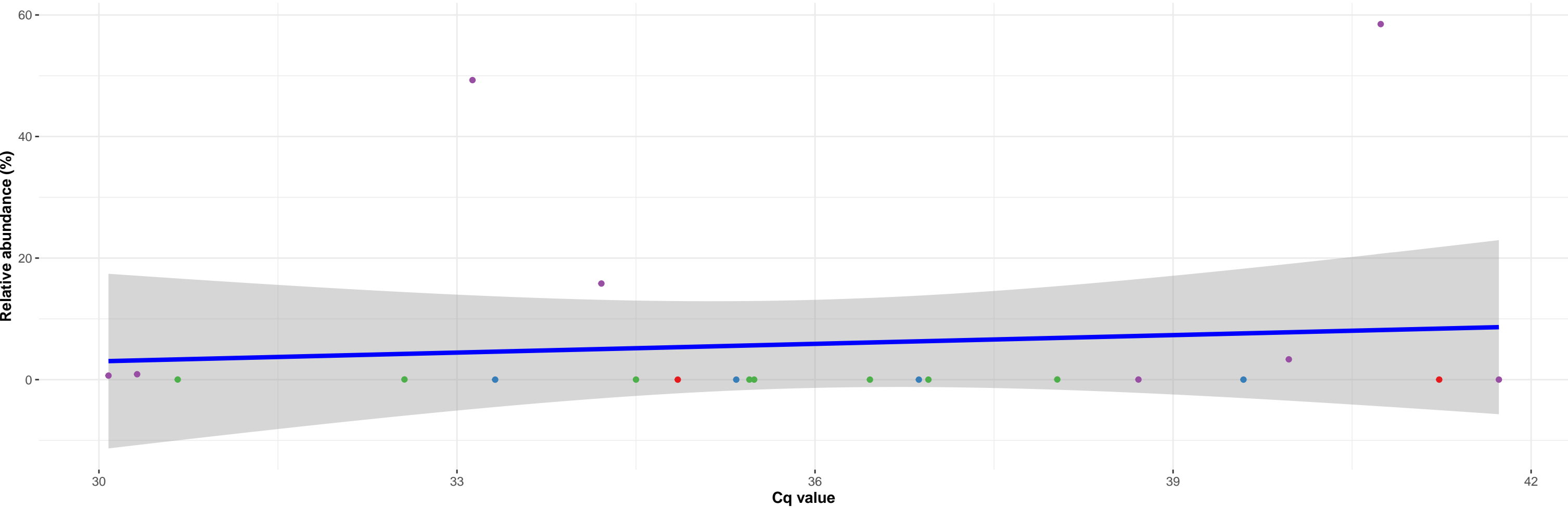


k\_\_Bacteria; p\_\_Firmicutes; c\_\_Clostridia; o\_\_Clostridiales; f\_\_Clostridiaceae 1; g\_\_Clostridium sensu stricto 1; NA

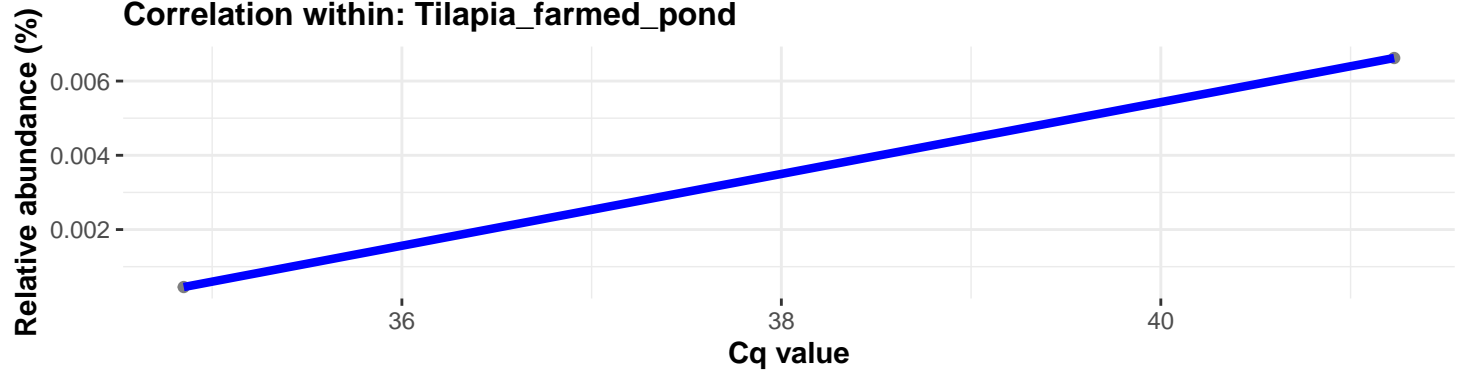
featureID: 30cd2eb39b81e92ac815ec19fd6ccdee

