Data Final

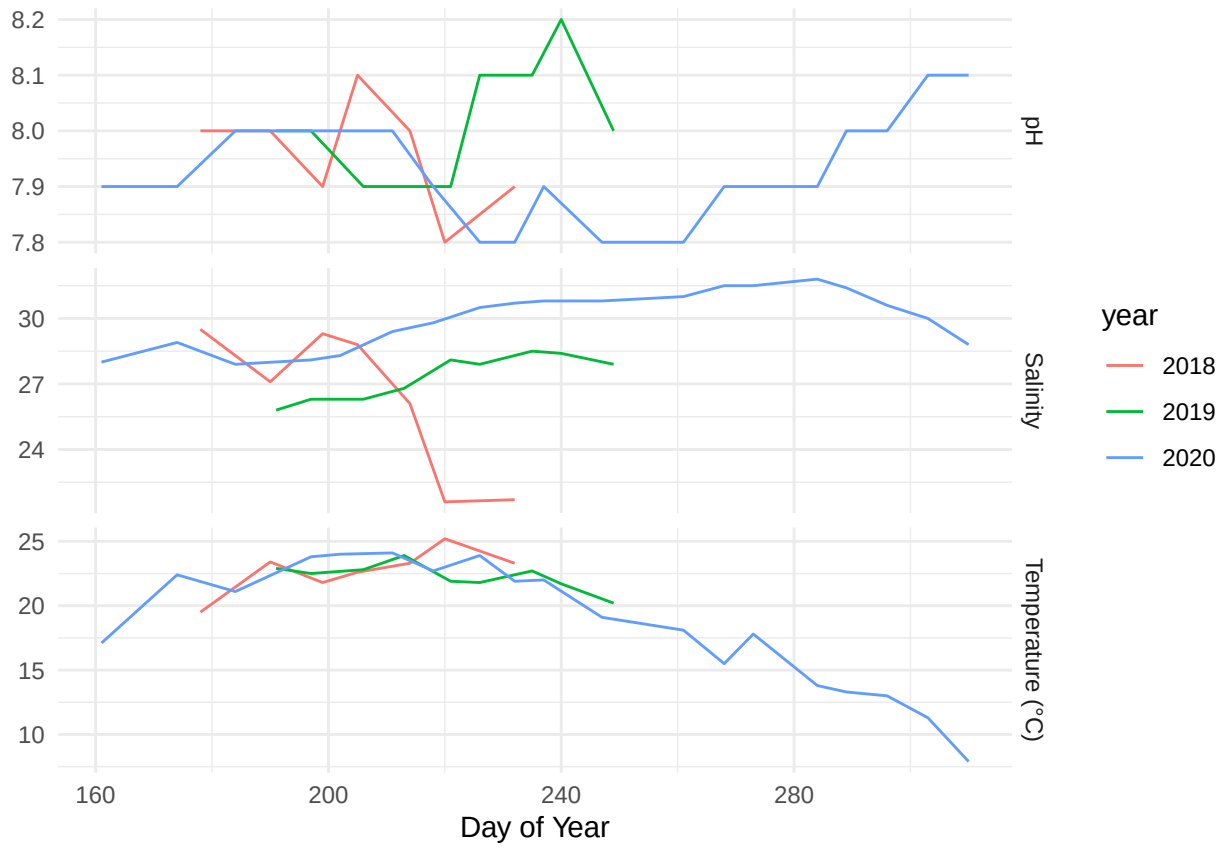
Kaleb

2022-11-22

```
##         Date Site Site_Lat Site_Long         D           V Temp  Sal pH
## 1 2018-06-27   LR 43.07385 -70.90511 118.77679 0.026200764 19.5 29.5  8
## 2 2018-06-27   SQ 43.05933 -70.90730  85.58916 0.008733588 19.5 29.5  8
## 3 2018-06-27   NI 43.06907 -70.86423  94.32275 0.000000000 19.5 29.5  8
## 4 2018-06-27   WP 43.07139 -70.86201  80.65667 0.000000000 19.5 29.5  8
## 5 2018-07-09   LR 43.07385 -70.90511 169.26060 0.000000000 23.4 27.1  8
## 6 2018-07-09   SQ 43.05933 -70.90730  46.55542 0.087300979 23.4 27.1  8
```

