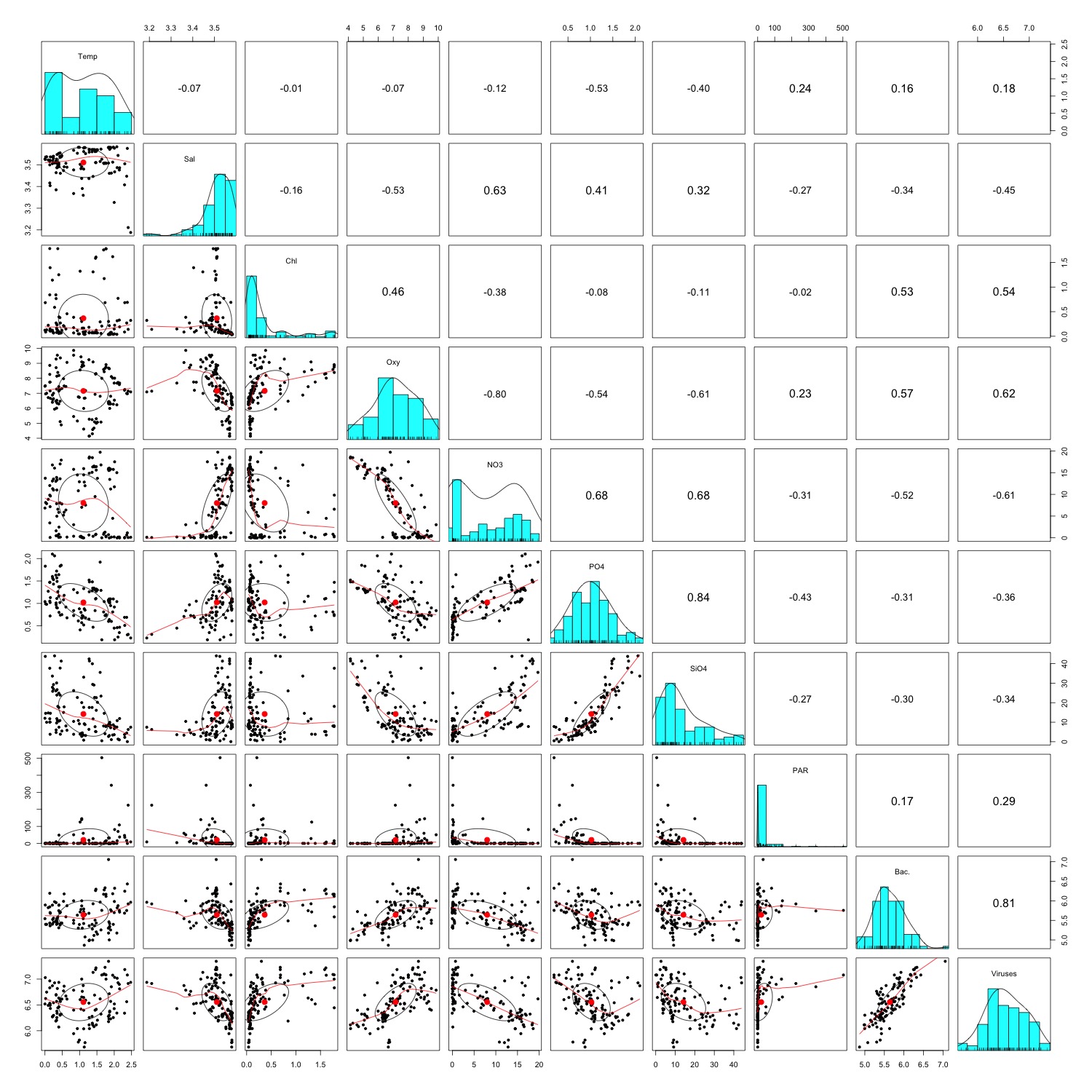
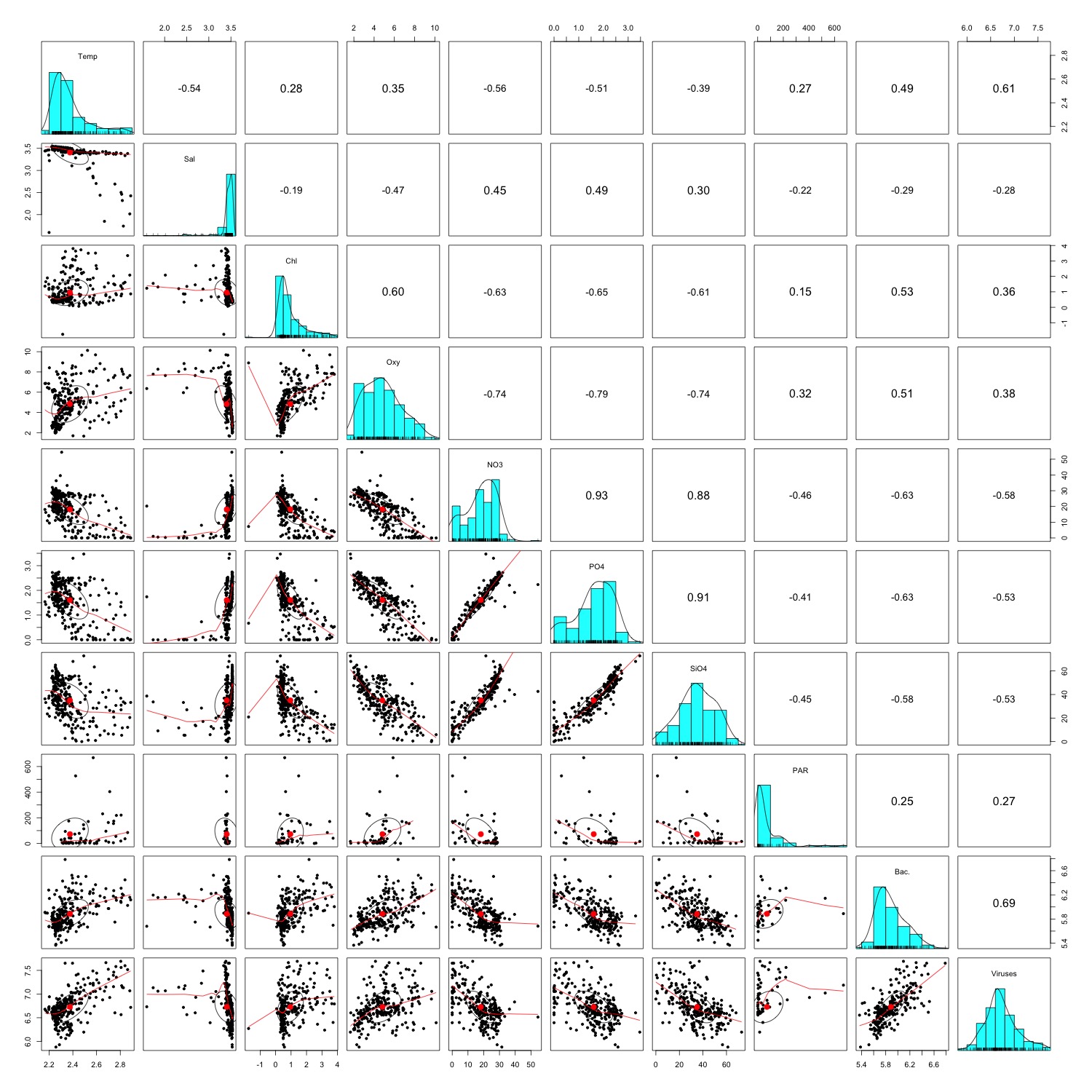
Supplementary Materials: Nutrients and Other Environmental Factors Influence Virus Abundances across Oxic and Hypoxic Marine Environments