Correlation with all samples

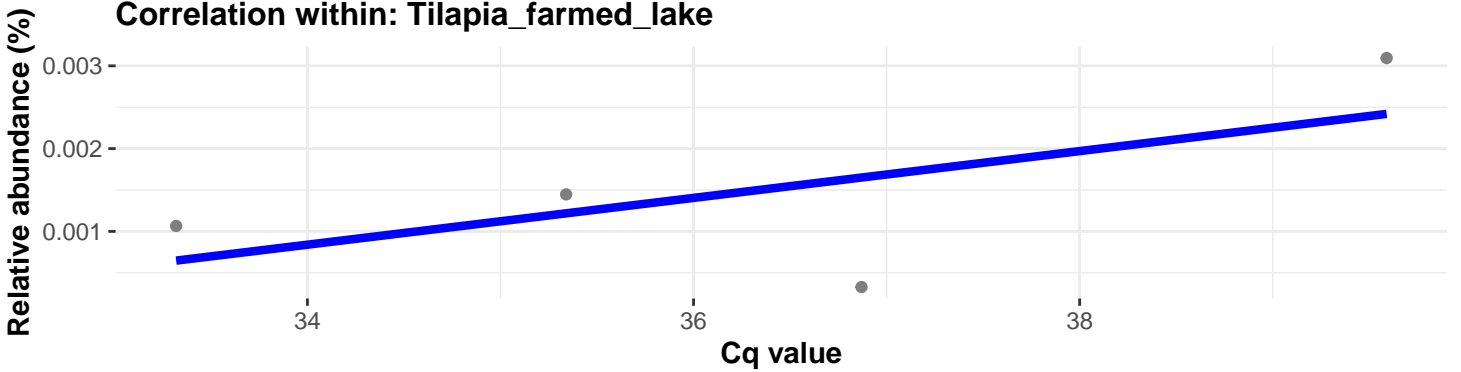
$\log_e(S) = 7.631$ ,  $p = 0.465$ ,  $\hat{\rho}_{\text{Spearman}} = -0.164$ ,  $CI_{95\%} [-0.557, 0.289]$ ,  $n_{\text{pairs}} = 22$



