371 |
| ## Hypolimnion:Ward Lake-Epilimnion:Tuesday Lake | -0.023221360 |
| ## Epilimnion:West Long Lake-Epilimnion:Tuesday Lake | -0.140655293 |
| ## Metalimnion:West Long Lake-Epilimnion:Tuesday Lake | -0.888198758 |
| ## PML:West Long Lake-Epilimnion:Tuesday Lake | 0.464425223 |
| ## Hypolimnion:West Long Lake-Epilimnion:Tuesday Lake | -0.664764171 |
| ## PML:Tuesday Lake-Metalimnion:Tuesday Lake | 1.337594902 |
| ## Hypolimnion:Tuesday Lake-Metalimnion:Tuesday Lake | 1.754516780 |
| ## Epilimnion:Ward Lake-Metalimnion:Tuesday Lake | NA |
| ## Metalimnion:Ward Lake-Metalimnion:Tuesday Lake | 0.493882090 |
| ## PML:Ward Lake-Metalimnion:Tuesday Lake | 1.758326535 |
| ## Hypolimnion:Ward Lake-Metalimnion:Tuesday Lake | -0.637506993 |
| ## Epilimnion:West Long Lake-Metalimnion:Tuesday Lake | -0.828676034 |
| ## Metalimnion:West Long Lake-Metalimnion:Tuesday Lake | -1.583729170 |
| ## PML:West Long Lake-Metalimnion:Tuesday Lake | -0.167572621 |
| ## Hypolimnion:West Long Lake-Metalimnion:Tuesday Lake | -1.345014839 |
| ## Hypolimnion:Tuesday Lake-PML:Tuesday Lake | 1.205267602 |
| ## Epilimnion:Ward Lake-PML:Tuesday Lake | NA |
| ## Metalimnion:Ward Lake-PML:Tuesday Lake | -0.066721668 |
| ## PML:Ward Lake-PML:Tuesday Lake | 1.197722776 |
| ## Hypolimnion:Ward Lake-PML:Tuesday Lake | -1.198453829 |
| ## Epilimnion:West Long Lake-PML:Tuesday Lake | -1.374531997 |
| ## Metalimnion:West Long Lake-PML:Tuesday Lake | -2.127876269 |
| ## PML:West Long Lake-PML:Tuesday Lake | -0.725137366 |
| ## Hypolimnion:West Long Lake-PML:Tuesday Lake | -1.892600631 |
| ## Epilimnion:Ward Lake-Hypolimnion:Tuesday Lake | NA |
| ## Metalimnion:Ward Lake-Hypolimnion:Tuesday Lake | -0.421775632 |
| ## PML:Ward Lake-Hypolimnion:Tuesday Lake | 0.842668813 |
| ## Hypolimnion:Ward Lake-Hypolimnion:Tuesday Lake | -1.553764869 |
| ## Epilimnion:West Long Lake-Hypolimnion:Tuesday Lake | -1.718972223 |
| ## Metalimnion:West Long Lake-Hypolimnion:Tuesday Lake | -2.471147210 |
| ## PML:West Long Lake-Hypolimnion:Tuesday Lake | -1.077932795 |
| ## Hypolimnion:West Long Lake-Hypolimnion:Tuesday Lake | -2.238238065 |
| ## Metalimnion:Ward Lake-Epilimnion:Ward Lake | NA |
| ## PML:Ward Lake-Epilimnion:Ward Lake | NA |
| ## Hypolimnion:Ward Lake-Epilimnion:Ward Lake | NA |
| ## Epilimnion:West Long Lake-Epilimnion:Ward Lake | NA |
| ## Metalimnion:West Long Lake-Epilimnion:Ward Lake | NA |
| ## PML:West Long Lake-Epilimnion:Ward Lake | NA |
| ## Hypolimnion:West Long Lake-Epilimnion:Ward Lake | NA |
| ## PML:Ward Lake-Metalimnion:Ward Lake | 2.614236944 |

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| ## Hypolimnion:Ward Lake-Metalimnion:Ward Lake | 0.215963177 |
| ## Epilimnion:West Long Lake-Metalimnion:Ward Lake | 0.120302457 |
| ## Metalimnion:West Long Lake-Metalimnion:Ward Lake | -0.625354237 |
| ## PML:West Long Lake-Metalimnion:Ward Lake | 0.709384858 |
| ## Hypolimnion:West Long Lake-Metalimnion:Ward Lake | -0.405821663 |
| ## Hypolimnion:Ward Lake-PML:Ward Lake | -1.048481267 |
| ## Epilimnion:West Long Lake-PML:Ward Lake | -1.144141988 |
| ## Metalimnion:West Long Lake-PML:Ward Lake | -1.889798681 |
| ## PML:West Long Lake-PML:Ward Lake | -0.555059587 |
| ## Hypolimnion:West Long Lake-PML:Ward Lake | -1.670266108 |
| ## Epilimnion:West Long Lake-Hypolimnion:Ward Lake | 1.275609682 |
| ## Metalimnion:West Long Lake-Hypolimnion:Ward Lake | 0.530148046 |
| ## PML:West Long Lake-Hypolimnion:Ward Lake | 1.862993126 |
| ## Hypolimnion:West Long Lake-Hypolimnion:Ward Lake | 0.749275947 |
| ## Metalimnion:West Long Lake-Epilimnion:West Long Lake | -0.008599124 |
| ## PML:West Long Lake-Epilimnion:West Long Lake | 1.400539083 |
| ## Hypolimnion:West Long Lake-Epilimnion:West Long Lake | 0.228300746 |
| ## PML:West Long Lake-Metalimnion:West Long Lake | 2.108822491 |
| ## Hypolimnion:West Long Lake-Metalimnion:West Long Lake | 0.930831736 |
| ## Hypolimnion:West Long Lake-PML:West Long Lake | 0.066022893 |
| ## | p adj |
| ## Metalimnion:Crampton Lake-Epilimnion:Crampton Lake | NA |
| ## PML:Crampton Lake-Epilimnion:Crampton Lake | NA |
| ## Hypolimnion:Crampton Lake-Epilimnion:Crampton Lake | NA |
| ## Epilimnion:East Long Lake-Epilimnion:Crampton Lake | NA |
| ## Metalimnion:East Long Lake-Epilimnion:Crampton Lake | NA |
| ## PML:East Long Lake-Epilimnion:Crampton Lake | NA |
| ## Hypolimnion:East Long Lake-Epilimnion:Crampton Lake | NA |
| ## Epilimnion:Hummingbird Lake-Epilimnion:Crampton Lake | NA |
| ## Metalimnion:Hummingbird Lake-Epilimnion:Crampton Lake | NA |
| ## PML:Hummingbird Lake-Epilimnion:Crampton Lake | NA |
| ## Hypolimnion:Hummingbird Lake-Epilimnion:Crampton Lake | NA |
| ## Epilimnion:Paul Lake-Epilimnion:Crampton Lake | NA |
| ## Metalimnion:Paul Lake-Epilimnion:Crampton Lake | NA |
| ## PML:Paul Lake-Epilimnion:Crampton Lake | NA |
| ## Hypolimnion:Paul Lake-Epilimnion:Crampton Lake | NA |
| ## Epilimnion:Peter Lake-Epilimnion:Crampton Lake | NA |
| ## Metalimnion:Peter Lake-Epilimnion:Crampton Lake | NA |
| ## PML:Peter Lake-Epilimnion:Crampton Lake | NA |
| ## Hypolimnion:Peter Lake-Epilimnion:Crampton Lake | NA |
| ## Epilimnion:Tuesday Lake-Epilimnion:Crampton Lake | NA |
| ## Metalimnion:Tuesday Lake-Epilimnion:Crampton Lake | NA |
| ## PML:Tuesday Lake-Epilimnion:Crampton Lake | NA |
| ## Hypolimnion:Tuesday Lake-Epilimnion:Crampton Lake | NA |
| ## Epilimnion:Ward Lake-Epilimnion:Crampton Lake | NA |

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| ## Metalimnion:Ward Lake-Epilimnion:Crampton Lake | NA |
| ## PML:Ward Lake-Epilimnion:Crampton Lake | NA |
| ## Hypolimnion:Ward Lake-Epilimnion:Crampton Lake | NA |
| ## Epilimnion:West Long Lake-Epilimnion:Crampton Lake | NA |
| ## Metalimnion:West Long Lake-Epilimnion:Crampton Lake | NA |
| ## PML:West Long Lake-Epilimnion:Crampton Lake | NA |
| ## Hypolimnion:West Long Lake-Epilimnion:Crampton Lake | NA |
| ## PML:Crampton Lake-Metalimnion:Crampton Lake | 1.0000000 |
| ## Hypolimnion:Crampton Lake-Metalimnion:Crampton Lake | 1.0000000 |
| ## Epilimnion:East Long Lake-Metalimnion:Crampton Lake | 0.0000000 |
| ## Metalimnion:East Long Lake-Metalimnion:Crampton Lake | 0.0000000 |
| ## PML:East Long Lake-Metalimnion:Crampton Lake | 0.0000000 |
| ## Hypolimnion:East Long Lake-Metalimnion:Crampton Lake | 0.0000000 |
| ## Epilimnion:Hummingbird Lake-Metalimnion:Crampton Lake | NA |
| ## Metalimnion:Hummingbird Lake-Metalimnion:Crampton Lake | 0.0000000 |
| ## PML:Hummingbird Lake-Metalimnion:Crampton Lake | 0.0000000 |
| ## Hypolimnion:Hummingbird Lake-Metalimnion:Crampton Lake | 0.0000000 |
| ## Epilimnion:Paul Lake-Metalimnion:Crampton Lake | 0.0004227 |
| ## Metalimnion:Paul Lake-Metalimnion:Crampton Lake | 0.9999989 |
| ## PML:Paul Lake-Metalimnion:Crampton Lake | 0.9511767 |
| ## Hypolimnion:Paul Lake-Metalimnion:Crampton Lake | 0.0000111 |
| ## Epilimnion:Peter Lake-Metalimnion:Crampton Lake | 0.0000001 |
| ## Metalimnion:Peter Lake-Metalimnion:Crampton Lake | 0.0000385 |
| ## PML:Peter Lake-Metalimnion:Crampton Lake | 0.0000000 |
| ## Hypolimnion:Peter Lake-Metalimnion:Crampton Lake | 0.0000000 |
| ## Epilimnion:Tuesday Lake-Metalimnion:Crampton Lake | 0.0000000 |
| ## Metalimnion:Tuesday Lake-Metalimnion:Crampton Lake | 0.0000000 |
| ## PML:Tuesday Lake-Metalimnion:Crampton Lake | 0.0000000 |
| ## Hypolimnion:Tuesday Lake-Metalimnion:Crampton Lake | 0.0000000 |
| ## Epilimnion:Ward Lake-Metalimnion:Crampton Lake | NA |
| ## Metalimnion:Ward Lake-Metalimnion:Crampton Lake | 0.0000000 |
| ## PML:Ward Lake-Metalimnion:Crampton Lake | 0.0000000 |
| ## Hypolimnion:Ward Lake-Metalimnion:Crampton Lake | 0.0000000 |
| ## Epilimnion:West Long Lake-Metalimnion:Crampton Lake | 0.0000000 |
| ## Metalimnion:West Long Lake-Metalimnion:Crampton Lake | 0.0000000 |
| ## PML:West Long Lake-Metalimnion:Crampton Lake | 0.0000000 |
| ## Hypolimnion:West Long Lake-Metalimnion:Crampton Lake | 0.0000000 |
| ## Hypolimnion:Crampton Lake-PML:Crampton Lake | 0.9999998 |
| ## Epilimnion:East Long Lake-PML:Crampton Lake | 0.0000000 |
| ## Metalimnion:East Long Lake-PML:Crampton Lake | 0.0000000 |
| ## PML:East Long Lake-PML:Crampton Lake | 0.0000000 |
| ## Hypolimnion:East Long Lake-PML:Crampton Lake | 0.0000000 |
| ## Epilimnion:Hummingbird Lake-PML:Crampton Lake | NA |
| ## Metalimnion:Hummingbird Lake-PML:Crampton Lake | 0.0000000 |
| ## PML:Hummingbird Lake-PML:Crampton Lake | 0.0000000 |

