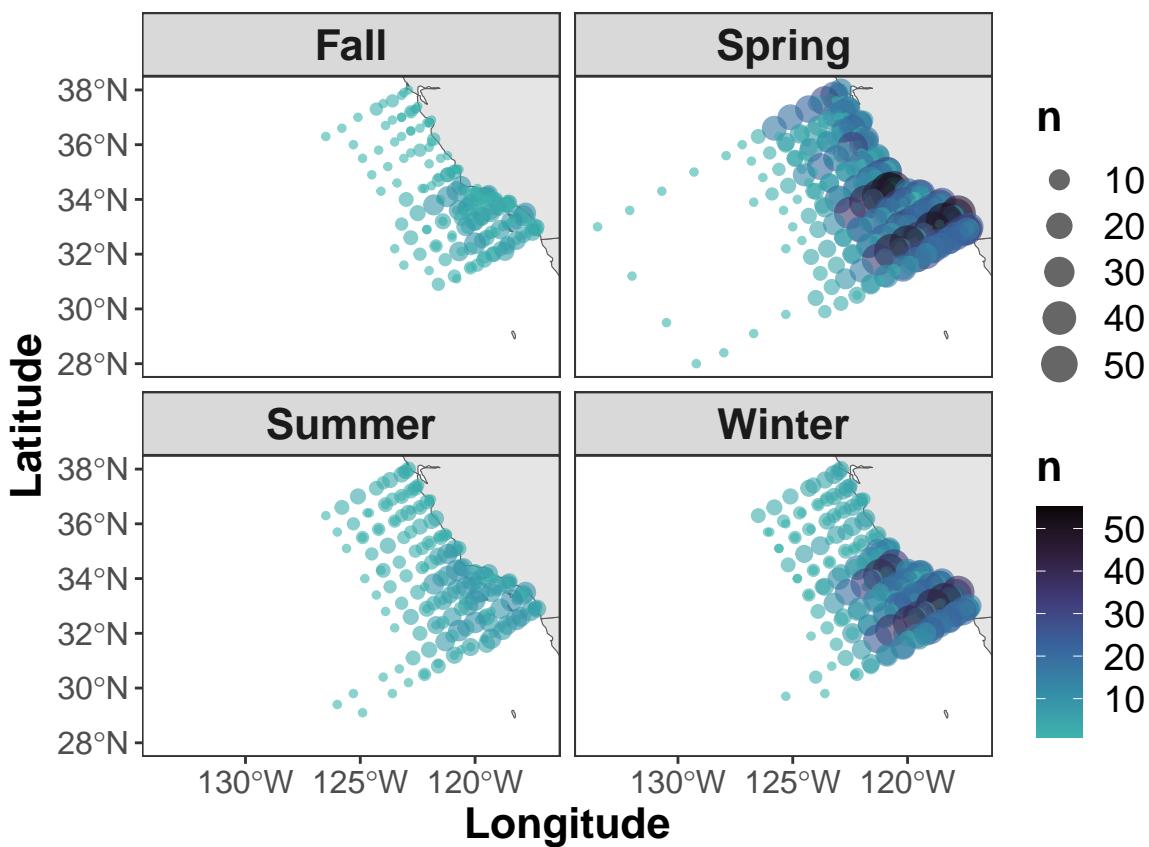


Species Index Mapper

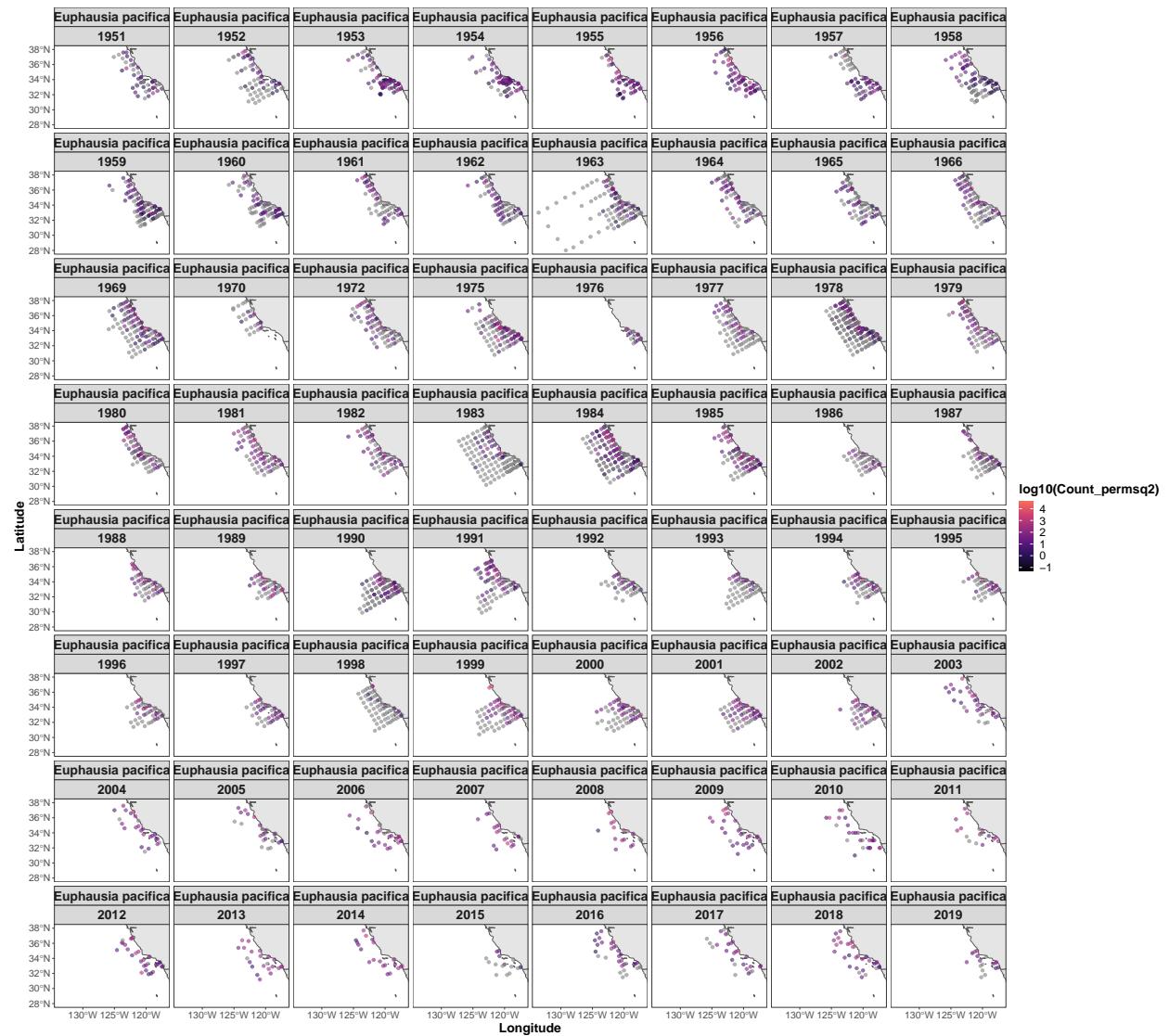
Zack Gold

2024-05-06

Map of Samples



Abundance of Euphausia pacifica over Time

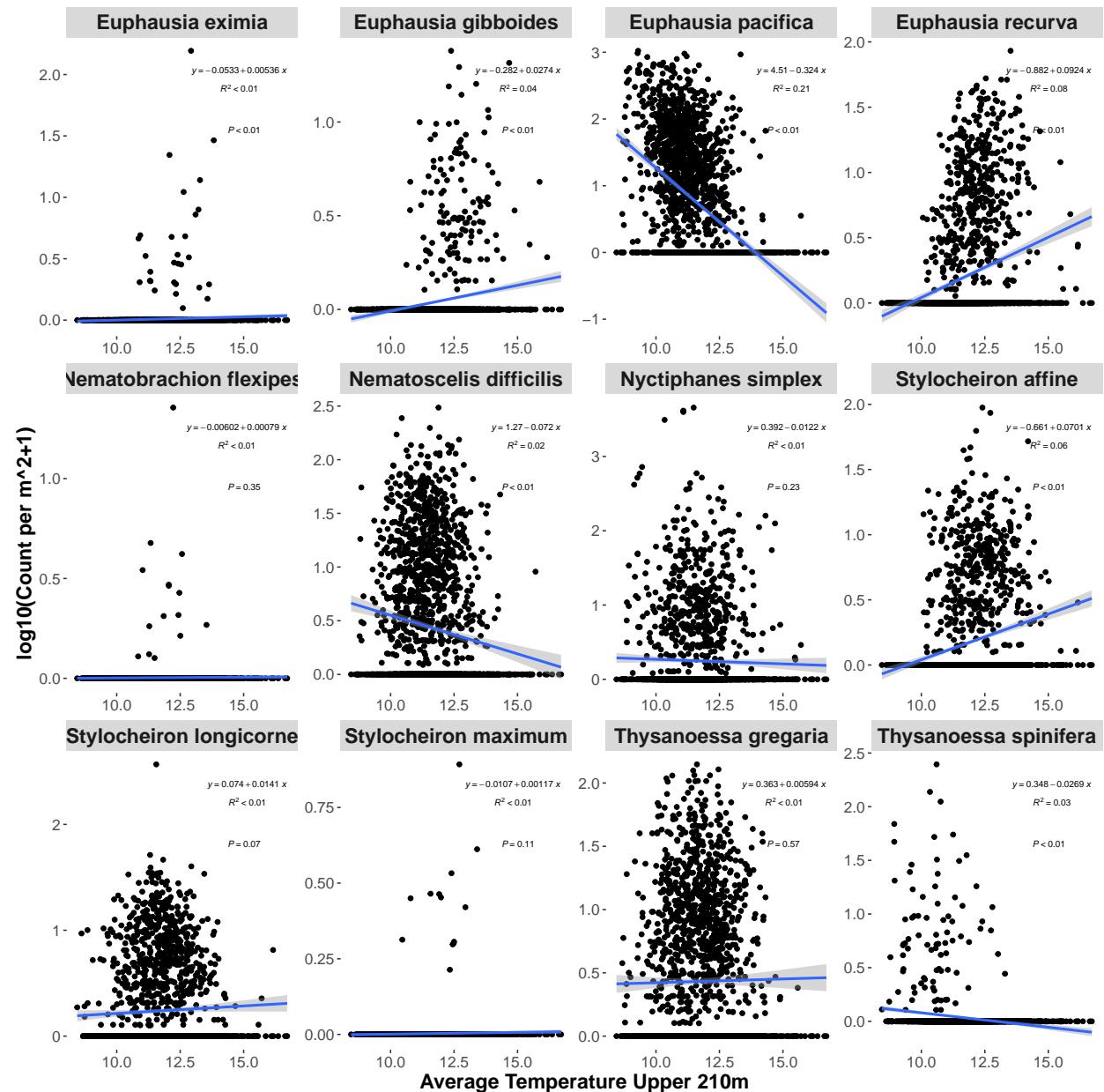