Correlation within: Tilapia\_farmed\_pond

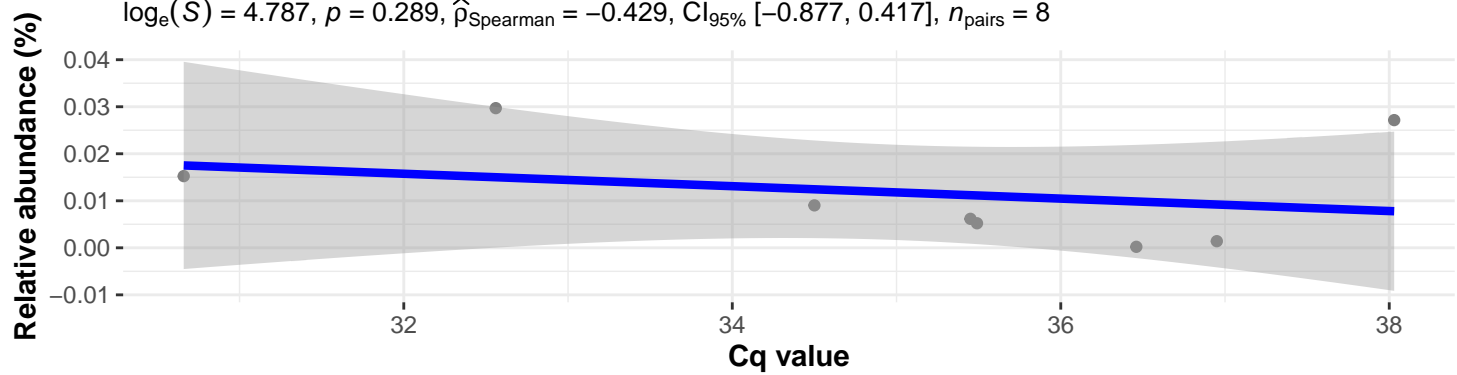


Correlation within: Tilapia\_farmed\_lake



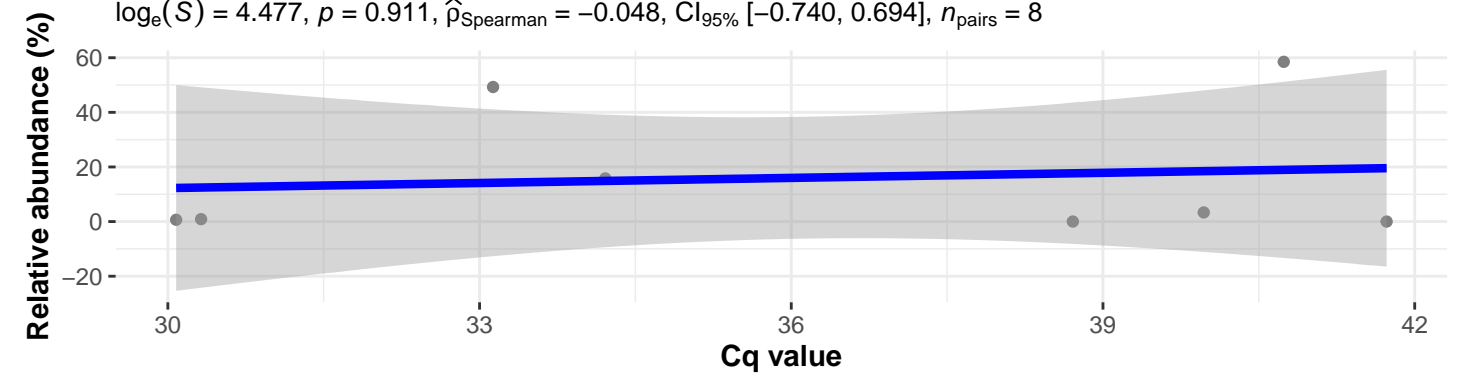
Correlation within: Tilapia\_wild\_lake

$\log_e(S) = 4.787$ ,  $p = 0.289$ ,  $\hat{\rho}_{\text{Spearman}} = -0.429$ ,  $CI_{95\%} [-0.877, 0.417]$ ,  $n_{\text{pairs}} = 8$



Correlation within: Perch\_wild\_lake

$\log_e(S) = 4.477$ ,  $p = 0.911$ ,  $\hat{\rho}_{\text{Spearman}} = -0.048$ ,  $CI_{95\%} [-0.740, 0.694]$ ,  $n_{\text{pairs}} = 8$

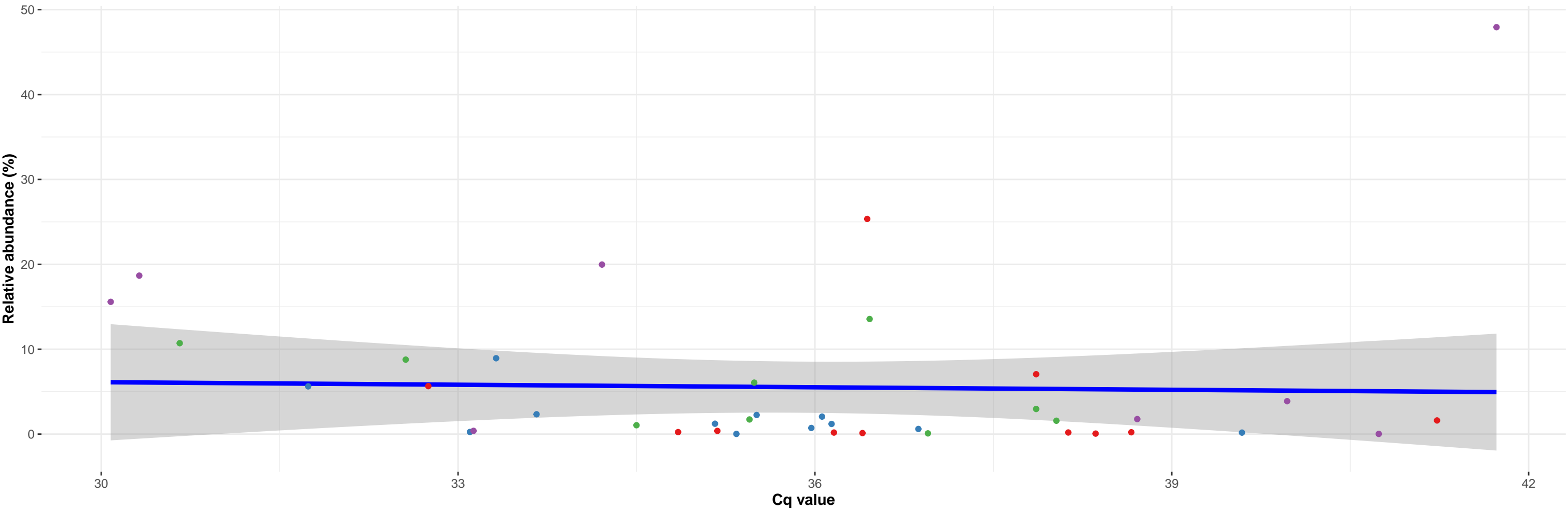


k\_\_Bacteria; p\_\_Fusobacteria; c\_\_Fusobacteriia; o\_\_Fusobacteriales; f\_\_Fusobacteriaceae; g\_\_Cetobacterium; NA