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| ## Hypolimnion:Hummingbird Lake-PML:Crampton Lake | 0.0000000 |
| ## Epilimnion:Paul Lake-PML:Crampton Lake | 0.0303236 |
| ## Metalimnion:Paul Lake-PML:Crampton Lake | 1.0000000 |
| ## PML:Paul Lake-PML:Crampton Lake | 0.9999999 |
| ## Hypolimnion:Paul Lake-PML:Crampton Lake | 0.0022401 |
| ## Epilimnion:Peter Lake-PML:Crampton Lake | 0.0000200 |
| ## Metalimnion:Peter Lake-PML:Crampton Lake | 0.0064321 |
| ## PML:Peter Lake-PML:Crampton Lake | 0.0000000 |
| ## Hypolimnion:Peter Lake-PML:Crampton Lake | 0.0000000 |
| ## Epilimnion:Tuesday Lake-PML:Crampton Lake | 0.0000000 |
| ## Metalimnion:Tuesday Lake-PML:Crampton Lake | 0.0000000 |
| ## PML:Tuesday Lake-PML:Crampton Lake | 0.0000000 |
| ## Hypolimnion:Tuesday Lake-PML:Crampton Lake | 0.0000000 |
| ## Epilimnion:Ward Lake-PML:Crampton Lake | NA |
| ## Metalimnion:Ward Lake-PML:Crampton Lake | 0.0000000 |
| ## PML:Ward Lake-PML:Crampton Lake | 0.0000000 |
| ## Hypolimnion:Ward Lake-PML:Crampton Lake | 0.0000000 |
| ## Epilimnion:West Long Lake-PML:Crampton Lake | 0.0000000 |
| ## Metalimnion:West Long Lake-PML:Crampton Lake | 0.0000000 |
| ## PML:West Long Lake-PML:Crampton Lake | 0.0000000 |
| ## Hypolimnion:West Long Lake-PML:Crampton Lake | 0.0000000 |
| ## Epilimnion:East Long Lake-Hypolimnion:Crampton Lake | 0.0000000 |
| ## Metalimnion:East Long Lake-Hypolimnion:Crampton Lake | 0.0000000 |
| ## PML:East Long Lake-Hypolimnion:Crampton Lake | 0.0000000 |
| ## Hypolimnion:East Long Lake-Hypolimnion:Crampton Lake | 0.0000000 |
| ## Epilimnion:Hummingbird Lake-Hypolimnion:Crampton Lake | NA |
| ## Metalimnion:Hummingbird Lake-Hypolimnion:Crampton Lake | 0.0000000 |
| ## PML:Hummingbird Lake-Hypolimnion:Crampton Lake | 0.0000000 |
| ## Hypolimnion:Hummingbird Lake-Hypolimnion:Crampton Lake | 0.0000000 |
| ## Epilimnion:Paul Lake-Hypolimnion:Crampton Lake | 0.0000976 |
| ## Metalimnion:Paul Lake-Hypolimnion:Crampton Lake | 0.9997525 |
| ## PML:Paul Lake-Hypolimnion:Crampton Lake | 0.8005593 |
| ## Hypolimnion:Paul Lake-Hypolimnion:Crampton Lake | 0.0000020 |
| ## Epilimnion:Peter Lake-Hypolimnion:Crampton Lake | 0.0000000 |
| ## Metalimnion:Peter Lake-Hypolimnion:Crampton Lake | 0.0000071 |
| ## PML:Peter Lake-Hypolimnion:Crampton Lake | 0.0000000 |
| ## Hypolimnion:Peter Lake-Hypolimnion:Crampton Lake | 0.0000000 |
| ## Epilimnion:Tuesday Lake-Hypolimnion:Crampton Lake | 0.0000000 |
| ## Metalimnion:Tuesday Lake-Hypolimnion:Crampton Lake | 0.0000000 |
| ## PML:Tuesday Lake-Hypolimnion:Crampton Lake | 0.0000000 |
| ## Hypolimnion:Tuesday Lake-Hypolimnion:Crampton Lake | 0.0000000 |
| ## Epilimnion:Ward Lake-Hypolimnion:Crampton Lake | NA |
| ## Metalimnion:Ward Lake-Hypolimnion:Crampton Lake | 0.0000000 |
| ## PML:Ward Lake-Hypolimnion:Crampton Lake | 0.0000000 |
| ## Hypolimnion:Ward Lake-Hypolimnion:Crampton Lake | 0.0000000 |

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| ## Epilimnion:West Long Lake-Hypolimnion:Crampton Lake | 0.0000000 |
| ## Metalimnion:West Long Lake-Hypolimnion:Crampton Lake | 0.0000000 |
| ## PML:West Long Lake-Hypolimnion:Crampton Lake | 0.0000000 |
| ## Hypolimnion:West Long Lake-Hypolimnion:Crampton Lake | 0.0000000 |
| ## Metalimnion:East Long Lake-Epilimnion:East Long Lake | 1.0000000 |
| ## PML:East Long Lake-Epilimnion:East Long Lake | 0.0000010 |
| ## Hypolimnion:East Long Lake-Epilimnion:East Long Lake | 0.0000000 |
| ## Epilimnion:Hummingbird Lake-Epilimnion:East Long Lake | NA |
| ## Metalimnion:Hummingbird Lake-Epilimnion:East Long Lake | 0.0000000 |
| ## PML:Hummingbird Lake-Epilimnion:East Long Lake | 0.0000000 |
| ## Hypolimnion:Hummingbird Lake-Epilimnion:East Long Lake | 0.0000000 |
| ## Epilimnion:Paul Lake-Epilimnion:East Long Lake | 0.0000000 |
| ## Metalimnion:Paul Lake-Epilimnion:East Long Lake | 0.0000000 |
| ## PML:Paul Lake-Epilimnion:East Long Lake | 0.0000000 |
| ## Hypolimnion:Paul Lake-Epilimnion:East Long Lake | 0.0000000 |
| ## Epilimnion:Peter Lake-Epilimnion:East Long Lake | 0.0000000 |
| ## Metalimnion:Peter Lake-Epilimnion:East Long Lake | 0.0000000 |
| ## PML:Peter Lake-Epilimnion:East Long Lake | 0.0000000 |
| ## Hypolimnion:Peter Lake-Epilimnion:East Long Lake | 0.0000000 |
| ## Epilimnion:Tuesday Lake-Epilimnion:East Long Lake | 0.0000000 |
| ## Metalimnion:Tuesday Lake-Epilimnion:East Long Lake | 0.0000000 |
| ## PML:Tuesday Lake-Epilimnion:East Long Lake | 0.0000000 |
| ## Hypolimnion:Tuesday Lake-Epilimnion:East Long Lake | 0.0000000 |
| ## Epilimnion:Ward Lake-Epilimnion:East Long Lake | NA |
| ## Metalimnion:Ward Lake-Epilimnion:East Long Lake | 0.0000000 |
| ## PML:Ward Lake-Epilimnion:East Long Lake | 0.0000000 |
| ## Hypolimnion:Ward Lake-Epilimnion:East Long Lake | 0.0000000 |
| ## Epilimnion:West Long Lake-Epilimnion:East Long Lake | 0.0000000 |
| ## Metalimnion:West Long Lake-Epilimnion:East Long Lake | 0.0000000 |
| ## PML:West Long Lake-Epilimnion:East Long Lake | 0.0000000 |
| ## Hypolimnion:West Long Lake-Epilimnion:East Long Lake | 0.0000000 |
| ## PML:East Long Lake-Metalimnion:East Long Lake | 0.0000001 |
| ## Hypolimnion:East Long Lake-Metalimnion:East Long Lake | 0.0000002 |
| ## Epilimnion:Hummingbird Lake-Metalimnion:East Long Lake | NA |
| ## Metalimnion:Hummingbird Lake-Metalimnion:East Long Lake | 0.0000000 |
| ## PML:Hummingbird Lake-Metalimnion:East Long Lake | 0.0000000 |
| ## Hypolimnion:Hummingbird Lake-Metalimnion:East Long Lake | 0.0000000 |
| ## Epilimnion:Paul Lake-Metalimnion:East Long Lake | 0.0000000 |
| ## Metalimnion:Paul Lake-Metalimnion:East Long Lake | 0.0000000 |
| ## PML:Paul Lake-Metalimnion:East Long Lake | 0.0000000 |
| ## Hypolimnion:Paul Lake-Metalimnion:East Long Lake | 0.0000000 |
| ## Epilimnion:Peter Lake-Metalimnion:East Long Lake | 0.0000000 |
| ## Metalimnion:Peter Lake-Metalimnion:East Long Lake | 0.0000000 |
| ## PML:Peter Lake-Metalimnion:East Long Lake | 0.0000000 |
| ## Hypolimnion:Peter Lake-Metalimnion:East Long Lake | 0.0000000 |