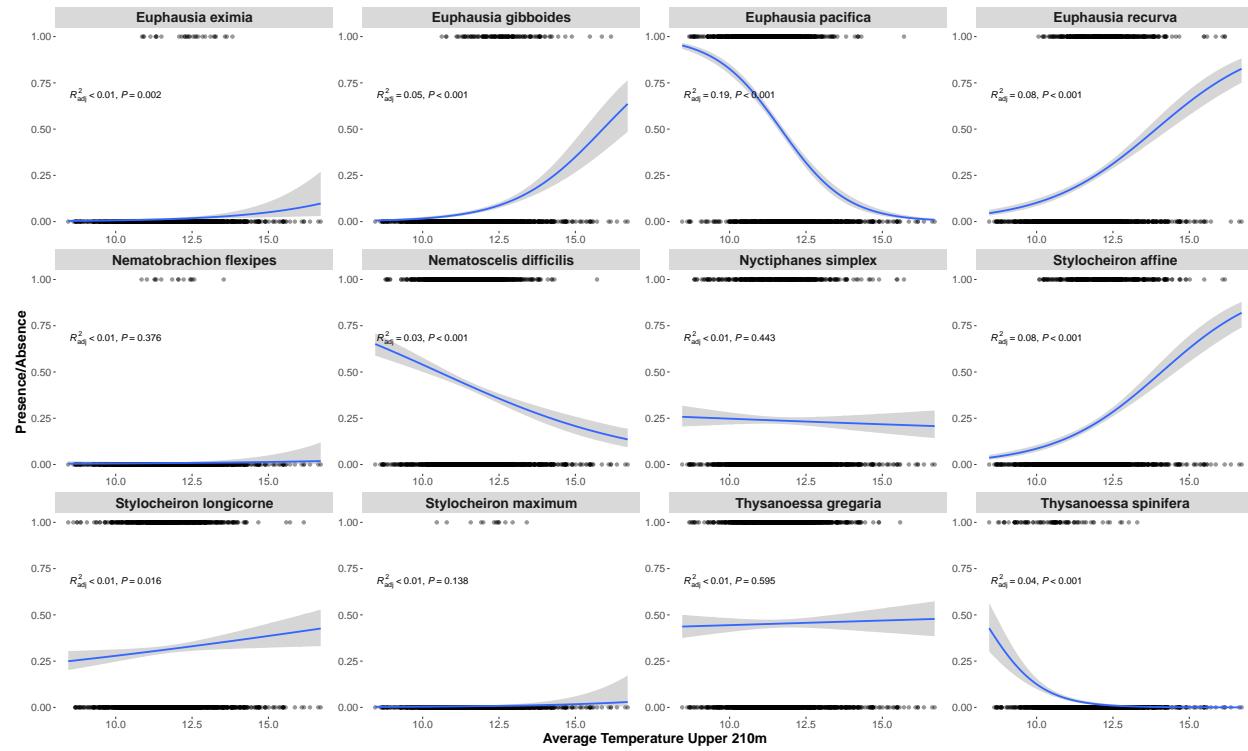
Most Detected Taxa

ID_Microscopy	n
<i>Euphausia pacifica</i>	21182
<i>Nematoscelis difficilis</i>	20967
<i>Thysanoessa gregaria</i>	12294
<i>Nyctiphanes simplex</i>	10117
<i>Stylocheiron longicorne</i>	7717
<i>Euphausia recurva</i>	6338
<i>Euphausia gibboides</i>	4430
<i>Stylocheiron affine</i>	4392
<i>Thysanoessa spinifera</i>	3579
<i>Stylocheiron maximum</i>	2567
<i>Euphausia eximia</i>	1311
<i>Nematobrachion flexipes</i>	1179