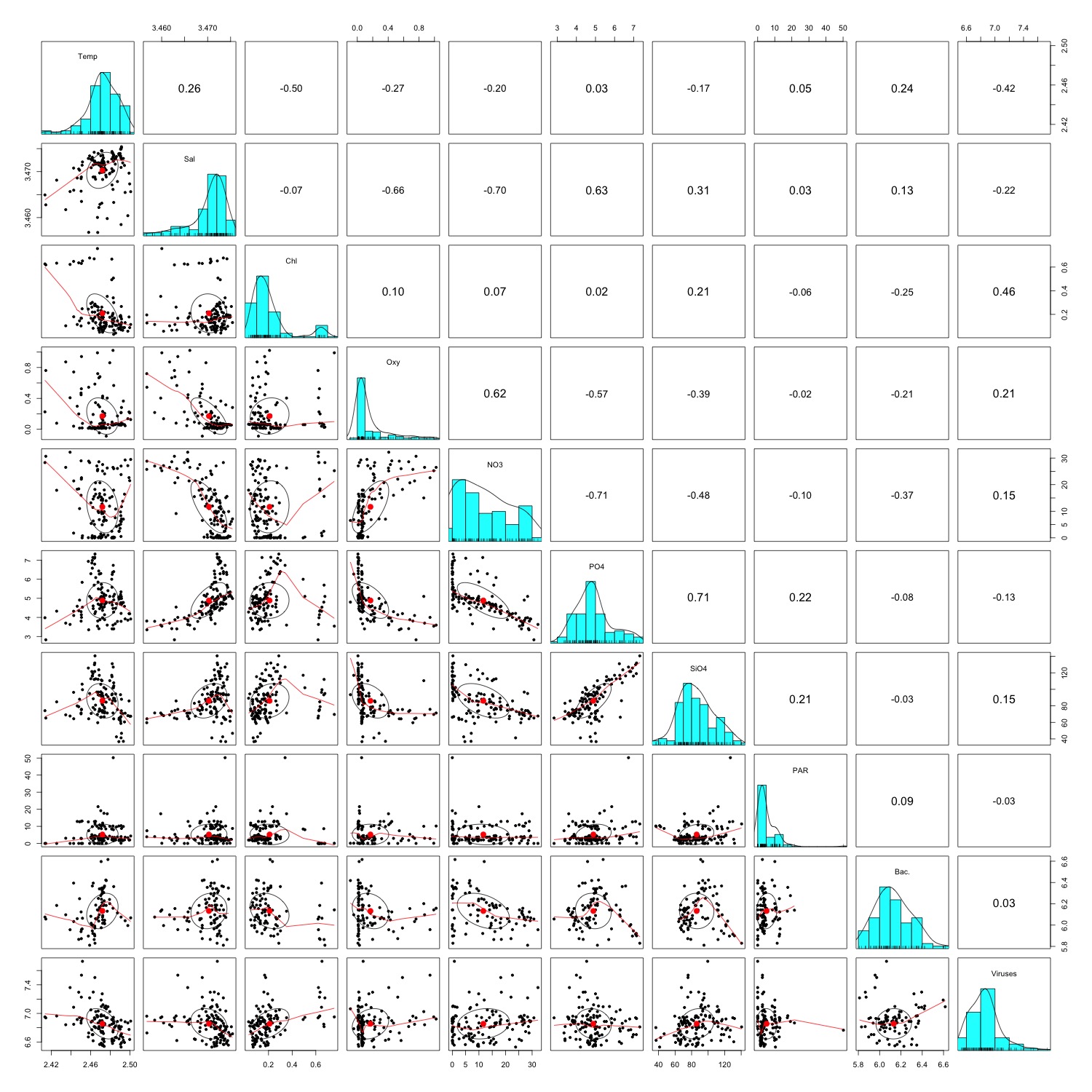
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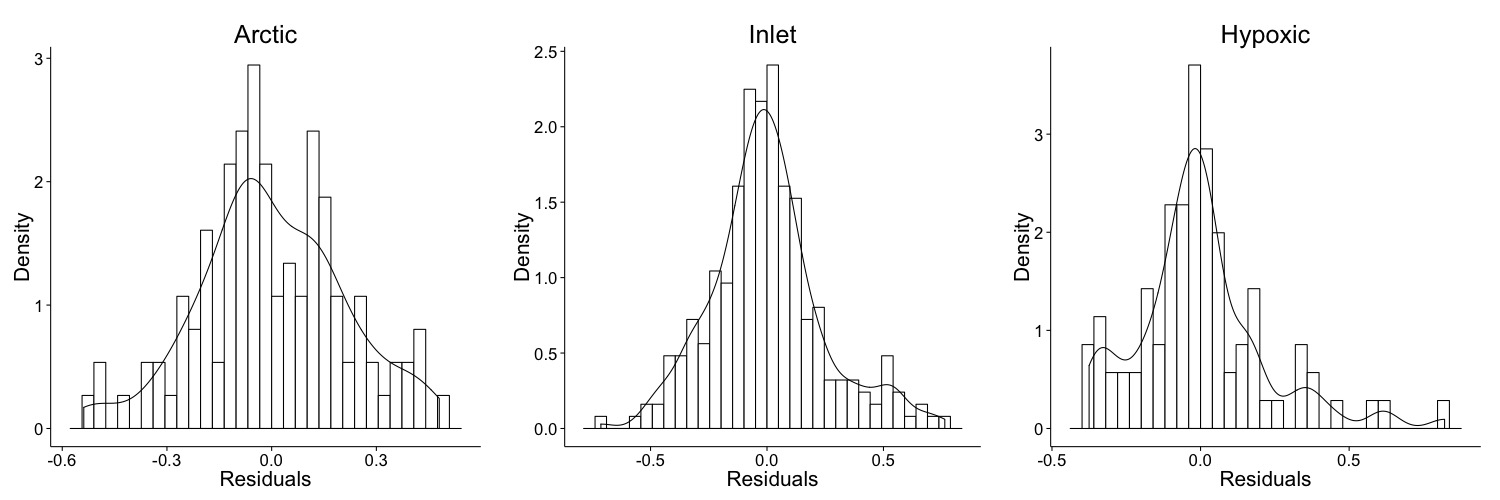
**Figure S1.** Data distribution and direct correlations (Pearson’s) of data in the Arctic environment.