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| ## Epilimnion:Tuesday Lake-Metalimnion:East Long Lake | 0.0000000 |
| ## Metalimnion:Tuesday Lake-Metalimnion:East Long Lake | 0.0000000 |
| ## PML:Tuesday Lake-Metalimnion:East Long Lake | 0.0000000 |
| ## Hypolimnion:Tuesday Lake-Metalimnion:East Long Lake | 0.0000000 |
| ## Epilimnion:Ward Lake-Metalimnion:East Long Lake | NA |
| ## Metalimnion:Ward Lake-Metalimnion:East Long Lake | 0.0000000 |
| ## PML:Ward Lake-Metalimnion:East Long Lake | 0.0000000 |
| ## Hypolimnion:Ward Lake-Metalimnion:East Long Lake | 0.0000000 |
| ## Epilimnion:West Long Lake-Metalimnion:East Long Lake | 0.0000000 |
| ## Metalimnion:West Long Lake-Metalimnion:East Long Lake | 0.0000000 |
| ## PML:West Long Lake-Metalimnion:East Long Lake | 0.0000000 |
| ## Hypolimnion:West Long Lake-Metalimnion:East Long Lake | 0.0000000 |
| ## Hypolimnion:East Long Lake-PML:East Long Lake | 0.0000000 |
| ## Epilimnion:Hummingbird Lake-PML:East Long Lake | NA |
| ## Metalimnion:Hummingbird Lake-PML:East Long Lake | 0.0000000 |
| ## PML:Hummingbird Lake-PML:East Long Lake | 0.0000000 |
| ## Hypolimnion:Hummingbird Lake-PML:East Long Lake | 0.0000000 |
| ## Epilimnion:Paul Lake-PML:East Long Lake | 0.0000000 |
| ## Metalimnion:Paul Lake-PML:East Long Lake | 0.0000000 |
| ## PML:Paul Lake-PML:East Long Lake | 0.0000000 |
| ## Hypolimnion:Paul Lake-PML:East Long Lake | 0.0000000 |
| ## Epilimnion:Peter Lake-PML:East Long Lake | 0.0000000 |
| ## Metalimnion:Peter Lake-PML:East Long Lake | 0.0000000 |
| ## PML:Peter Lake-PML:East Long Lake | 0.0000000 |
| ## Hypolimnion:Peter Lake-PML:East Long Lake | 0.0000000 |
| ## Epilimnion:Tuesday Lake-PML:East Long Lake | 0.0376716 |
| ## Metalimnion:Tuesday Lake-PML:East Long Lake | 0.3493900 |
| ## PML:Tuesday Lake-PML:East Long Lake | 1.0000000 |
| ## Hypolimnion:Tuesday Lake-PML:East Long Lake | 1.0000000 |
| ## Epilimnion:Ward Lake-PML:East Long Lake | NA |
| ## Metalimnion:Ward Lake-PML:East Long Lake | 0.0172155 |
| ## PML:Ward Lake-PML:East Long Lake | 1.0000000 |
| ## Hypolimnion:Ward Lake-PML:East Long Lake | 0.0000000 |
| ## Epilimnion:West Long Lake-PML:East Long Lake | 0.0000000 |
| ## Metalimnion:West Long Lake-PML:East Long Lake | 0.0000000 |
| ## PML:West Long Lake-PML:East Long Lake | 0.0000015 |
| ## Hypolimnion:West Long Lake-PML:East Long Lake | 0.0000000 |
| ## Epilimnion:Hummingbird Lake-Hypolimnion:East Long Lake | NA |
| ## Metalimnion:Hummingbird Lake-Hypolimnion:East Long Lake | 0.0000000 |
| ## PML:Hummingbird Lake-Hypolimnion:East Long Lake | 0.0000000 |
| ## Hypolimnion:Hummingbird Lake-Hypolimnion:East Long Lake | 0.0000000 |
| ## Epilimnion:Paul Lake-Hypolimnion:East Long Lake | 0.0000000 |
| ## Metalimnion:Paul Lake-Hypolimnion:East Long Lake | 0.0000000 |
| ## PML:Paul Lake-Hypolimnion:East Long Lake | 0.0000000 |
| ## Hypolimnion:Paul Lake-Hypolimnion:East Long Lake | 0.0000000 |

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| ## Epilimnion:Peter Lake-Hypolimnion:East Long Lake | 0.0000000 |
| ## Metalimnion:Peter Lake-Hypolimnion:East Long Lake | 0.0000000 |
| ## PML:Peter Lake-Hypolimnion:East Long Lake | 0.0000000 |
| ## Hypolimnion:Peter Lake-Hypolimnion:East Long Lake | 0.0000000 |
| ## Epilimnion:Tuesday Lake-Hypolimnion:East Long Lake | 0.0000000 |
| ## Metalimnion:Tuesday Lake-Hypolimnion:East Long Lake | 0.0000000 |
| ## PML:Tuesday Lake-Hypolimnion:East Long Lake | 0.0000000 |
| ## Hypolimnion:Tuesday Lake-Hypolimnion:East Long Lake | 0.0000000 |
| ## Epilimnion:Ward Lake-Hypolimnion:East Long Lake | NA |
| ## Metalimnion:Ward Lake-Hypolimnion:East Long Lake | 0.0000000 |
| ## PML:Ward Lake-Hypolimnion:East Long Lake | 0.0000000 |
| ## Hypolimnion:Ward Lake-Hypolimnion:East Long Lake | 0.0000000 |
| ## Epilimnion:West Long Lake-Hypolimnion:East Long Lake | 0.0000000 |
| ## Metalimnion:West Long Lake-Hypolimnion:East Long Lake | 0.0000000 |
| ## PML:West Long Lake-Hypolimnion:East Long Lake | 0.0000000 |
| ## Hypolimnion:West Long Lake-Hypolimnion:East Long Lake | 0.0000000 |
| ## Metalimnion:Hummingbird Lake-Epilimnion:Hummingbird Lake | NA |
| ## PML:Hummingbird Lake-Epilimnion:Hummingbird Lake | NA |
| ## Hypolimnion:Hummingbird Lake-Epilimnion:Hummingbird Lake | NA |
| ## Epilimnion:Paul Lake-Epilimnion:Hummingbird Lake | NA |
| ## Metalimnion:Paul Lake-Epilimnion:Hummingbird Lake | NA |
| ## PML:Paul Lake-Epilimnion:Hummingbird Lake | NA |
| ## Hypolimnion:Paul Lake-Epilimnion:Hummingbird Lake | NA |
| ## Epilimnion:Peter Lake-Epilimnion:Hummingbird Lake | NA |
| ## Metalimnion:Peter Lake-Epilimnion:Hummingbird Lake | NA |
| ## PML:Peter Lake-Epilimnion:Hummingbird Lake | NA |
| ## Hypolimnion:Peter Lake-Epilimnion:Hummingbird Lake | NA |
| ## Epilimnion:Tuesday Lake-Epilimnion:Hummingbird Lake | NA |
| ## Metalimnion:Tuesday Lake-Epilimnion:Hummingbird Lake | NA |
| ## PML:Tuesday Lake-Epilimnion:Hummingbird Lake | NA |
| ## Hypolimnion:Tuesday Lake-Epilimnion:Hummingbird Lake | NA |
| ## Epilimnion:Ward Lake-Epilimnion:Hummingbird Lake | NA |
| ## Metalimnion:Ward Lake-Epilimnion:Hummingbird Lake | NA |
| ## PML:Ward Lake-Epilimnion:Hummingbird Lake | NA |
| ## Hypolimnion:Ward Lake-Epilimnion:Hummingbird Lake | NA |
| ## Epilimnion:West Long Lake-Epilimnion:Hummingbird Lake | NA |
| ## Metalimnion:West Long Lake-Epilimnion:Hummingbird Lake | NA |
| ## PML:West Long Lake-Epilimnion:Hummingbird Lake | NA |
| ## Hypolimnion:West Long Lake-Epilimnion:Hummingbird Lake | NA |
| ## PML:Hummingbird Lake-Metalimnion:Hummingbird Lake | 1.0000000 |
| ## Hypolimnion:Hummingbird Lake-Metalimnion:Hummingbird Lake | 0.4646723 |
| ## Epilimnion:Paul Lake-Metalimnion:Hummingbird Lake | 0.0000000 |
| ## Metalimnion:Paul Lake-Metalimnion:Hummingbird Lake | 0.0000000 |
| ## PML:Paul Lake-Metalimnion:Hummingbird Lake | 0.0000000 |
| ## Hypolimnion:Paul Lake-Metalimnion:Hummingbird Lake | 0.0000000 |