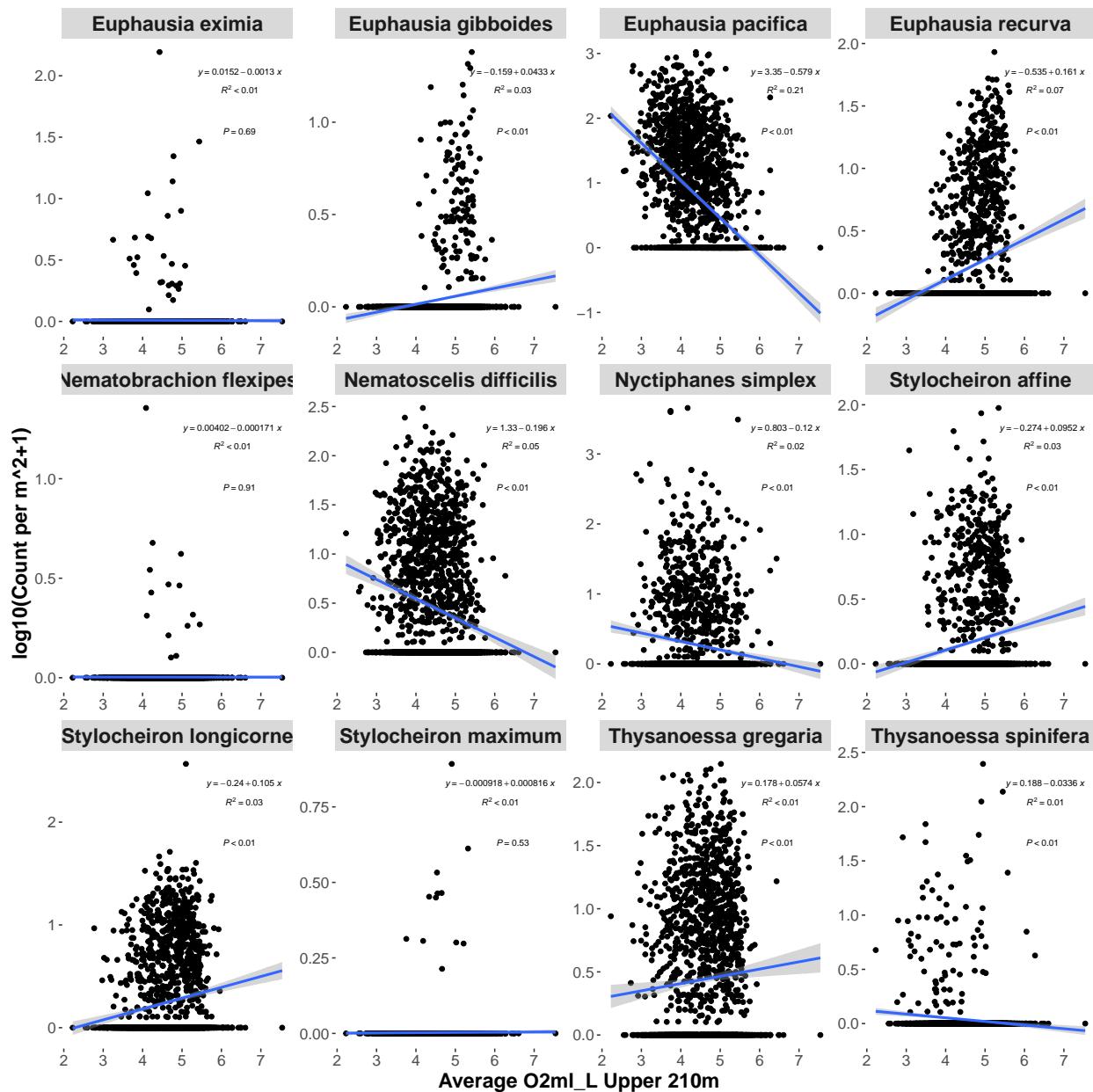
Abundance

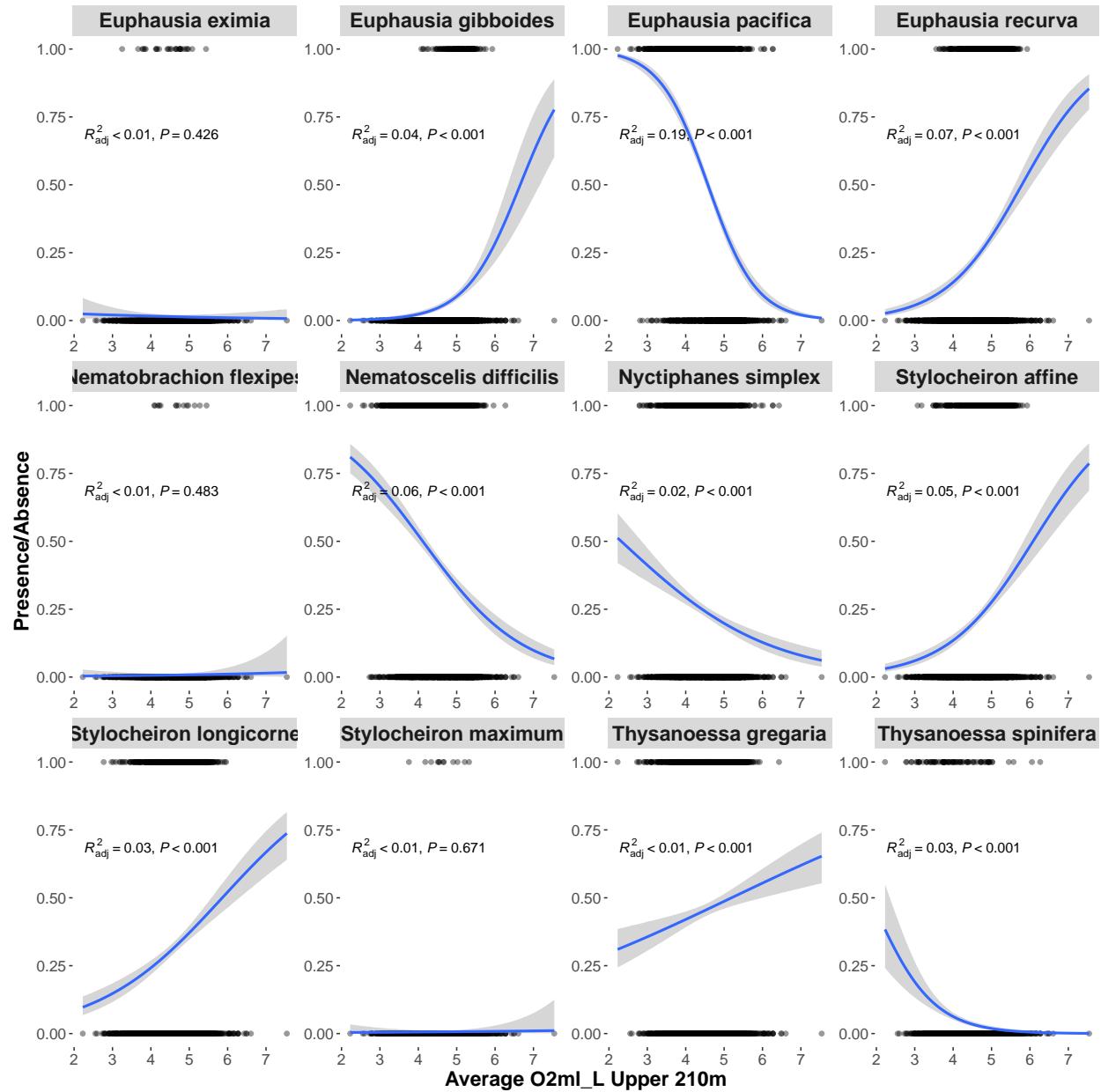
Temperature



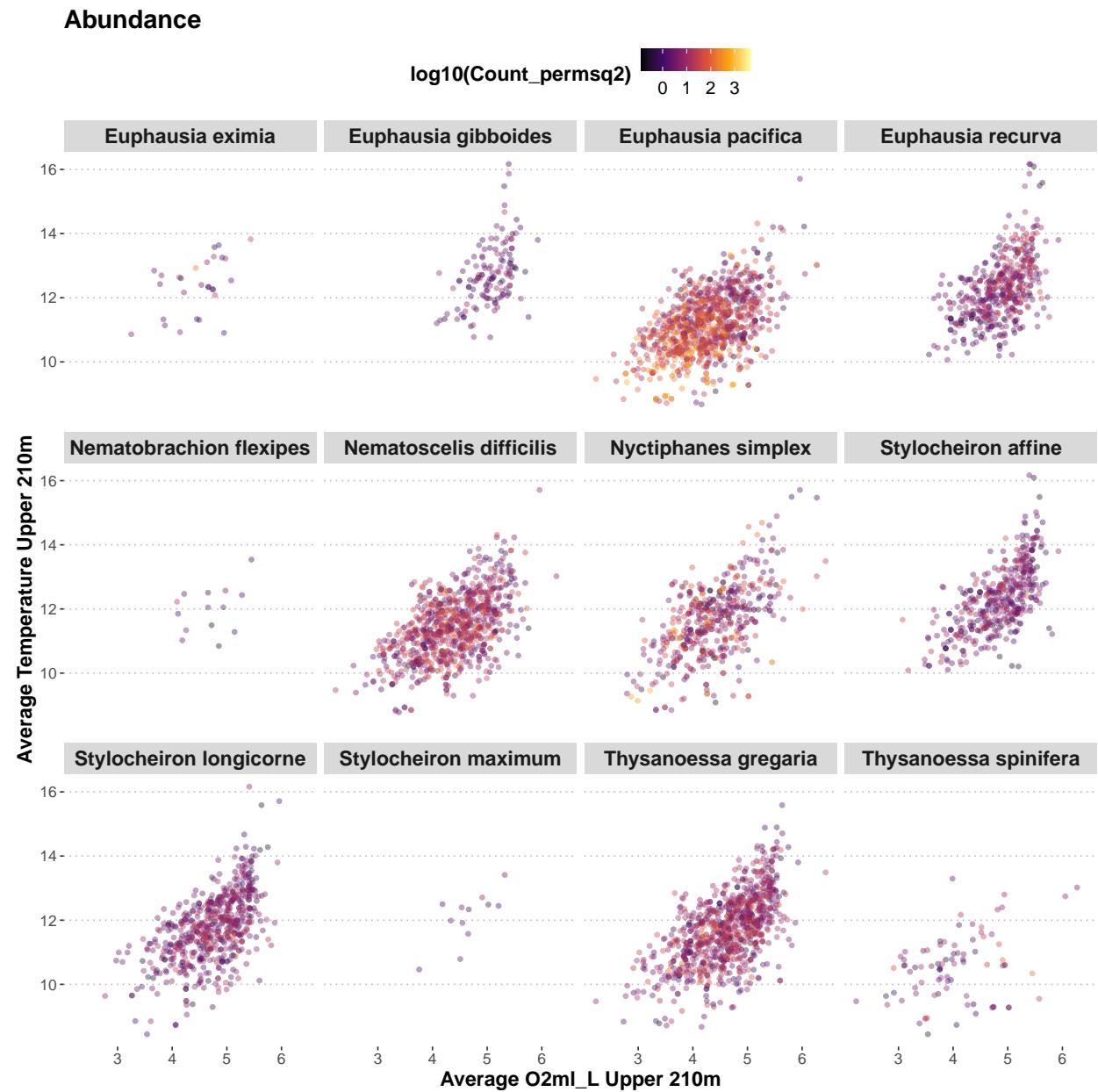


Oxygen

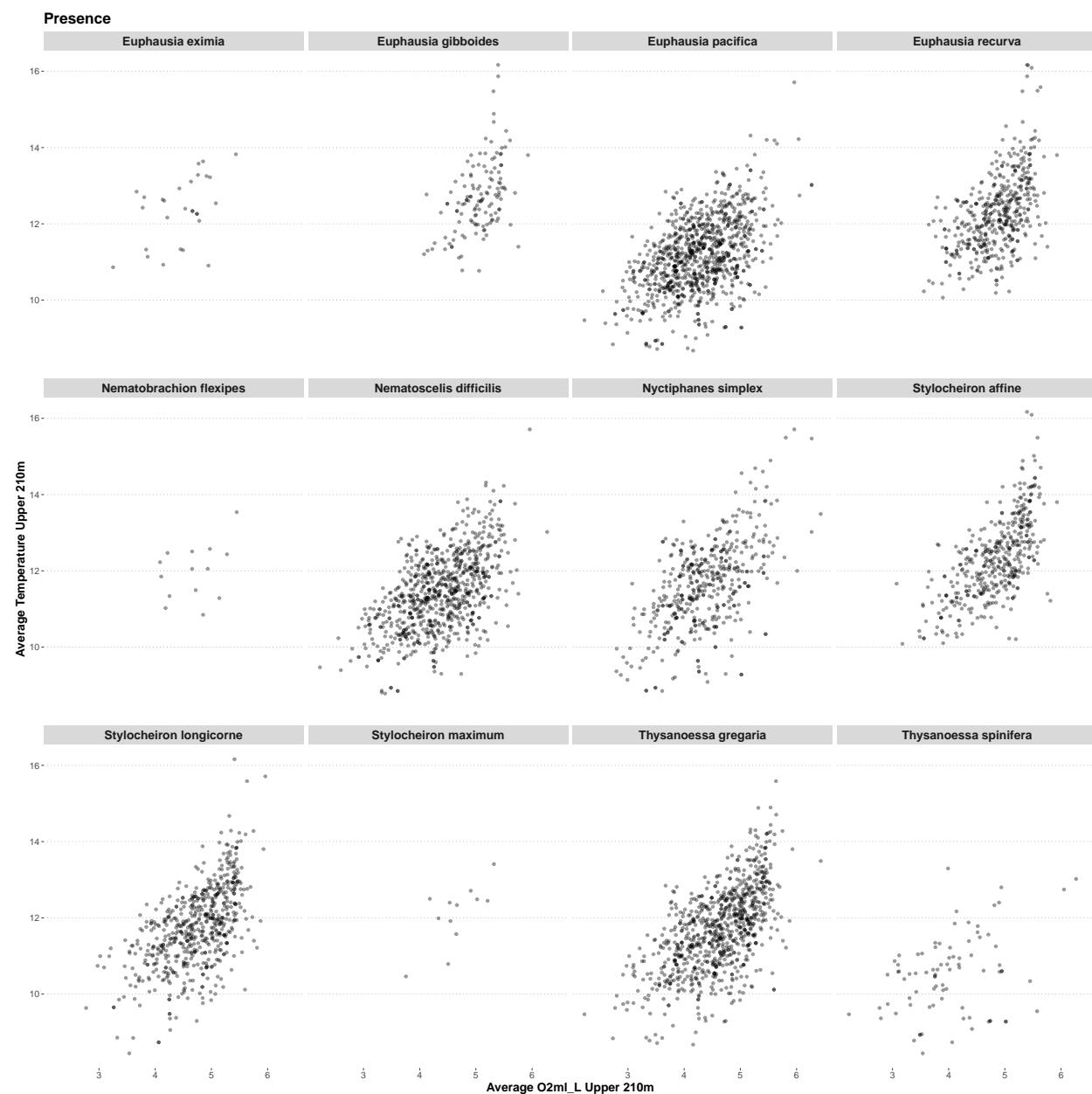




Abundance Temp + O2 Envelope

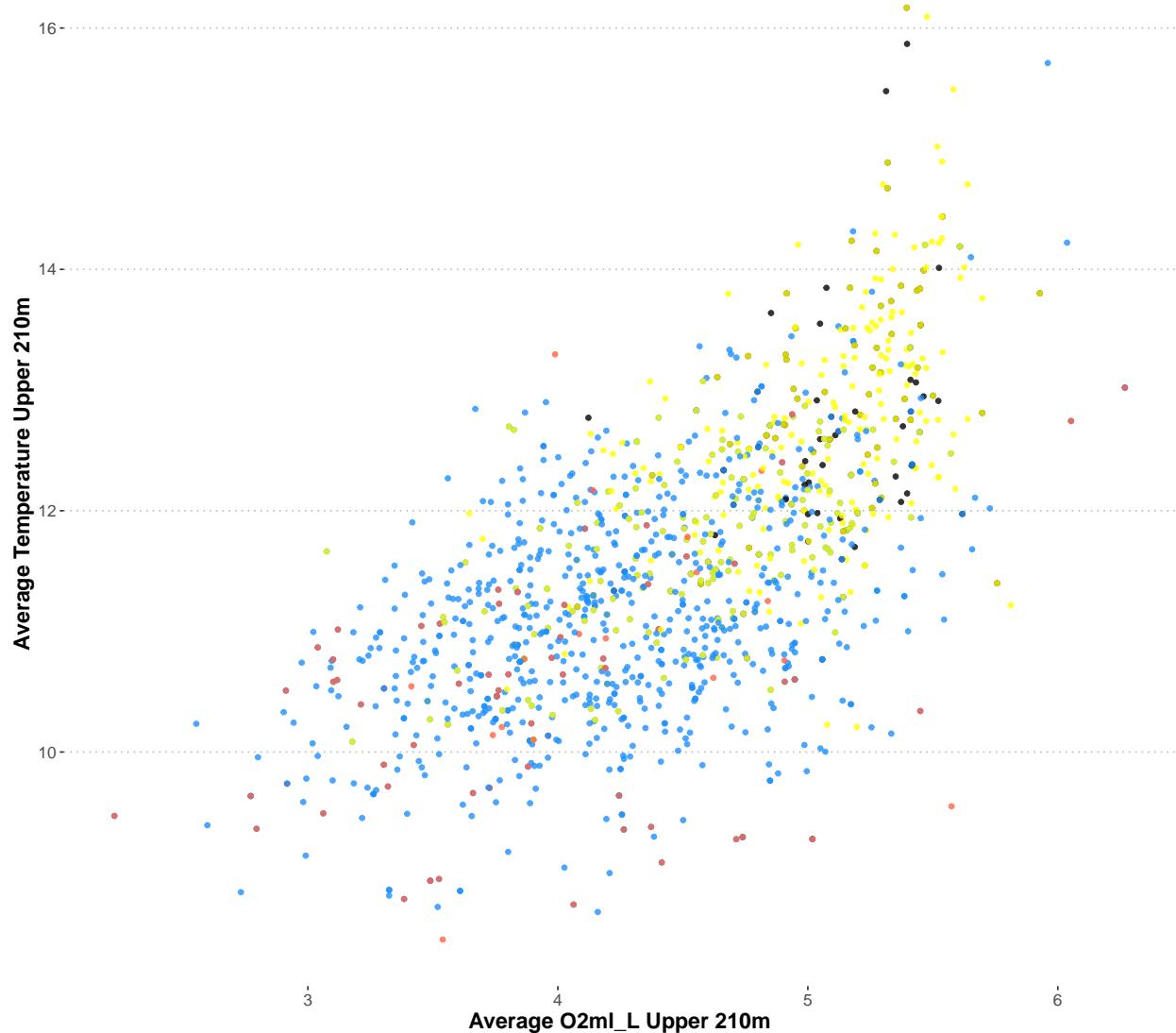


Detection Temp + O₂ Envelope



Presence