**Figure S2.** Data distribution and direct correlations (Pearson’s) of data in the inlet environment.

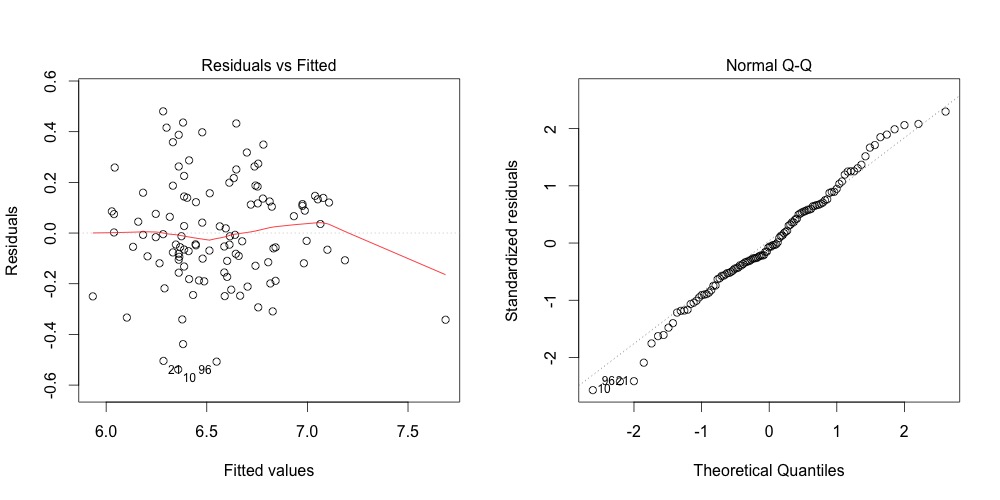


**Figure S3.** Data distribution and direct correlations (Pearson’s) of data in the hypoxic environment.

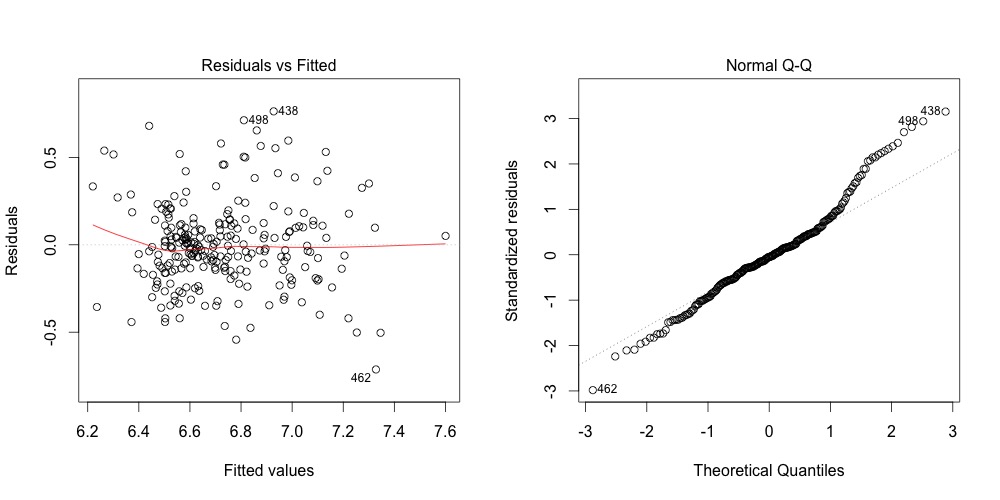


**Figure S4.** Residual density for linear models of log10 viral abundance and log10 bacterial abundance in the three environments. Shapiro–Wilk test: Arctic, w = 0.99, *p*-value = 0.54; inlet, w = 0.96, *p*-value = 0.0002; hypoxic, 0.93, *p*-value = 0.0001.