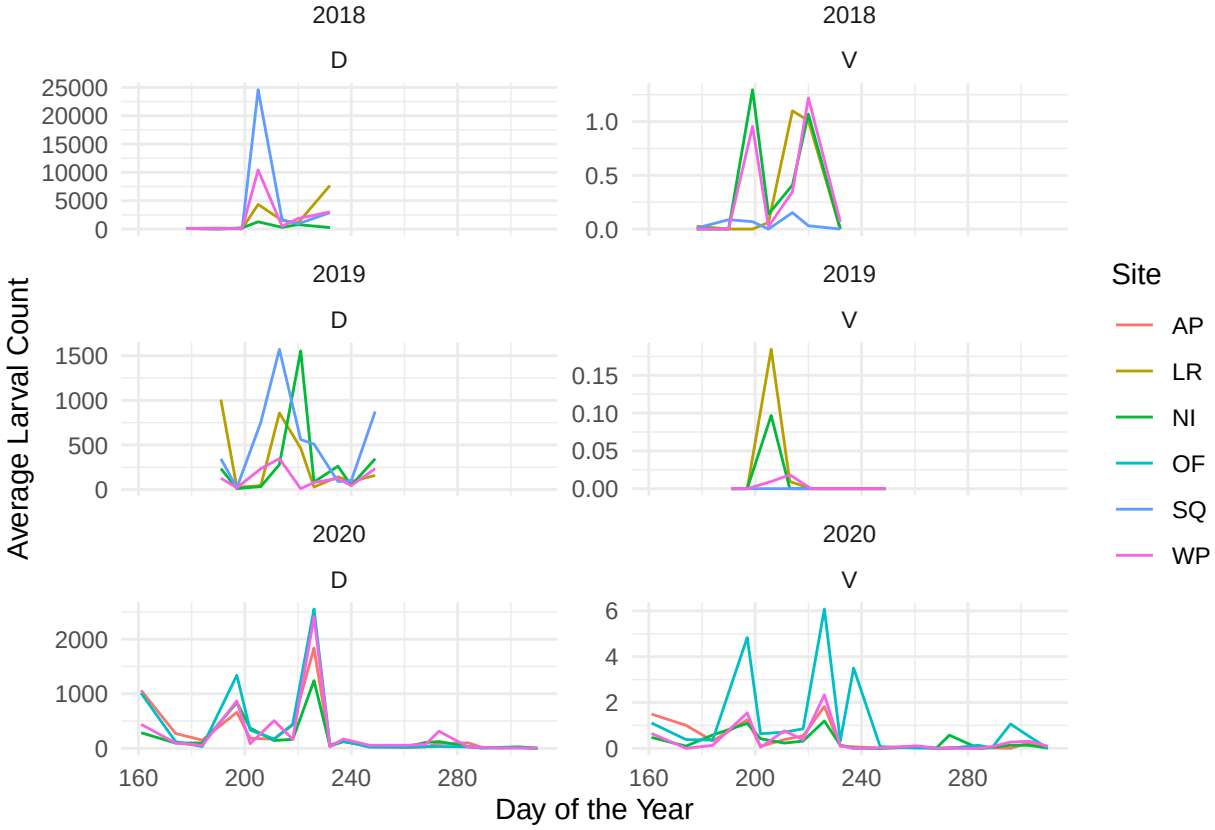
map, may change from leaflet but then i would need to find map of great bay area

physiochemical stuff



larvae type across year and site

```
## # A tibble: 6 x 9
##   Date       Site  Site_Lat Site_Long  Temp   Sal    pH larvalType  avgCount
##   <date>     <fct>    <dbl>     <dbl> <dbl> <dbl> <dbl> <chr>          <dbl>
## 1 2018-06-27 LR        43.1     -70.9  19.5  29.5     8 D            119.
## 2 2018-06-27 LR        43.1     -70.9  19.5  29.5     8 V              0.0262
## 3 2018-06-27 SQ        43.1     -70.9  19.5  29.5     8 D             85.6
## 4 2018-06-27 SQ        43.1     -70.9  19.5  29.5     8 V              0.00873
## 5 2018-06-27 NI        43.1     -70.9  19.5  29.5     8 D             94.3
## 6 2018-06-27 NI        43.1     -70.9  19.5  29.5     8 V              0
```




```
## `summarise()` has grouped output by 'year'. You can override using the
## `.groups` argument.
```

larvalType	2018	2019	2020
D-hinge	2.29e+03	3.25e+02	2.73e+02
Veliger	2.88e-01	8.84e-03	5.32e-01

```
## `summarise()` has grouped output by 'year', 'larvalType'. You can override
## using the `.groups` argument.
```

larvalType	Site	2018	2019	2020
D-hinge				
D-hinge	LR	2144	313	NA
D-hinge	NI	419	316	200
D-hinge	SQ	4319	535	NA
D-hinge	WP	2291	135	283
D-hinge	AP	NA	NA	277
D-hinge	OF	NA	NA	334
Veliger				
Veliger	LR	0.31	0.022	NA
Veliger	NI	0.42	0.011	0.29
Veliger	SQ	0.05	0	NA
Veliger	WP	0.37	0.0031	0.36
Veliger	AP	NA	NA	0.39
Veliger	OF	NA	NA	1.1

ANOVA stuff

```
##              Df    Sum Sq  Mean Sq F value   Pr(>F)
## year          2  89956271 44978136   8.802 0.000258 ***
## Site          5  25737592  5147518   1.007 0.416065
## Residuals   132 674555335  5110268
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

term	df	sumsq	meansq	statistic	p.value
year	2	89956271	44978136	8.801522	0.0002581
Site	5	25737592	5147518	1.007289	0.4160648
Residuals	132	674555335	5110268	NA	NA

```
##              Df Sum Sq Mean Sq F value  Pr(>F)
## year          2   6.81   3.403   5.983 0.00326 **
## Site          5   8.09   1.619   2.847 0.01786 *
## Residuals   132  75.08   0.569
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

term	df	sumsq	meansq	statistic	p.value
year	2	6.806097	3.4030483	5.983259	0.0032555
Site	5	8.094962	1.6189925	2.846522	0.0178619
Residuals	132	75.076544	0.5687617	NA	NA