featureID: 9039275571577e03e38d718f59db0e1f

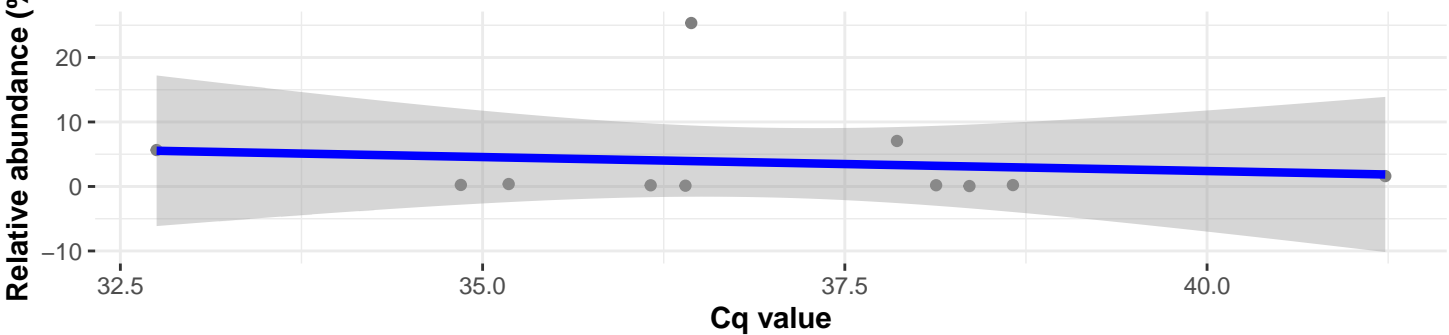
Correlation with all samples

$\log_e(S) = 9.554$ ,  $p = 0.042$ ,  $\hat{\rho}_{\text{Spearman}} = -0.323$ ,  $\text{CI}_{95\%} [-0.583, -0.003]$ ,  $n_{\text{pairs}} = 40$



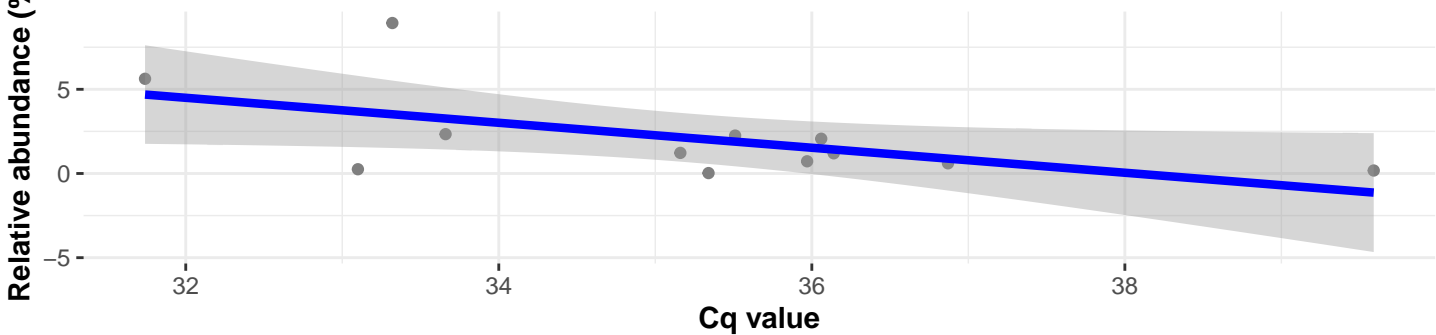
Correlation within: Tilapia\_farmed\_pond

$\log_e(S) = 5.537$ ,  $p = 0.650$ ,  $\hat{\rho}_{\text{Spearman}} = -0.155$ ,  $\text{CI}_{95\%} [-0.701, 0.506]$ ,  $n_{\text{pairs}} = 11$