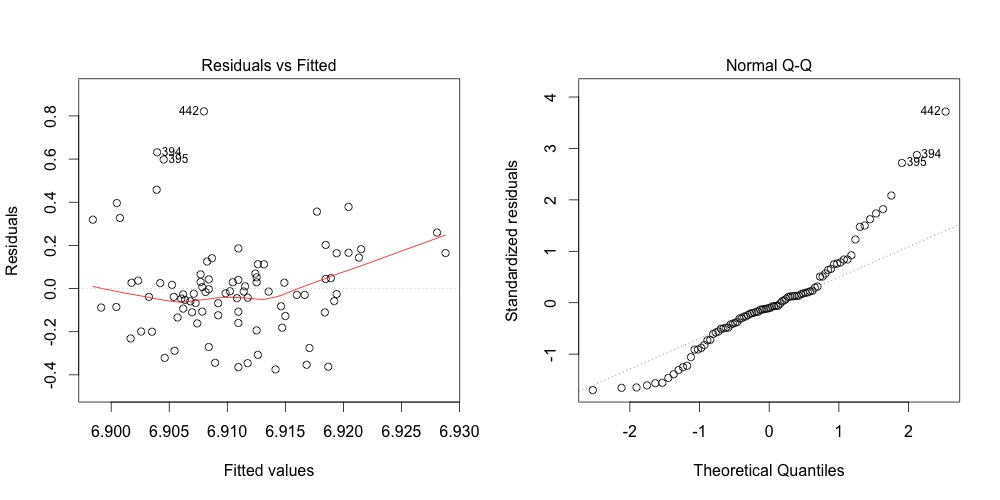
(a)



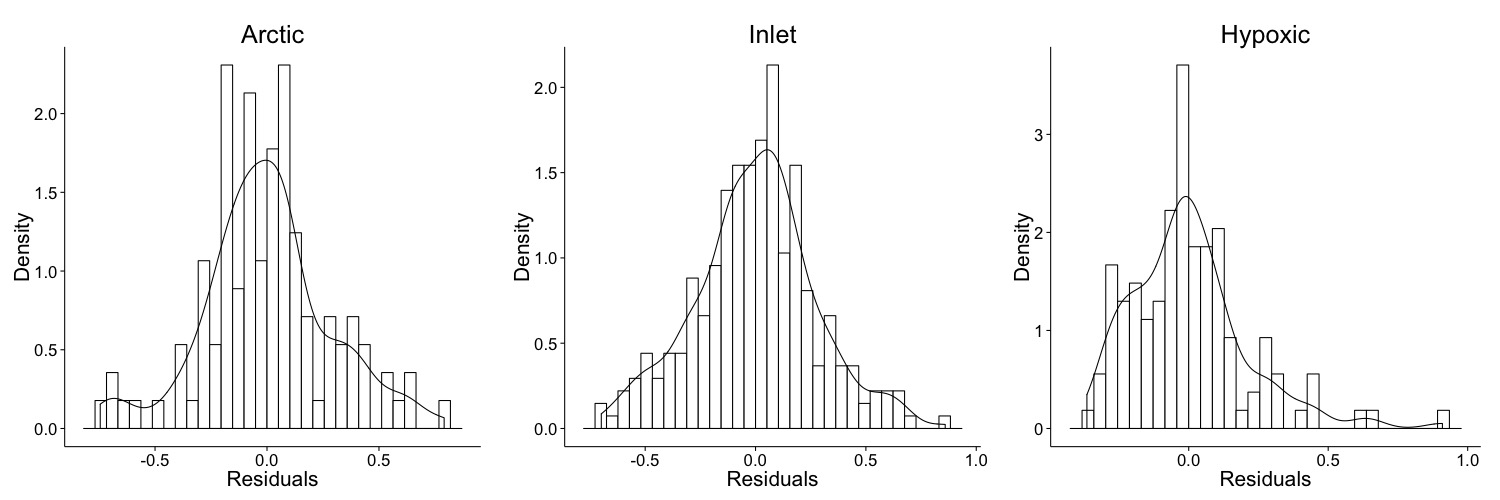
(b)



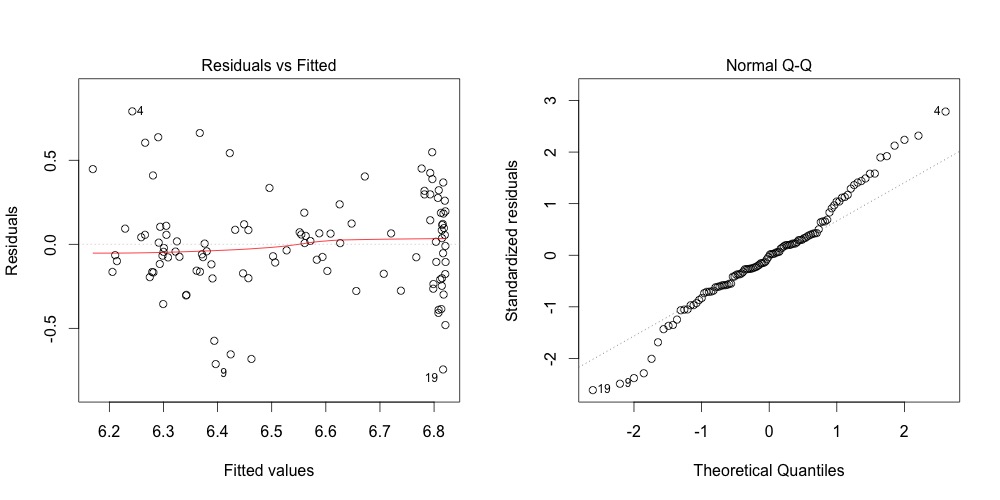
(c)



**Figure S5.** Residual distribution and qq-plots for linear models of log10 viral abundance and log10 bacterial abundance for the Arctic (**a**), inlet (**b**) and hypoxic (**c**) environments.