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| ## Epilimnion:Peter Lake-Metalimnion:Hummingbird Lake | 0.0000000 |
| ## Metalimnion:Peter Lake-Metalimnion:Hummingbird Lake | 0.0000000 |
| ## PML:Peter Lake-Metalimnion:Hummingbird Lake | 0.0000000 |
| ## Hypolimnion:Peter Lake-Metalimnion:Hummingbird Lake | 0.0000000 |
| ## Epilimnion:Tuesday Lake-Metalimnion:Hummingbird Lake | 0.0000000 |
| ## Metalimnion:Tuesday Lake-Metalimnion:Hummingbird Lake | 0.0000000 |
| ## PML:Tuesday Lake-Metalimnion:Hummingbird Lake | 0.0000000 |
| ## Hypolimnion:Tuesday Lake-Metalimnion:Hummingbird Lake | 0.0000000 |
| ## Epilimnion:Ward Lake-Metalimnion:Hummingbird Lake | NA |
| ## Metalimnion:Ward Lake-Metalimnion:Hummingbird Lake | 0.0000000 |
| ## PML:Ward Lake-Metalimnion:Hummingbird Lake | 0.0000000 |
| ## Hypolimnion:Ward Lake-Metalimnion:Hummingbird Lake | 0.0000000 |
| ## Epilimnion:West Long Lake-Metalimnion:Hummingbird Lake | 0.0000000 |
| ## Metalimnion:West Long Lake-Metalimnion:Hummingbird Lake | 0.0000000 |
| ## PML:West Long Lake-Metalimnion:Hummingbird Lake | 0.0000000 |
| ## Hypolimnion:West Long Lake-Metalimnion:Hummingbird Lake | 0.0000000 |
| ## Hypolimnion:Hummingbird Lake-PML:Hummingbird Lake | 0.9210127 |
| ## Epilimnion:Paul Lake-PML:Hummingbird Lake | 0.0000000 |
| ## Metalimnion:Paul Lake-PML:Hummingbird Lake | 0.0000000 |
| ## PML:Paul Lake-PML:Hummingbird Lake | 0.0000000 |
| ## Hypolimnion:Paul Lake-PML:Hummingbird Lake | 0.0000000 |
| ## Epilimnion:Peter Lake-PML:Hummingbird Lake | 0.0000000 |
| ## Metalimnion:Peter Lake-PML:Hummingbird Lake | 0.0000000 |
| ## PML:Peter Lake-PML:Hummingbird Lake | 0.0000000 |
| ## Hypolimnion:Peter Lake-PML:Hummingbird Lake | 0.0000000 |
| ## Epilimnion:Tuesday Lake-PML:Hummingbird Lake | 0.0000000 |
| ## Metalimnion:Tuesday Lake-PML:Hummingbird Lake | 0.0000000 |
| ## PML:Tuesday Lake-PML:Hummingbird Lake | 0.0000000 |
| ## Hypolimnion:Tuesday Lake-PML:Hummingbird Lake | 0.0000000 |
| ## Epilimnion:Ward Lake-PML:Hummingbird Lake | NA |
| ## Metalimnion:Ward Lake-PML:Hummingbird Lake | 0.0000000 |
| ## PML:Ward Lake-PML:Hummingbird Lake | 0.0000000 |
| ## Hypolimnion:Ward Lake-PML:Hummingbird Lake | 0.0000000 |
| ## Epilimnion:West Long Lake-PML:Hummingbird Lake | 0.0000000 |
| ## Metalimnion:West Long Lake-PML:Hummingbird Lake | 0.0000000 |
| ## PML:West Long Lake-PML:Hummingbird Lake | 0.0000000 |
| ## Hypolimnion:West Long Lake-PML:Hummingbird Lake | 0.0000000 |
| ## Epilimnion:Paul Lake-Hypolimnion:Hummingbird Lake | 0.0000000 |
| ## Metalimnion:Paul Lake-Hypolimnion:Hummingbird Lake | 0.0000000 |
| ## PML:Paul Lake-Hypolimnion:Hummingbird Lake | 0.0000000 |
| ## Hypolimnion:Paul Lake-Hypolimnion:Hummingbird Lake | 0.0000000 |
| ## Epilimnion:Peter Lake-Hypolimnion:Hummingbird Lake | 0.0000000 |
| ## Metalimnion:Peter Lake-Hypolimnion:Hummingbird Lake | 0.0000000 |
| ## PML:Peter Lake-Hypolimnion:Hummingbird Lake | 0.0000000 |
| ## Hypolimnion:Peter Lake-Hypolimnion:Hummingbird Lake | 0.0000000 |

| | |
|--|-----------|
| ## Epilimnion:Tuesday Lake-Hypolimnion:Hummingbird Lake | 0.0000000 |
| ## Metalimnion:Tuesday Lake-Hypolimnion:Hummingbird Lake | 0.0000000 |
| ## PML:Tuesday Lake-Hypolimnion:Hummingbird Lake | 0.0000000 |
| ## Hypolimnion:Tuesday Lake-Hypolimnion:Hummingbird Lake | 0.0000000 |
| ## Epilimnion:Ward Lake-Hypolimnion:Hummingbird Lake | NA |
| ## Metalimnion:Ward Lake-Hypolimnion:Hummingbird Lake | 0.0000000 |
| ## PML:Ward Lake-Hypolimnion:Hummingbird Lake | 0.0000000 |
| ## Hypolimnion:Ward Lake-Hypolimnion:Hummingbird Lake | 0.0000000 |
| ## Epilimnion:West Long Lake-Hypolimnion:Hummingbird Lake | 0.0000000 |
| ## Metalimnion:West Long Lake-Hypolimnion:Hummingbird Lake | 0.0000000 |
| ## PML:West Long Lake-Hypolimnion:Hummingbird Lake | 0.0000000 |
| ## Hypolimnion:West Long Lake-Hypolimnion:Hummingbird Lake | 0.0000000 |
| ## Metalimnion:Paul Lake-Epilimnion:Paul Lake | 0.0000000 |
| ## PML:Paul Lake-Epilimnion:Paul Lake | 0.0013586 |
| ## Hypolimnion:Paul Lake-Epilimnion:Paul Lake | 1.0000000 |
| ## Epilimnion:Peter Lake-Epilimnion:Paul Lake | 0.9317818 |
| ## Metalimnion:Peter Lake-Epilimnion:Paul Lake | 1.0000000 |
| ## PML:Peter Lake-Epilimnion:Paul Lake | 0.0087858 |
| ## Hypolimnion:Peter Lake-Epilimnion:Paul Lake | 0.0000090 |
| ## Epilimnion:Tuesday Lake-Epilimnion:Paul Lake | 0.0000000 |
| ## Metalimnion:Tuesday Lake-Epilimnion:Paul Lake | 0.0000000 |
| ## PML:Tuesday Lake-Epilimnion:Paul Lake | 0.0000000 |
| ## Hypolimnion:Tuesday Lake-Epilimnion:Paul Lake | 0.0000000 |
| ## Epilimnion:Ward Lake-Epilimnion:Paul Lake | NA |
| ## Metalimnion:Ward Lake-Epilimnion:Paul Lake | 0.0000000 |
| ## PML:Ward Lake-Epilimnion:Paul Lake | 0.0000000 |
| ## Hypolimnion:Ward Lake-Epilimnion:Paul Lake | 0.0000000 |
| ## Epilimnion:West Long Lake-Epilimnion:Paul Lake | 0.0000000 |
| ## Metalimnion:West Long Lake-Epilimnion:Paul Lake | 0.0000000 |
| ## PML:West Long Lake-Epilimnion:Paul Lake | 0.0000000 |
| ## Hypolimnion:West Long Lake-Epilimnion:Paul Lake | 0.0000000 |
| ## PML:Paul Lake-Metalimnion:Paul Lake | 0.9858886 |
| ## Hypolimnion:Paul Lake-Metalimnion:Paul Lake | 0.0000000 |
| ## Epilimnion:Peter Lake-Metalimnion:Paul Lake | 0.0000000 |
| ## Metalimnion:Peter Lake-Metalimnion:Paul Lake | 0.0000000 |
| ## PML:Peter Lake-Metalimnion:Paul Lake | 0.0000000 |
| ## Hypolimnion:Peter Lake-Metalimnion:Paul Lake | 0.0000000 |
| ## Epilimnion:Tuesday Lake-Metalimnion:Paul Lake | 0.0000000 |
| ## Metalimnion:Tuesday Lake-Metalimnion:Paul Lake | 0.0000000 |
| ## PML:Tuesday Lake-Metalimnion:Paul Lake | 0.0000000 |
| ## Hypolimnion:Tuesday Lake-Metalimnion:Paul Lake | 0.0000000 |
| ## Epilimnion:Ward Lake-Metalimnion:Paul Lake | NA |
| ## Metalimnion:Ward Lake-Metalimnion:Paul Lake | 0.0000000 |
| ## PML:Ward Lake-Metalimnion:Paul Lake | 0.0000000 |
| ## Hypolimnion:Ward Lake-Metalimnion:Paul Lake | 0.0000000 |

| | |
|---|-----------|
| ## Epilimnion:West Long Lake-Metalimnion:Paul Lake | 0.0000000 |
| ## Metalimnion:West Long Lake-Metalimnion:Paul Lake | 0.0000000 |
| ## PML:West Long Lake-Metalimnion:Paul Lake | 0.0000000 |
| ## Hypolimnion:West Long Lake-Metalimnion:Paul Lake | 0.0000000 |
| ## Hypolimnion:Paul Lake-PML:Paul Lake | 0.0000001 |
| ## Epilimnion:Peter Lake-PML:Paul Lake | 0.0000000 |
| ## Metalimnion:Peter Lake-PML:Paul Lake | 0.0000006 |
| ## PML:Peter Lake-PML:Paul Lake | 0.0000000 |
| ## Hypolimnion:Peter Lake-PML:Paul Lake | 0.0000000 |
| ## Epilimnion:Tuesday Lake-PML:Paul Lake | 0.0000000 |
| ## Metalimnion:Tuesday Lake-PML:Paul Lake | 0.0000000 |
| ## PML:Tuesday Lake-PML:Paul Lake | 0.0000000 |
| ## Hypolimnion:Tuesday Lake-PML:Paul Lake | 0.0000000 |
| ## Epilimnion:Ward Lake-PML:Paul Lake | NA |
| ## Metalimnion:Ward Lake-PML:Paul Lake | 0.0000000 |
| ## PML:Ward Lake-PML:Paul Lake | 0.0000000 |
| ## Hypolimnion:Ward Lake-PML:Paul Lake | 0.0000000 |
| ## Epilimnion:West Long Lake-PML:Paul Lake | 0.0000000 |
| ## Metalimnion:West Long Lake-PML:Paul Lake | 0.0000000 |
| ## PML:West Long Lake-PML:Paul Lake | 0.0000000 |
| ## Hypolimnion:West Long Lake-PML:Paul Lake | 0.0000000 |
| ## Epilimnion:Peter Lake-Hypolimnion:Paul Lake | 0.9807866 |
| ## Metalimnion:Peter Lake-Hypolimnion:Paul Lake | 1.0000000 |
| ## PML:Peter Lake-Hypolimnion:Paul Lake | 0.0032741 |
| ## Hypolimnion:Peter Lake-Hypolimnion:Paul Lake | 0.0000003 |
| ## Epilimnion:Tuesday Lake-Hypolimnion:Paul Lake | 0.0000000 |
| ## Metalimnion:Tuesday Lake-Hypolimnion:Paul Lake | 0.0000000 |
| ## PML:Tuesday Lake-Hypolimnion:Paul Lake | 0.0000000 |
| ## Hypolimnion:Tuesday Lake-Hypolimnion:Paul Lake | 0.0000000 |
| ## Epilimnion:Ward Lake-Hypolimnion:Paul Lake | NA |
| ## Metalimnion:Ward Lake-Hypolimnion:Paul Lake | 0.0000000 |
| ## PML:Ward Lake-Hypolimnion:Paul Lake | 0.0000000 |
| ## Hypolimnion:Ward Lake-Hypolimnion:Paul Lake | 0.0000000 |
| ## Epilimnion:West Long Lake-Hypolimnion:Paul Lake | 0.0000000 |
| ## Metalimnion:West Long Lake-Hypolimnion:Paul Lake | 0.0000000 |
| ## PML:West Long Lake-Hypolimnion:Paul Lake | 0.0000000 |
| ## Hypolimnion:West Long Lake-Hypolimnion:Paul Lake | 0.0000000 |
| ## Metalimnion:Peter Lake-Epilimnion:Peter Lake | 0.7384188 |
| ## PML:Peter Lake-Epilimnion:Peter Lake | 0.9984944 |
| ## Hypolimnion:Peter Lake-Epilimnion:Peter Lake | 0.3760486 |
| ## Epilimnion:Tuesday Lake-Epilimnion:Peter Lake | 0.0000000 |
| ## Metalimnion:Tuesday Lake-Epilimnion:Peter Lake | 0.0000000 |
| ## PML:Tuesday Lake-Epilimnion:Peter Lake | 0.0000000 |
| ## Hypolimnion:Tuesday Lake-Epilimnion:Peter Lake | 0.0000000 |
| ## Epilimnion:Ward Lake-Epilimnion:Peter Lake | NA |