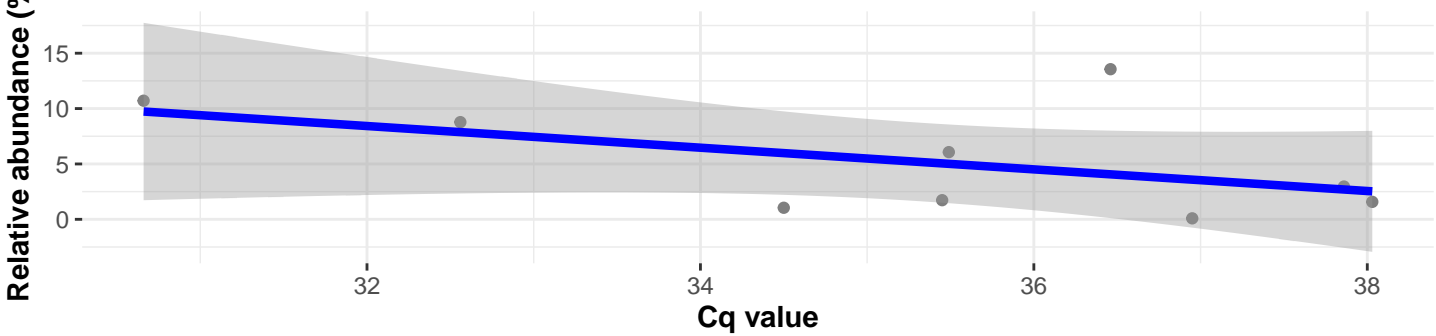
Correlation within: Tilapia\_farmed\_lake

$\log_e(S) = 6.054$ ,  $p = 0.106$ ,  $\hat{\rho}_{\text{Spearman}} = -0.490$ ,  $\text{CI}_{95\%} [-0.836, 0.136]$ ,  $n_{\text{pairs}} = 12$



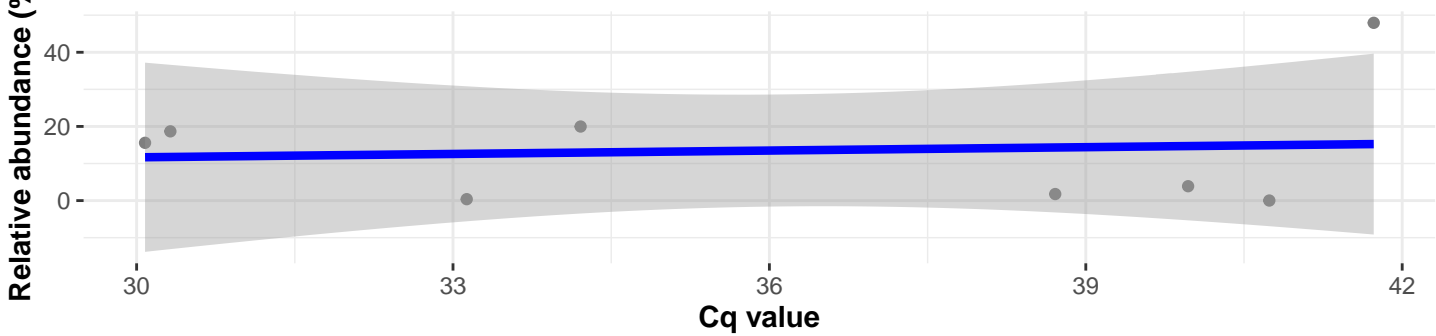
Correlation within: Tilapia\_wild\_lake

$\log_e(S) = 5.112$ ,  $p = 0.308$ ,  $\hat{\rho}_{\text{Spearman}} = -0.383$ ,  $\text{CI}_{95\%} [-0.842, 0.397]$ ,  $n_{\text{pairs}} = 9$



Correlation within: Perch\_wild\_lake

$\log_e(S) = 4.454$ ,  $p = 0.955$ ,  $\hat{\rho}_{\text{Spearman}} = -0.024$ ,  $\text{CI}_{95\%} [-0.729, 0.706]$ ,  $n_{\text{pairs}} = 8$