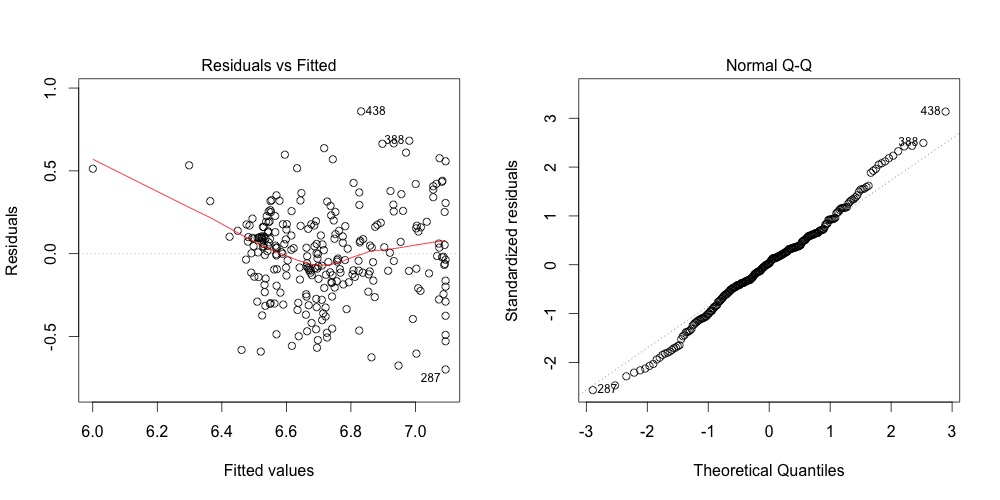
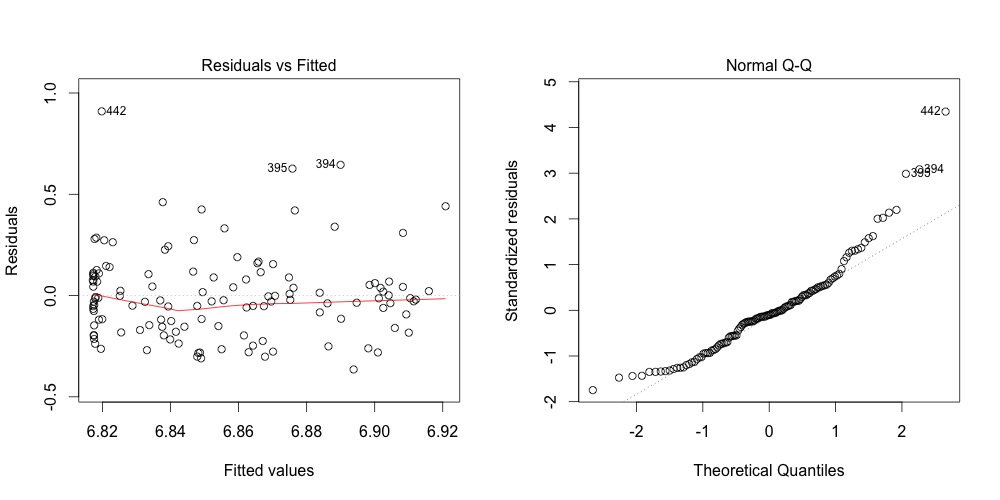


**Figure S6.** Residual density for linear models of log10 viral abundance and nitrate in the three environments. Shapiro–Wilk test: Arctic, w = 0.98, *p*-value = 0.087; inlet, w = 0.99, *p*-value = 0.176; hypoxic, 0.93, *p*-value = 3.61e-06.



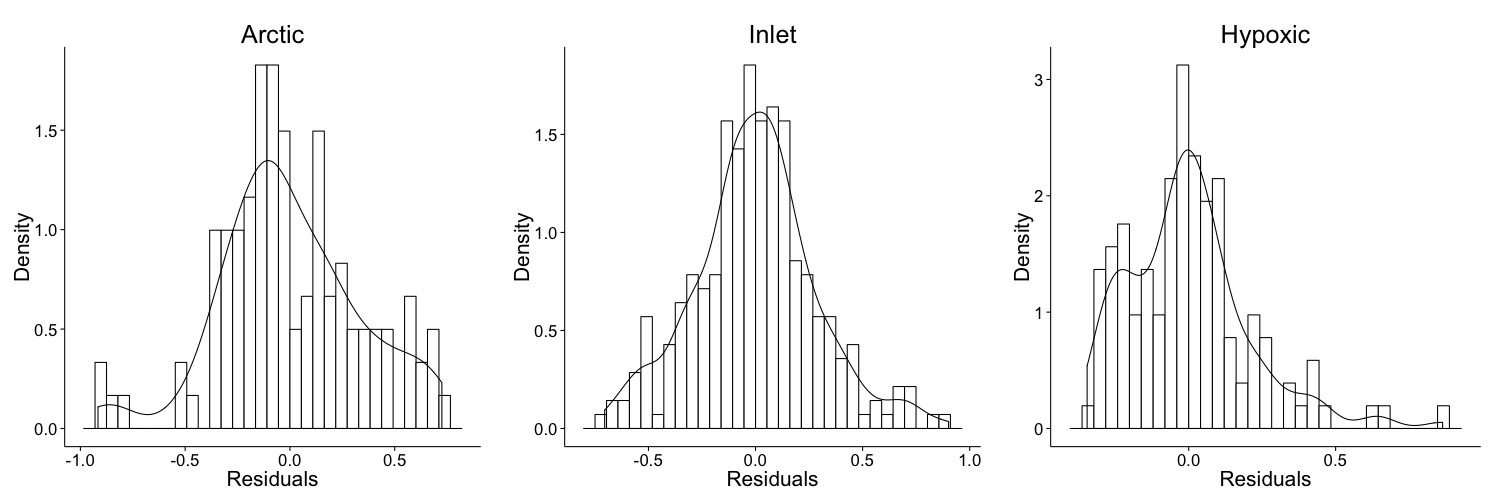
(b)

(a)