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| ## Metalimnion:Ward Lake-Epilimnion:Peter Lake | 0.0000000 |
| ## PML:Ward Lake-Epilimnion:Peter Lake | 0.0000000 |
| ## Hypolimnion:Ward Lake-Epilimnion:Peter Lake | 0.0000000 |
| ## Epilimnion:West Long Lake-Epilimnion:Peter Lake | 0.0000000 |
| ## Metalimnion:West Long Lake-Epilimnion:Peter Lake | 0.0000000 |
| ## PML:West Long Lake-Epilimnion:Peter Lake | 0.0000000 |
| ## Hypolimnion:West Long Lake-Epilimnion:Peter Lake | 0.0000000 |
| ## PML:Peter Lake-Metalimnion:Peter Lake | 0.0000579 |
| ## Hypolimnion:Peter Lake-Metalimnion:Peter Lake | 0.0000000 |
| ## Epilimnion:Tuesday Lake-Metalimnion:Peter Lake | 0.0000000 |
| ## Metalimnion:Tuesday Lake-Metalimnion:Peter Lake | 0.0000000 |
| ## PML:Tuesday Lake-Metalimnion:Peter Lake | 0.0000000 |
| ## Hypolimnion:Tuesday Lake-Metalimnion:Peter Lake | 0.0000000 |
| ## Epilimnion:Ward Lake-Metalimnion:Peter Lake | NA |
| ## Metalimnion:Ward Lake-Metalimnion:Peter Lake | 0.0000000 |
| ## PML:Ward Lake-Metalimnion:Peter Lake | 0.0000000 |
| ## Hypolimnion:Ward Lake-Metalimnion:Peter Lake | 0.0000000 |
| ## Epilimnion:West Long Lake-Metalimnion:Peter Lake | 0.0000000 |
| ## Metalimnion:West Long Lake-Metalimnion:Peter Lake | 0.0000000 |
| ## PML:West Long Lake-Metalimnion:Peter Lake | 0.0000000 |
| ## Hypolimnion:West Long Lake-Metalimnion:Peter Lake | 0.0000000 |
| ## Hypolimnion:Peter Lake-PML:Peter Lake | 0.9999038 |
| ## Epilimnion:Tuesday Lake-PML:Peter Lake | 0.0000000 |
| ## Metalimnion:Tuesday Lake-PML:Peter Lake | 0.0000000 |
| ## PML:Tuesday Lake-PML:Peter Lake | 0.0000000 |
| ## Hypolimnion:Tuesday Lake-PML:Peter Lake | 0.0000000 |
| ## Epilimnion:Ward Lake-PML:Peter Lake | NA |
| ## Metalimnion:Ward Lake-PML:Peter Lake | 0.0000000 |
| ## PML:Ward Lake-PML:Peter Lake | 0.0000000 |
| ## Hypolimnion:Ward Lake-PML:Peter Lake | 0.0000000 |
| ## Epilimnion:West Long Lake-PML:Peter Lake | 0.0000000 |
| ## Metalimnion:West Long Lake-PML:Peter Lake | 0.0000000 |
| ## PML:West Long Lake-PML:Peter Lake | 0.0000000 |
| ## Hypolimnion:West Long Lake-PML:Peter Lake | 0.0000000 |
| ## Epilimnion:Tuesday Lake-Hypolimnion:Peter Lake | 0.0000000 |
| ## Metalimnion:Tuesday Lake-Hypolimnion:Peter Lake | 0.0000000 |
| ## PML:Tuesday Lake-Hypolimnion:Peter Lake | 0.0000000 |
| ## Hypolimnion:Tuesday Lake-Hypolimnion:Peter Lake | 0.0000000 |
| ## Epilimnion:Ward Lake-Hypolimnion:Peter Lake | NA |
| ## Metalimnion:Ward Lake-Hypolimnion:Peter Lake | 0.0000000 |
| ## PML:Ward Lake-Hypolimnion:Peter Lake | 0.0000000 |
| ## Hypolimnion:Ward Lake-Hypolimnion:Peter Lake | 0.0000000 |
| ## Epilimnion:West Long Lake-Hypolimnion:Peter Lake | 0.0000000 |
| ## Metalimnion:West Long Lake-Hypolimnion:Peter Lake | 0.0000000 |
| ## PML:West Long Lake-Hypolimnion:Peter Lake | 0.0000000 |

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| ## Hypolimnion:West Long Lake-Hypolimnion:Peter Lake | 0.0000000 |
| ## Metalimnion:Tuesday Lake-Epilimnion:Tuesday Lake | 0.9993617 |
| ## PML:Tuesday Lake-Epilimnion:Tuesday Lake | 0.0442953 |
| ## Hypolimnion:Tuesday Lake-Epilimnion:Tuesday Lake | 0.0001587 |
| ## Epilimnion:Ward Lake-Epilimnion:Tuesday Lake | NA |
| ## Metalimnion:Ward Lake-Epilimnion:Tuesday Lake | 1.0000000 |
| ## PML:Ward Lake-Epilimnion:Tuesday Lake | 0.2125165 |
| ## Hypolimnion:Ward Lake-Epilimnion:Tuesday Lake | 0.0393995 |
| ## Epilimnion:West Long Lake-Epilimnion:Tuesday Lake | 0.0063825 |
| ## Metalimnion:West Long Lake-Epilimnion:Tuesday Lake | 0.0000000 |
| ## PML:West Long Lake-Epilimnion:Tuesday Lake | 0.9112577 |
| ## Hypolimnion:West Long Lake-Epilimnion:Tuesday Lake | 0.0000002 |
| ## PML:Tuesday Lake-Metalimnion:Tuesday Lake | 0.4071897 |
| ## Hypolimnion:Tuesday Lake-Metalimnion:Tuesday Lake | 0.0011569 |
| ## Epilimnion:Ward Lake-Metalimnion:Tuesday Lake | NA |
| ## Metalimnion:Ward Lake-Metalimnion:Tuesday Lake | 0.9790553 |
| ## PML:Ward Lake-Metalimnion:Tuesday Lake | 0.8615756 |
| ## Hypolimnion:Ward Lake-Metalimnion:Tuesday Lake | 0.0000010 |
| ## Epilimnion:West Long Lake-Metalimnion:Tuesday Lake | 0.0000000 |
| ## Metalimnion:West Long Lake-Metalimnion:Tuesday Lake | 0.0000000 |
| ## PML:West Long Lake-Metalimnion:Tuesday Lake | 0.0039926 |
| ## Hypolimnion:West Long Lake-Metalimnion:Tuesday Lake | 0.0000000 |
| ## Hypolimnion:Tuesday Lake-PML:Tuesday Lake | 0.9982175 |
| ## Epilimnion:Ward Lake-PML:Tuesday Lake | NA |
| ## Metalimnion:Ward Lake-PML:Tuesday Lake | 0.0220245 |
| ## PML:Ward Lake-PML:Tuesday Lake | 1.0000000 |
| ## Hypolimnion:Ward Lake-PML:Tuesday Lake | 0.0000000 |
| ## Epilimnion:West Long Lake-PML:Tuesday Lake | 0.0000000 |
| ## Metalimnion:West Long Lake-PML:Tuesday Lake | 0.0000000 |
| ## PML:West Long Lake-PML:Tuesday Lake | 0.0000001 |
| ## Hypolimnion:West Long Lake-PML:Tuesday Lake | 0.0000000 |
| ## Epilimnion:Ward Lake-Hypolimnion:Tuesday Lake | NA |
| ## Metalimnion:Ward Lake-Hypolimnion:Tuesday Lake | 0.0001022 |
| ## PML:Ward Lake-Hypolimnion:Tuesday Lake | 1.0000000 |
| ## Hypolimnion:Ward Lake-Hypolimnion:Tuesday Lake | 0.0000000 |
| ## Epilimnion:West Long Lake-Hypolimnion:Tuesday Lake | 0.0000000 |
| ## Metalimnion:West Long Lake-Hypolimnion:Tuesday Lake | 0.0000000 |
| ## PML:West Long Lake-Hypolimnion:Tuesday Lake | 0.0000000 |
| ## Hypolimnion:West Long Lake-Hypolimnion:Tuesday Lake | 0.0000000 |
| ## Metalimnion:Ward Lake-Epilimnion:Ward Lake | NA |
| ## PML:Ward Lake-Epilimnion:Ward Lake | NA |
| ## Hypolimnion:Ward Lake-Epilimnion:Ward Lake | NA |
| ## Epilimnion:West Long Lake-Epilimnion:Ward Lake | NA |
| ## Metalimnion:West Long Lake-Epilimnion:Ward Lake | NA |
| ## PML:West Long Lake-Epilimnion:Ward Lake | NA |

```

## Hypolimnion:West Long Lake-Epilimnion:Ward Lake NA
## PML:Ward Lake-Metalimnion:Ward Lake 0.1077821
## Hypolimnion:Ward Lake-Metalimnion:Ward Lake 0.2819450
## Epilimnion:West Long Lake-Metalimnion:Ward Lake 0.1786935
## Metalimnion:West Long Lake-Metalimnion:Ward Lake 0.0000011
## PML:West Long Lake-Metalimnion:Ward Lake 0.9990986
## Hypolimnion:West Long Lake-Metalimnion:Ward Lake 0.0001182
## Hypolimnion:Ward Lake-PML:Ward Lake 0.0000000
## Epilimnion:West Long Lake-PML:Ward Lake 0.0000000
## Metalimnion:West Long Lake-PML:Ward Lake 0.0000000
## PML:West Long Lake-PML:Ward Lake 0.0000286
## Hypolimnion:West Long Lake-PML:Ward Lake 0.0000000
## Epilimnion:West Long Lake-Hypolimnion:Ward Lake 1.0000000
## Metalimnion:West Long Lake-Hypolimnion:Ward Lake 0.9904655
## PML:West Long Lake-Hypolimnion:Ward Lake 0.9988038
## Hypolimnion:West Long Lake-Hypolimnion:Ward Lake 0.9999978
## Metalimnion:West Long Lake-Epilimnion:West Long Lake 0.0427779
## PML:West Long Lake-Epilimnion:West Long Lake 0.9998222
## Hypolimnion:West Long Lake-Epilimnion:West Long Lake 0.6865555
## PML:West Long Lake-Metalimnion:West Long Lake 0.0047341
## Hypolimnion:West Long Lake-Metalimnion:West Long Lake 1.0000000
## Hypolimnion:West Long Lake-PML:West Long Lake 0.1098591

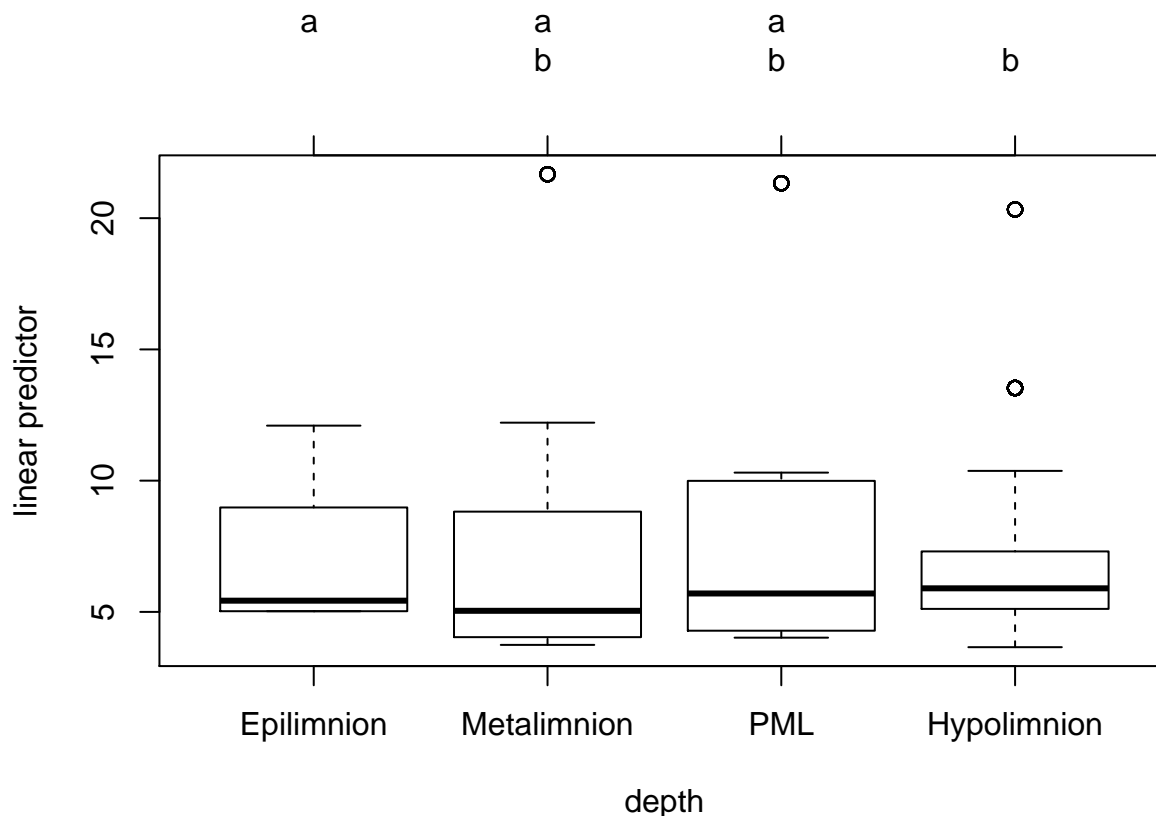
## Warning in mcp2matrix(model, linfct = linfct): covariate interactions found
## -- default contrast might be inappropriate

## Warning in glht.matrix(model = structure(list(coefficients =
## c(`(Intercept)` = 4.2022145965207, : 3 out of 32 coefficients not estimable
## in 'model')

##
## Simultaneous Tests for General Linear Hypotheses
##
## Multiple Comparisons of Means: Tukey Contrasts
##
##
## Fit: aov(formula = doc ~ depth * Lake.Name, data = carbon.data.skinny)
##
## Linear Hypotheses:
##
## Estimate Std. Error t value Pr(>|t|)
## Metalimnion - Epilimnion == 0 -0.45881 0.38370 -1.196 0.6103
## PML - Epilimnion == 0 -0.18330 0.38074 -0.481 0.9600
## Hypolimnion - Epilimnion == 0 -0.54594 0.20464 -2.668 0.0352 *
## PML - Metalimnion == 0 0.27550 0.31918 0.863 0.8116
## Hypolimnion - Metalimnion == 0 -0.08713 0.32458 -0.268 0.9926
## Hypolimnion - PML == 0 -0.36263 0.32107 -1.129 0.6530