ID_Microscopy • Euphausia gibboides • Euphausia pacifica • Stylocheiron affine • Thysanoessa spinifera



Site - Binomial vs. SST

Binomial | Station Run models

```
## Generalized linear mixed model fit by maximum likelihood (Laplace
## Approximation) [glmerMod]
## Family: binomial ( logit )
## Formula: PA ~ (1 | ID_Microscopy) + mean_temp * mean_02ml_L
## Data: pa_adult_data
##
##      AIC      BIC  logLik deviance df.resid
## 18626.3 18666.5 -9308.2 18616.3    22711
##
## Scaled residuals:
##      Min      1Q  Median      3Q     Max
## -1.2370 -0.5766 -0.2175 -0.0823 12.9409
##
## Random effects:
## Groups      Name      Variance Std.Dev.
## ID_Microscopy (Intercept) 3.147    1.774
## Number of obs: 22716, groups: ID_Microscopy, 12
##
## Fixed effects:
##                  Estimate Std. Error z value Pr(>|z|)
## (Intercept) -11.19166   1.30134 -8.600 < 2e-16 ***
## mean_temp     0.82952   0.10671  7.774 7.63e-15 ***
## mean_02ml_L    1.89486   0.25002  7.579 3.49e-14 ***
## mean_temp:mean_02ml_L -0.17096   0.02177 -7.851 4.12e-15 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Correlation of Fixed Effects:
##          (Intr) mn_tm m_02_L
## mean_temp -0.912
## mean_02ml_L -0.902  0.959
## mn_tm:m_02_L  0.908 -0.983 -0.990
## optimizer (Nelder_Mead) convergence code: 0 (OK)
## Model failed to converge with max|grad| = 0.00455353 (tol = 0.002, component 1)
```

Look at the models

Example Euphausia pacifica