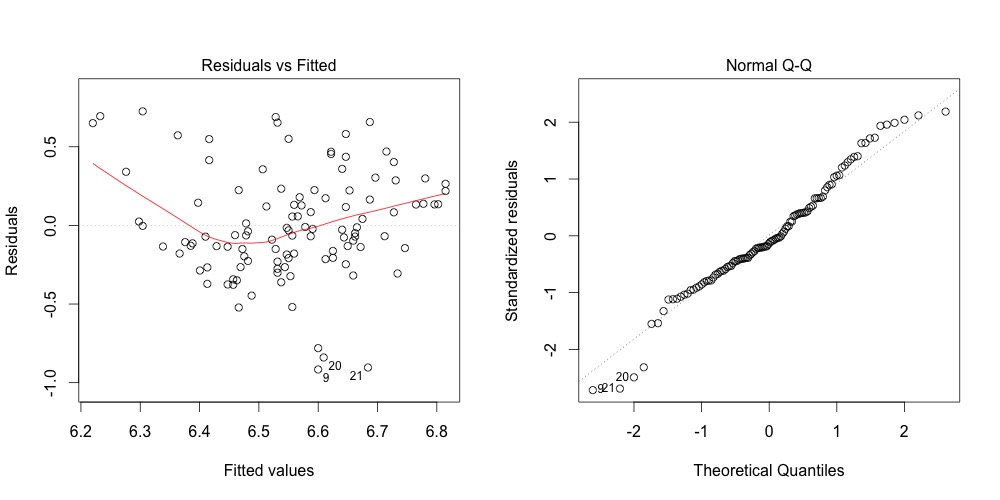


(c)

**Figure S7.** Residual distribution and qq-plots for linear models of log10 viral abundance and nitrate for the Arctic (**a**), inlet (**b**) and hypoxic (**c**) environments.



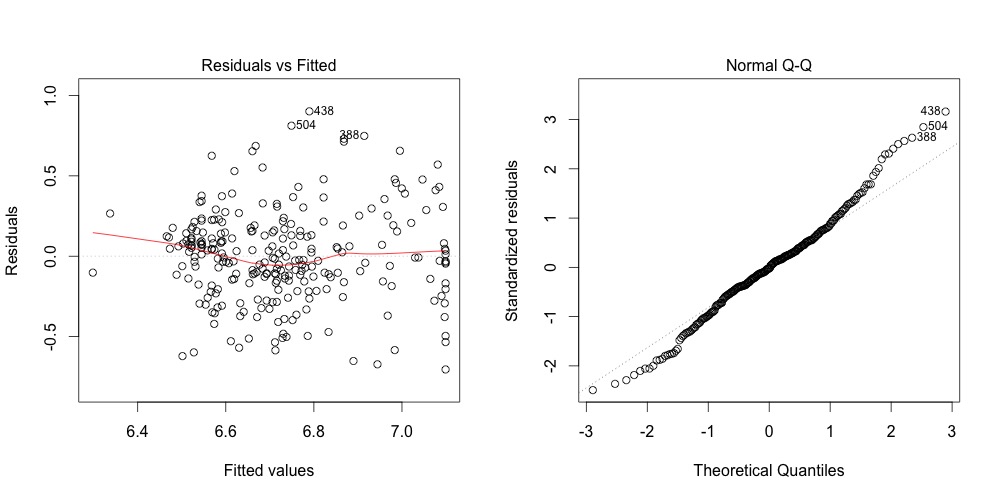
**Figure S8.** Residual density for linear models of log10 viral abundance and phosphate in the three environments. Shapiro–Wilk test: Arctic, w = 0.97, *p*-value = 0.031; inlet, w = 0.99, *p*-value = 0.034; hypoxic, 0.93, *p*-value = 7.69e-06.

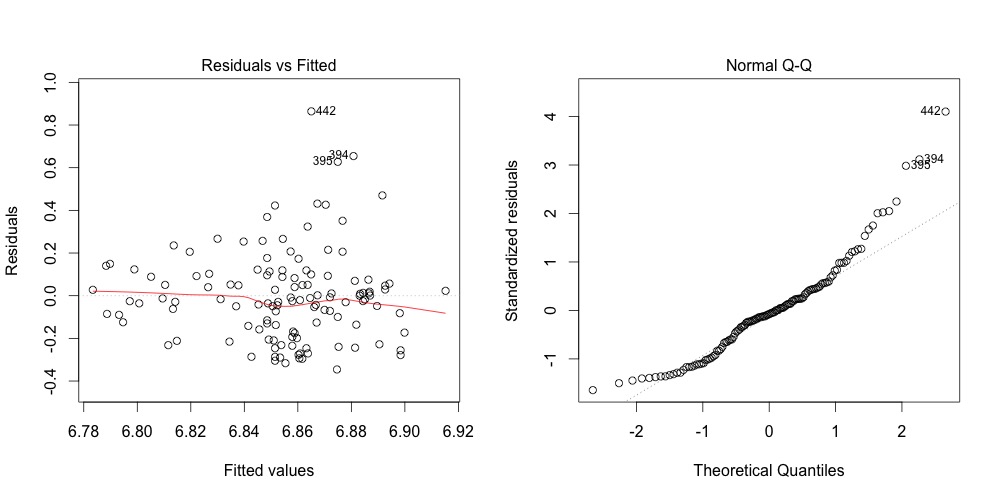


(c)

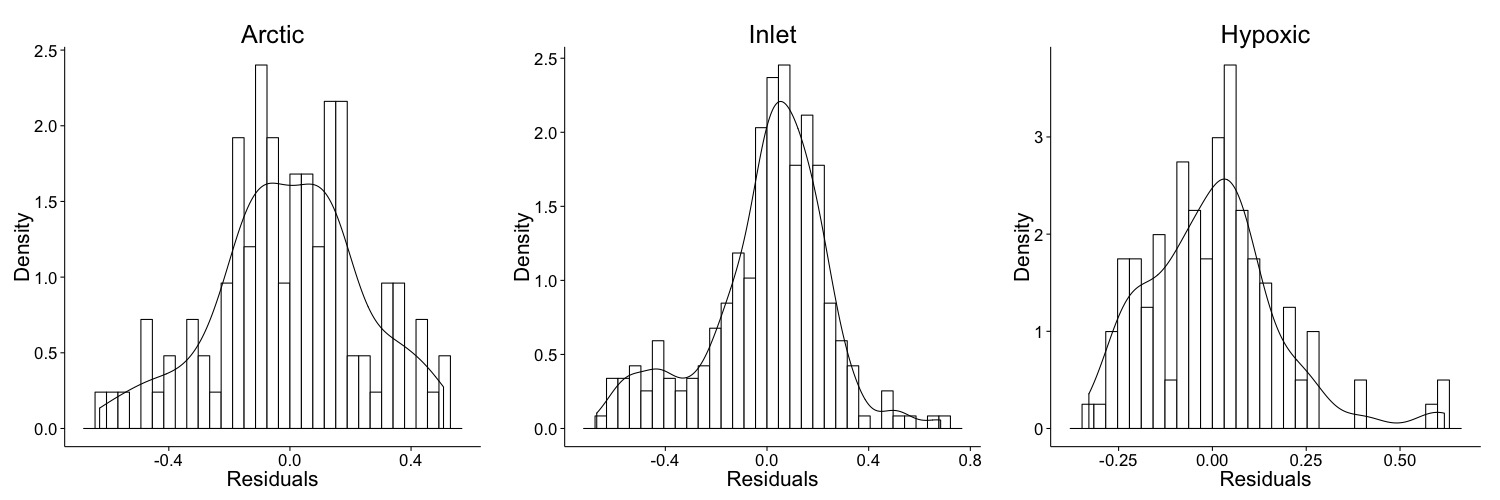
(b)