```

```
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
## (Adjusted p values reported -- single-step method)
```



An interaction effects two-way anova test was run to determine if the interaction among lake name and depth is significant. The assumptions are that each variable had been taken independently of the other, that the data was taken from a normally distributed population, and that the variances in each group are equal. From Figure 1, the data shown is not normally distributed, which thus violates the assumption of normality. Further, a Shapiro-Wilkes test was run to evaluate whether the dissolved organic carbon data is well approximated by a normal distribution. The Shapiro-Wilkes test showed that the data is not well approximated by a normal distribution ($p < 2.2e-16$). A Bartlett test was run on dissolved organic carbon, lake name, and depth to see if the variances were equal or different. The Bartlett test had a p-value less than 0.05, thus the null hypothesis is rejected and the alternate hypothesis that at least two of the variances are not equal.

From the results, the p-value for depth:Lake.Name is less than 0.05 (p-value = $<2.e16$), thus indicating that the interaction between these terms is significant. Additionally the main effect, dissolved organic carbon, is significant.

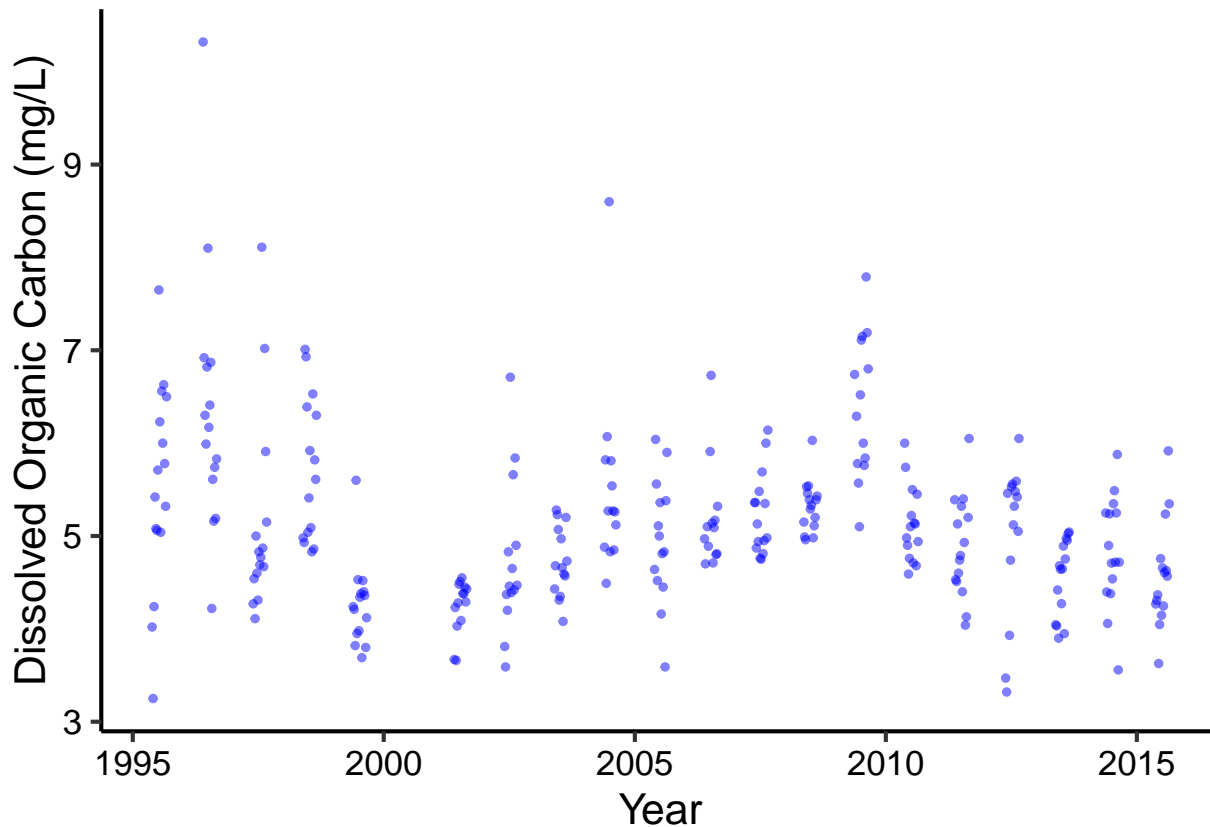
A non-parametric Post-Hoc Tukey test was run to determine the pairwise differences for the interaction since the interaction was significant. Pairs are in the same group if the p-value is greater than 0.05. From the Tukey test, a majority of the means of XXXXXXXXXXXXXXX

A Mann-Kendall test was run to determine if there is a monotonic trend in dissolved organic

carbon in Peter, Paul, and West Long lakes over time. These lakes were chosen based off of the Figure 7 which shows which lakes were monitored continuously over time. The hypolimnion was chosen because organic carbon can come from decomposed animals and plants in a lake which could settle at the bottom of the lake, or the hypolimnion.

```
##
## Mann-Kendall trend test
##
## data: carbon.paul2$doc
## z = -1.4088, n = 291, p-value = 0.1589
## alternative hypothesis: true S is not equal to 0
## sample estimates:
##          S          varS          tau
## -2.338000e+03  2.751939e+06 -5.547057e-02
```