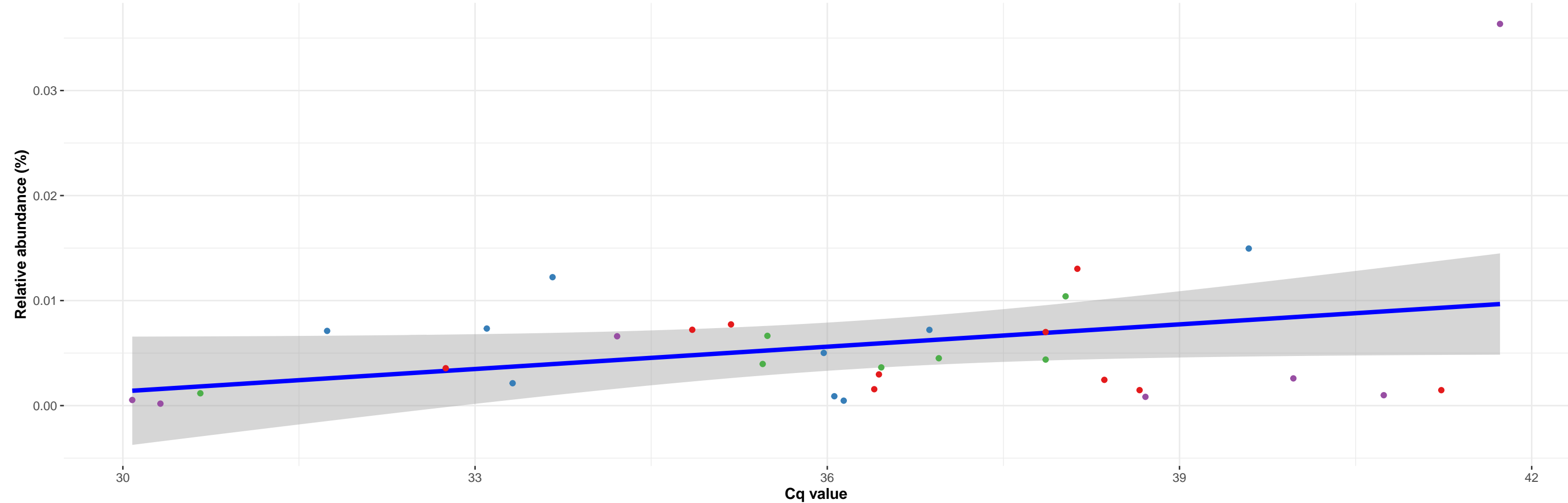


k\_\_Bacteria; p\_\_Proteobacteria; c\_\_Gammaproteobacteria; o\_\_Betaproteobacteriales; f\_\_Burkholderiaceae; g\_\_Curvibacter; NA

featureID: e0fcddfb9012f2ef3fe5165e818f651

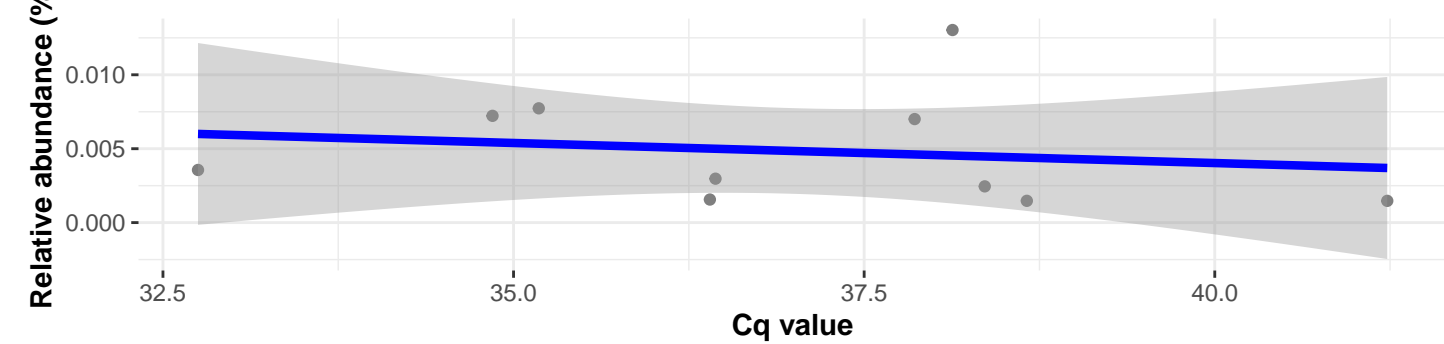
**Correlation with all samples**

$\log_e(S) = 8.588$ ,  $p = 0.569$ ,  $\hat{\rho}_{\text{Spearman}} = 0.103$ ,  $\text{CI}_{95\%} [-0.259, 0.439]$ ,  $n_{\text{pairs}} = 33$