(a)

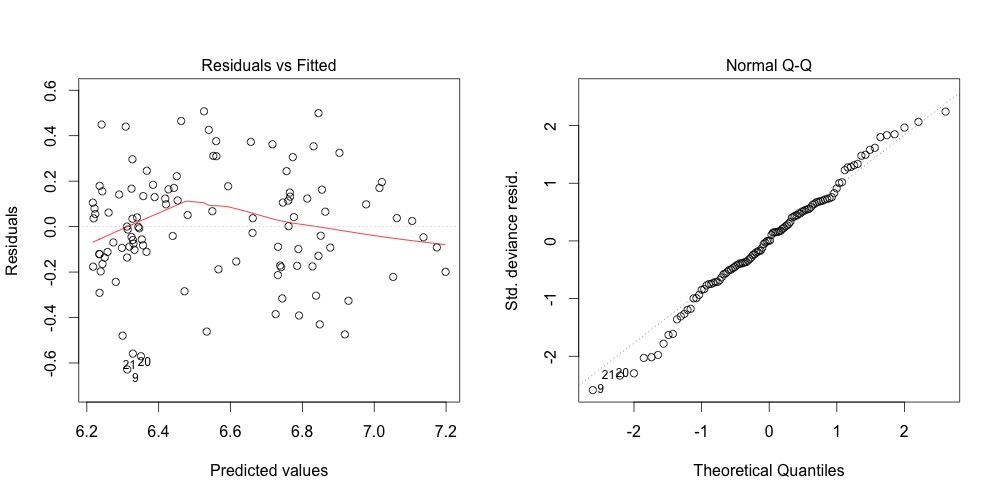




**Figure S9.** Residual distribution and qq-plots for linear models of log10 viral abundance and phosphate for the Arctic (**a**), inlet (**b**) and hypoxic (**c**) environments.

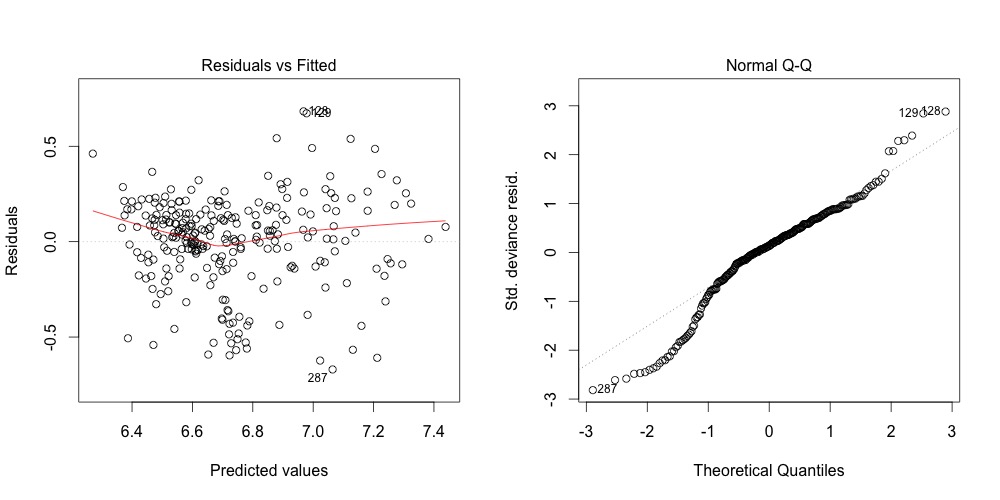


**Figure S10.** Residual density for generalized linear models of log10 viral abundance and combined environmental variables in the three environments. Shapiro–Wilk test: Arctic, w = 0.99, *p*-value = 0.406; inlet, w = 0.95, *p*-value = 1.68e-07; hypoxic, 0.95, *p*-value = 6.24e-05.

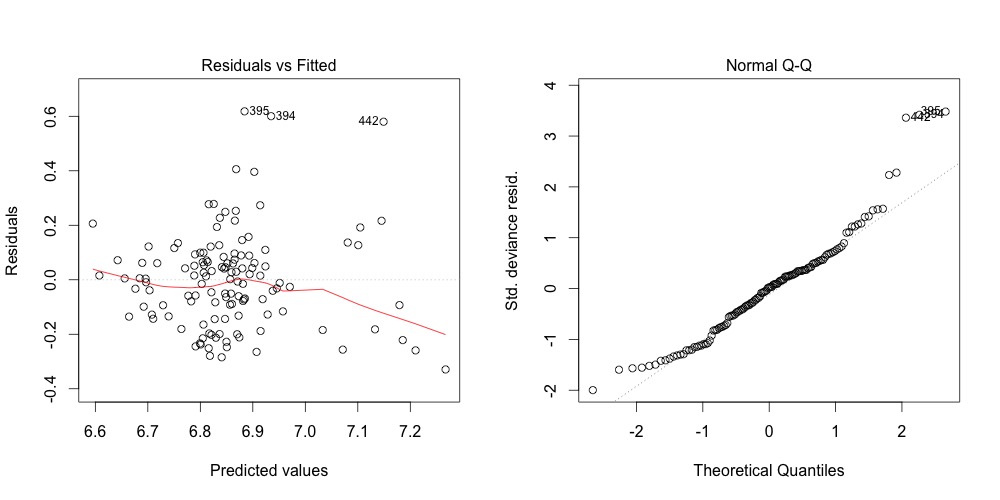


(b)