The Mann-Kendall test from Paul Lake shows that there is no trend in the data since the p-value is greater than 0.05 (p-value = 0.1589).



```
##
## Mann-Kendall trend test
##
## data: carbon.peter2$doc
## z = 4.1173, n = 289, p-value = 3.833e-05
## alternative hypothesis: true S is not equal to 0
```

```

## sample estimates:
##           S           varS           tau
## 6.761000e+03 2.695648e+06 1.626943e-01

##
## Pettitt's test for single change-point detection
##
## data: carbon.peter2$doc
## U* = 9629, p-value = 2.119e-10
## alternative hypothesis: two.sided
## sample estimates:
## probable change point at time K
##                               167

##
## Mann-Kendall trend test
##
## data: carbon.peter2$doc[1:166]
## z = -1.8351, n = 166, p-value = 0.0665
## alternative hypothesis: true S is not equal to 0
## sample estimates:
##           S           varS           tau
## -1.315000e+03 5.127363e+05 -9.621737e-02

##
## Mann-Kendall trend test
##
## data: carbon.peter2$doc[167:289]
## z = -3.1, n = 123, p-value = 0.001935
## alternative hypothesis: true S is not equal to 0
## sample estimates:
##           S           varS           tau
## -1419.000000 209236.333333 -0.189301

##
## Pettitt's test for single change-point detection
##
## data: carbon.peter2$doc[167:289]
## U* = 1578, p-value = 0.0006955
## alternative hypothesis: two.sided
## sample estimates:
## probable change point at time K
##                               34

##
## Mann-Kendall trend test
##

```

```

## data: carbon.peter2$doc[167:200]
## z = 3.7815, n = 34, p-value = 0.0001559
## alternative hypothesis: true S is not equal to 0
## sample estimates:
##          S          varS          tau
## 256.000000 4547.333333    0.457553

##
## Mann-Kendall trend test
##
## data: carbon.peter2$doc[201:289]
## z = -0.34022, n = 89, p-value = 0.7337
## alternative hypothesis: true S is not equal to 0
## sample estimates:
##          S          varS          tau
## -97.000000 79620.333333   -0.024786

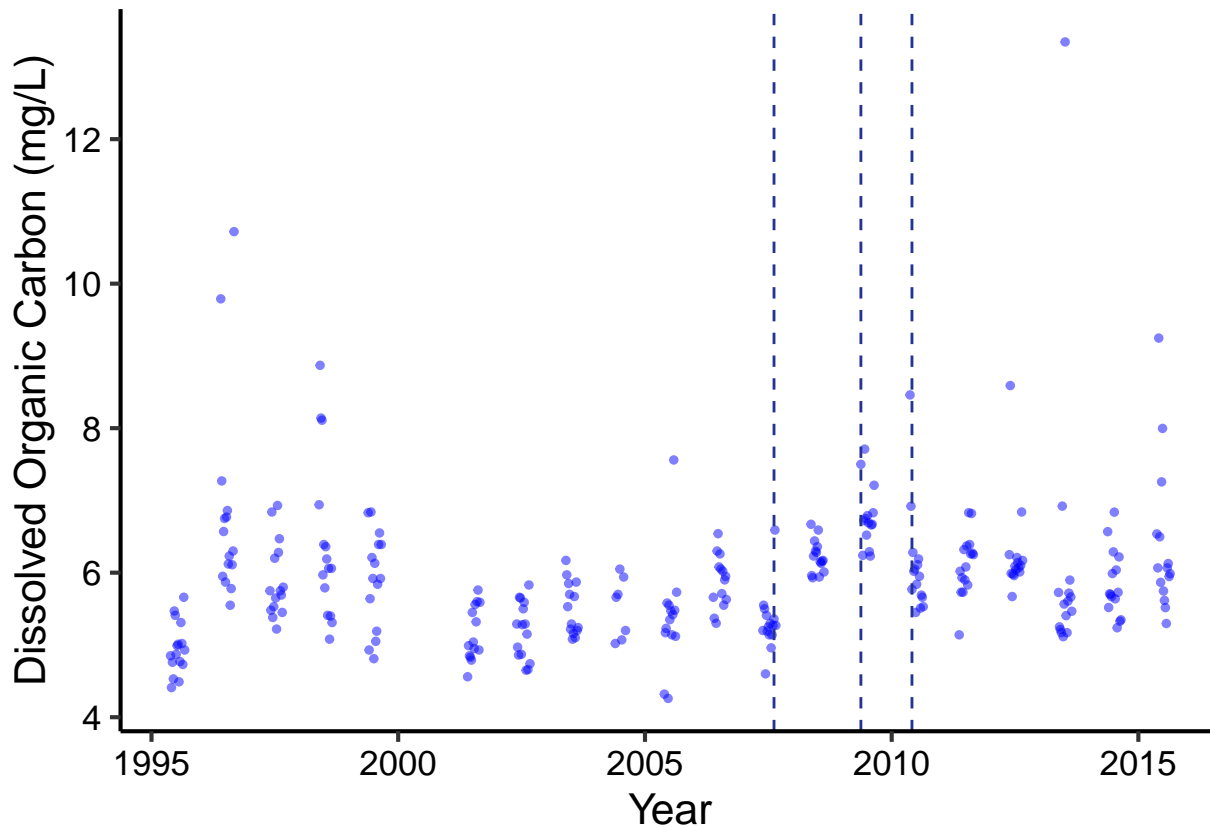
##
## Pettitt's test for single change-point detection
##
## data: carbon.peter2$doc[167:200]
## U* = 238, p-value = 0.0004497
## alternative hypothesis: two.sided
## sample estimates:
## probable change point at time K
##                                18

##
## Mann-Kendall trend test
##
## data: carbon.peter2$doc[167:184]
## z = 0, n = 18, p-value = 1
## alternative hypothesis: true S is not equal to 0
## sample estimates:
##      S varS tau
##      0 696  0

##
## Mann-Kendall trend test
##
## data: carbon.peter2$doc[185:200]
## z = 0.76538, n = 16, p-value = 0.444
## alternative hypothesis: true S is not equal to 0
## sample estimates:
##          S          varS          tau
## 18.0000 493.3333    0.1500

```

The Mann-Kendall test for Peter Lake detected several trends in the data and the pettitt tests detected several change points. The changepoints are visible on ??.



```
#Mann-Kendall tests and pettitt tests on West Long Lake to detect trends
mk.test(carbon.west2$doc)
```

```
##
## Mann-Kendall trend test
##
## data: carbon.west2$doc
## z = -0.31518, n = 102, p-value = 0.7526
## alternative hypothesis: true S is not equal to 0
## sample estimates:
##          S          varS          tau
## -1.100000e+02  1.196027e+05 -2.138624e-02
```

```
pettitt.test(carbon.west2$doc) #changepoint at 60
```

```
##
## Pettitt's test for single change-point detection
##
## data: carbon.west2$doc
## U* = 1013, p-value = 0.006394
## alternative hypothesis: two.sided
```

```

## sample estimates:
## probable change point at time K
##                                     60
mk.test(carbon.west2$doc[1:59]) #trend detected

##
## Mann-Kendall trend test
##
## data: carbon.west2$doc[1:59]
## z = 2.4917, n = 59, p-value = 0.01271
## alternative hypothesis: true S is not equal to 0
## sample estimates:
##           S           varS           tau
## 3.820000e+02 2.338067e+04 2.234572e-01
mk.test(carbon.west2$doc[60:102]) #trend detected

##
## Mann-Kendall trend test
##
## data: carbon.west2$doc[60:102]
## z = 4.8254, n = 43, p-value = 1.398e-06
## alternative hypothesis: true S is not equal to 0
## sample estimates:
##           S           varS           tau
## 462.0000000 9127.3333333 0.5124799
#pettitt test
pettitt.test(carbon.west2$doc[1:59]) #change point at 16 + 1 = 17

##
## Pettitt's test for single change-point detection
##
## data: carbon.west2$doc[1:59]
## U* = 587, p-value = 0.0001005
## alternative hypothesis: two.sided
## sample estimates:
## probable change point at time K
##                                     16
pettitt.test(carbon.west2$doc[60:102]) #change point at 23+60 = 83

##
## Pettitt's test for single change-point detection
##
## data: carbon.west2$doc[60:102]
## U* = 417, p-value = 5.389e-06

```

```

## alternative hypothesis: two.sided
## sample estimates:
## probable change point at time K
##                                     23

#mk.test on carbon west
mk.test(carbon.west2$doc[1:16]) #no trend

##
## Mann-Kendall trend test
##
## data: carbon.west2$doc[1:16]
## z = 0.22511, n = 16, p-value = 0.8219
## alternative hypothesis: true S is not equal to 0
## sample estimates:
##      S      varS      tau
## 6.0000 493.3333  0.0500

mk.test(carbon.west2$doc[17:59]) #trend detected

##
## Mann-Kendall trend test
##
## data: carbon.west2$doc[17:59]
## z = -2.198, n = 43, p-value = 0.02795
## alternative hypothesis: true S is not equal to 0
## sample estimates:
##      S      varS      tau
## -211.0000000 9128.3333333 -0.2339248

mk.test(carbon.west2$doc[60:82]) #no trend

##
## Mann-Kendall trend test
##
## data: carbon.west2$doc[60:82]
## z = -0.55481, n = 23, p-value = 0.579
## alternative hypothesis: true S is not equal to 0
## sample estimates:
##      S      varS      tau
## -22.0000000 1432.6666667 -0.08712888

mk.test(carbon.west2$doc[83:102]) #trend detected

##
## Mann-Kendall trend test
##
## data: carbon.west2$doc[83:102]