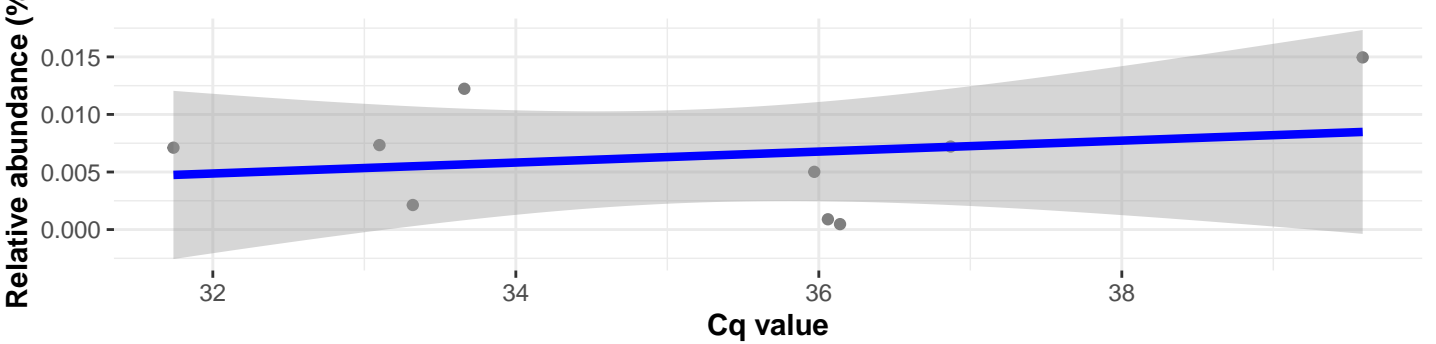
**Correlation within: Tilapia\_farmed\_pond**

$\log_e(S) = 5.537$ ,  $p = 0.108$ ,  $\hat{\rho}_{\text{Spearman}} = -0.539$ ,  $\text{CI}_{95\%} [-0.878, 0.158]$ ,  $n_{\text{pairs}} = 10$



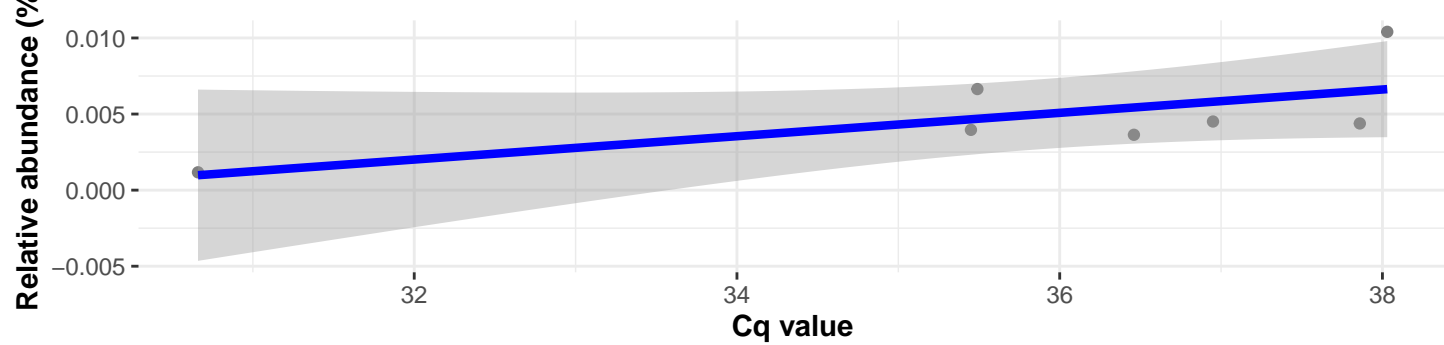
**Correlation within: Tilapia\_farmed\_lake**

$\log_e(S) = 4.736$ ,  $p = 0.898$ ,  $\hat{\rho}_{\text{Spearman}} = 0.050$ ,  $\text{CI}_{95\%} [-0.649, 0.703]$ ,  $n_{\text{pairs}} = 9$