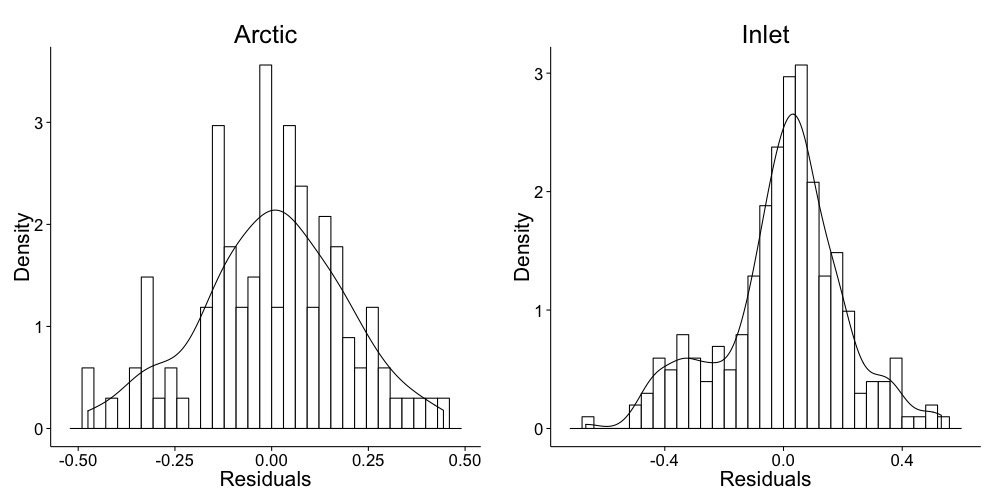
(a)



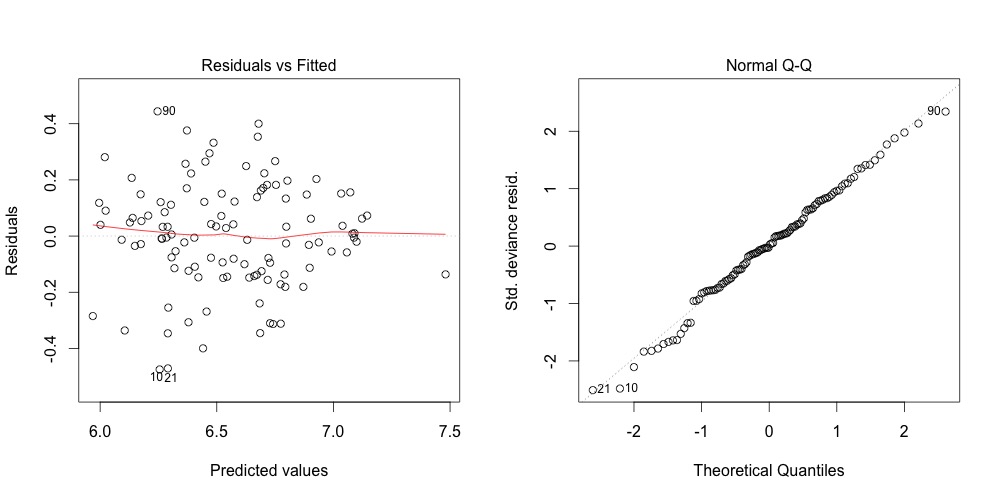
(c)



**Figure S11.** Residual distribution and qq-plots for linear models of log10 viral abundance and combined environmental variables for the Arctic (**a**), inlet (**b**) and hypoxic (**c**) environments.

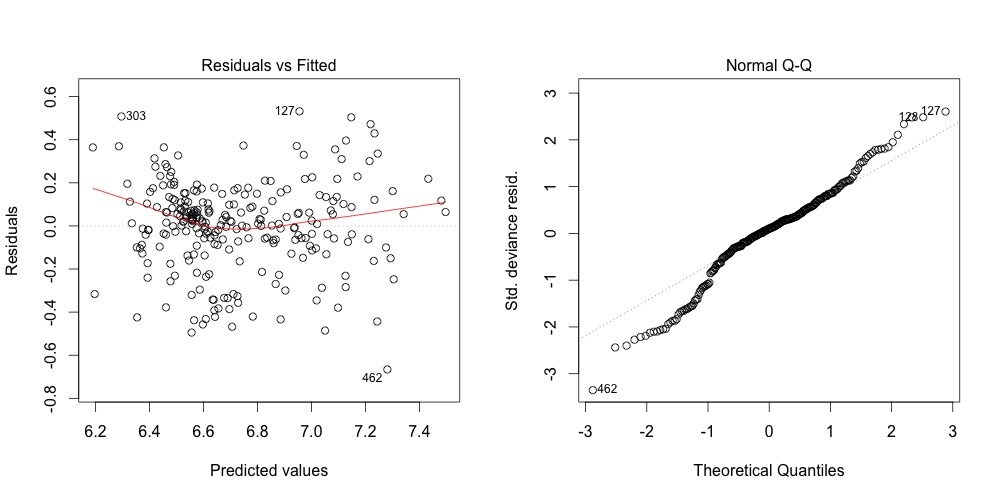
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**Figure S12.** Residual density for generalized linear models of log10 viral abundance and combined log10 bacterial abundance and environmental variables in the Arctic and inlet environments. Shapiro–Wilk test: Arctic, w = 0.99, *p*-value = 0.685; inlet, w = 0.98, *p*-value = 0.002.



(a)

(b)



**Figure S13.** Residual distribution and qq-plots for linear models of log10 viral abundance and combined log10 bacterial abundance and environmental variables for the Arctic (**a**) and inlet (**b**) environments.