```

```
## z = 2.1425, n = 20, p-value = 0.03216
## alternative hypothesis: true S is not equal to 0
## sample estimates:
##           S           varS           tau
## 67.0000000 949.0000000 0.3535632

#pettitt test on carbon west
pettitt.test(carbon.west2$doc[17:59]) #change point at 32 + 17 = 49
```

```
##
## Pettitt's test for single change-point detection
##
## data: carbon.west2$doc[17:59]
## U* = 212, p-value = 0.0727
## alternative hypothesis: two.sided
## sample estimates:
## probable change point at time K
##                               32
```

```
pettitt.test(carbon.west2$doc[83:102]) #change point at 7 + 83 = 90
```

```
##
## Pettitt's test for single change-point detection
##
## data: carbon.west2$doc[83:102]
## U* = 75, p-value = 0.03598
## alternative hypothesis: two.sided
## sample estimates:
## probable change point at time K
##                               7
```

```
#mk.test on West Long Lake
mk.test(carbon.west2$doc[17:48]) #no trend
```

```
##
## Mann-Kendall trend test
##
## data: carbon.west2$doc[17:48]
## z = -0.30819, n = 32, p-value = 0.7579
## alternative hypothesis: true S is not equal to 0
## sample estimates:
##           S           varS           tau
## -20.00000000 3800.66666667 -0.04040412
```

```
mk.test(carbon.west2$doc[49:59]) #no trend
```

```
##
## Mann-Kendall trend test
```

```
##
## data: carbon.west2$doc[49:59]
## z = 1.557, n = 11, p-value = 0.1195
## alternative hypothesis: true S is not equal to 0
## sample estimates:
##          S          varS          tau
## 21.0000000 165.0000000  0.3818182
```

```
mk.test(carbon.west2$doc[83:89]) #trend detected
```

```
##
## Mann-Kendall trend test
##
## data: carbon.west2$doc[83:89]
## z = -2.2787, n = 7, p-value = 0.02269
## alternative hypothesis: true S is not equal to 0
## sample estimates:
##          S          varS          tau
## -16.0000000 43.3333333 -0.7807201
```

```
mk.test(carbon.west2$doc[90:102]) #no trend detected
```

```
##
## Mann-Kendall trend test
##
## data: carbon.west2$doc[90:102]
## z = 0.42706, n = 13, p-value = 0.6693
## alternative hypothesis: true S is not equal to 0
## sample estimates:
##          S          varS          tau
##  8.0000000 268.6666667  0.1025641
```

```
#pettitt test on West Long lake
```

```
pettitt.test(carbon.west2$doc[83:89]) #change point at 2+83 = 85
```

```
##
## Pettitt's test for single change-point detection
##
## data: carbon.west2$doc[83:89]
## U* = 10, p-value = 0.4328
## alternative hypothesis: two.sided
## sample estimates:
## probable change point at time K
##                                2
```

```
#mk.test on West Long Lake
```

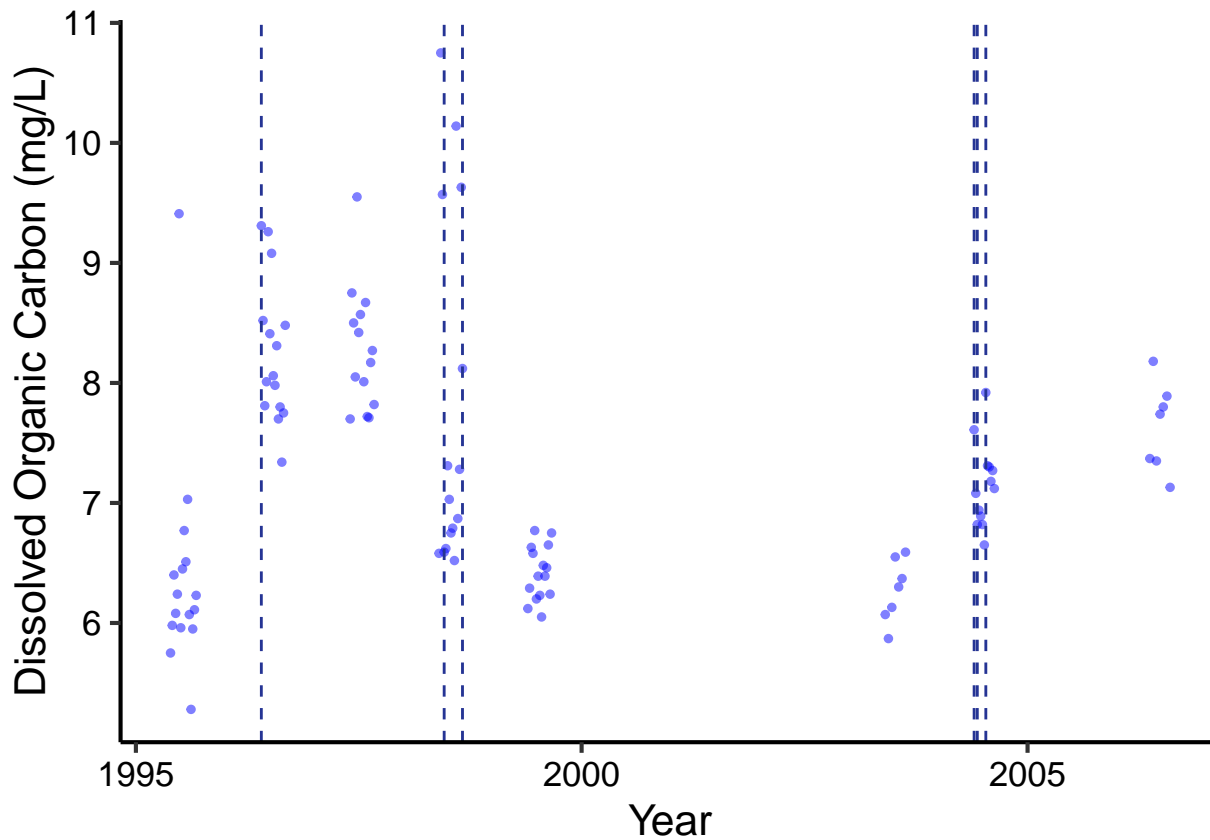
```
#mk.test(carbon.west2$doc[83:84]) #this cannot be run because there must be at least 3
```

```
mk.test(carbon.west2$doc[83:89])
```



```
##
## Mann-Kendall trend test
##
## data: carbon.west2$doc[83:89]
## z = -2.2787, n = 7, p-value = 0.02269
## alternative hypothesis: true S is not equal to 0
## sample estimates:
##          S          varS          tau
## -16.0000000  43.3333333  -0.7807201
```

The Mann-Kendall test for West Long Lake detected several trends in the data and the pettitt tets detected several change points. The changepoints are visible on ??.



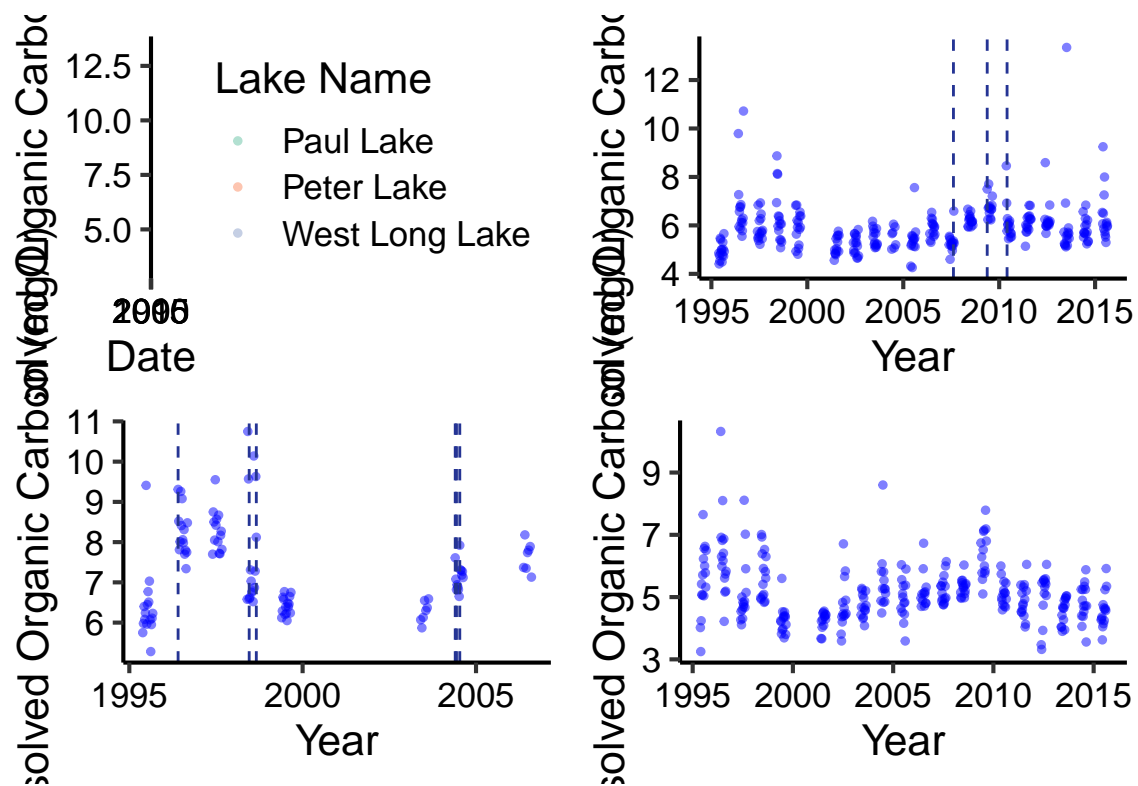


Figure 9: Dissolved organic carbon concentration over time with day number of the year on the x-axis.

5 Summary and Conclusions

The major findings from this analysis show that dissolved organic carbon does not vary by depth, but rather by lake. This is likely due to the fact that each lake has a different depth and catchment area, which can greatly contribute to the amount of dissolved organic carbon found in the lake. The two-way ANOVA with interactions test shows that the interaction between depth and lake name is significant. The post-hoc Tukey test indicates that the interaction between a majority of lakes and depths are significant. From the Mann-Kendall test on dissolved organic carbon in the hypolimnion, Paul lake had no changepoints. This might have to do with the fact that Paul lake has the smallest range of dissolved organic carbon (mg/L) compared to Peter and West Long lakes. ?? shows that Peter lake had three change points. ?? shows that West Long lake had six change points.

Overall, the analyses determined that a seasonal trend between depth and dissolved organic carbon was not possible based off the data available since most of the samples were conducted during the spring and summer months. Because Figure 5 shows the distribution of dissolved organic carbon (mg/L) in each depth layer and there is no clear trend. Although the original research question was to look at the relationship between depth and dissolved organic carbon, the exploratory data analysis showed that there was no relationship. Because there was no relationship between dissolved organic carbon and depth, the focus of this study had to change. Each lake has a different depth, so instead of running a generalized linear model, a two-way interaction effects anova was run with depth and lake name as the interaction terms.

Figure ____ (daynumber and DOC concentration figure) shows that sampling was only done in the summer, which indicates that it will not be possible to detect a seasonal trend between depth and DOC. Further, Figure __ (qqplot figures) show that the dissolved organic carbon data is not normally distributed, thus leading to the conclusion that a linear model will not be feasible with this data. When the dissolved organic carbon is log transformed as Figure (log transformed qqplot) shows, the data looks more normal than it did when not log transformed. Also, figure (violin plot figure) shows that DOC varies across the different lakes, which leads to the anova test where Lake is included as an interaction with depth. Also, it is apparent from figure (boxplot of depth) that DOC does not increase or decrease with depth; its most likely variable, and thus likely variable amongst lakes.

Peter Lake has a high concentration likely due to the fact that there was an experiment with Peter and Paul lakes, where nutrients were put into the lakes.