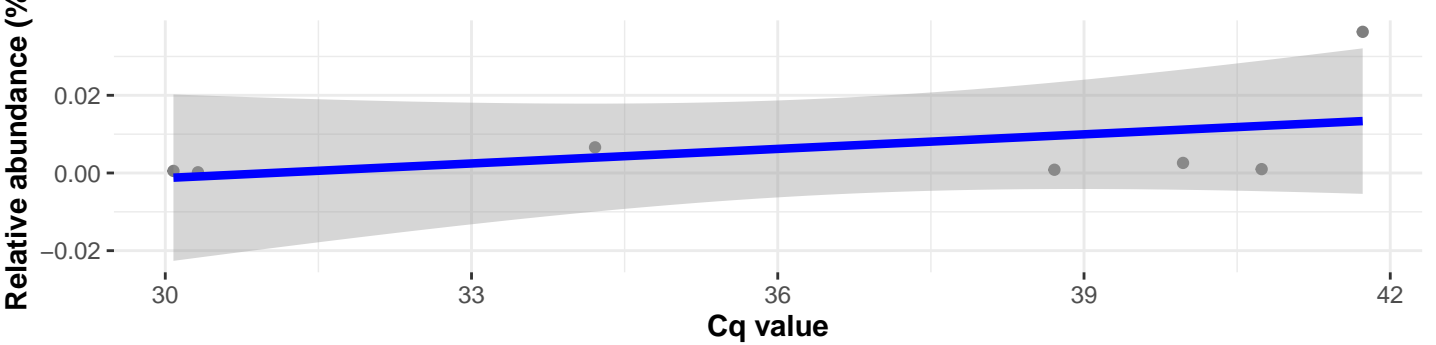
**Correlation within: Tilapia\_wild\_lake**

$\log_e(S) = 2.890$ ,  $p = 0.094$ ,  $\hat{\rho}_{\text{Spearman}} = 0.679$ ,  $\text{CI}_{95\%} [-0.180, 0.950]$ ,  $n_{\text{pairs}} = 7$



**Correlation within: Perch\_wild\_lake**

$\log_e(S) = 2.773$ ,  $p = 0.071$ ,  $\hat{\rho}_{\text{Spearman}} = 0.714$ ,  $\text{CI}_{95\%} [-0.113, 0.957]$ ,  $n_{\text{pairs}} = 7$

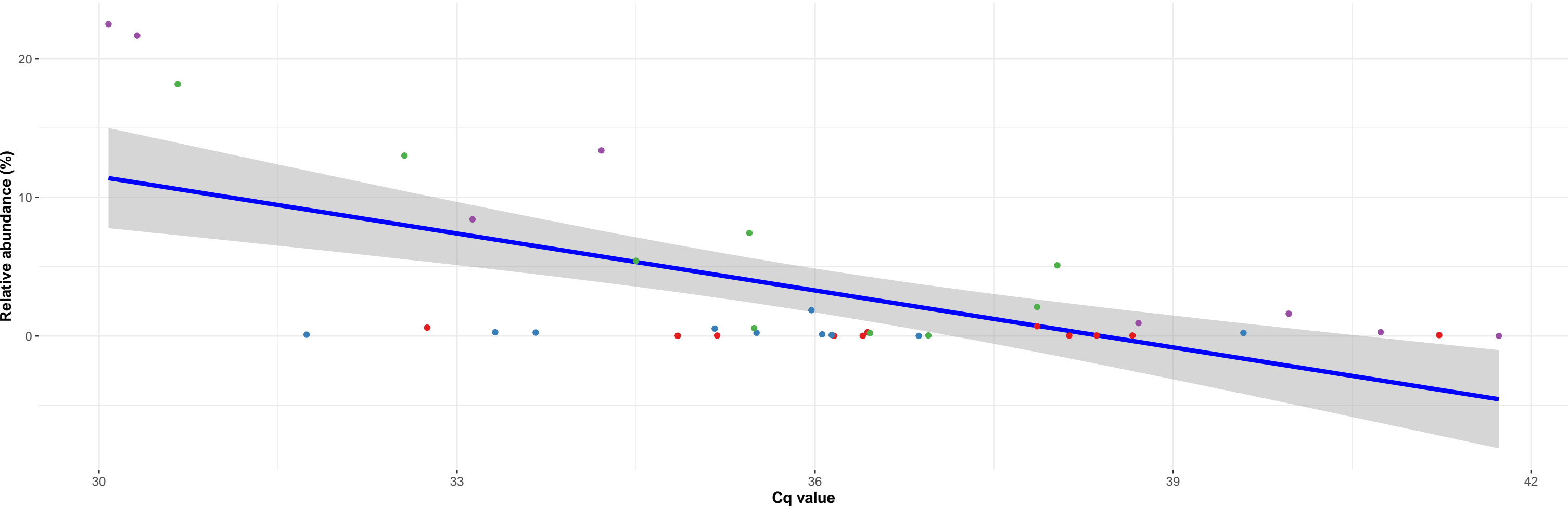


k\_\_Bacteria; p\_\_Proteobacteria; c\_\_Gammaproteobacteria; o\_\_Enterobacteriales; f\_\_Enterobacteriaceae; g\_\_Plesiomonas; NA

featureID: 4f52c06bab364867d8911147cbccbc38

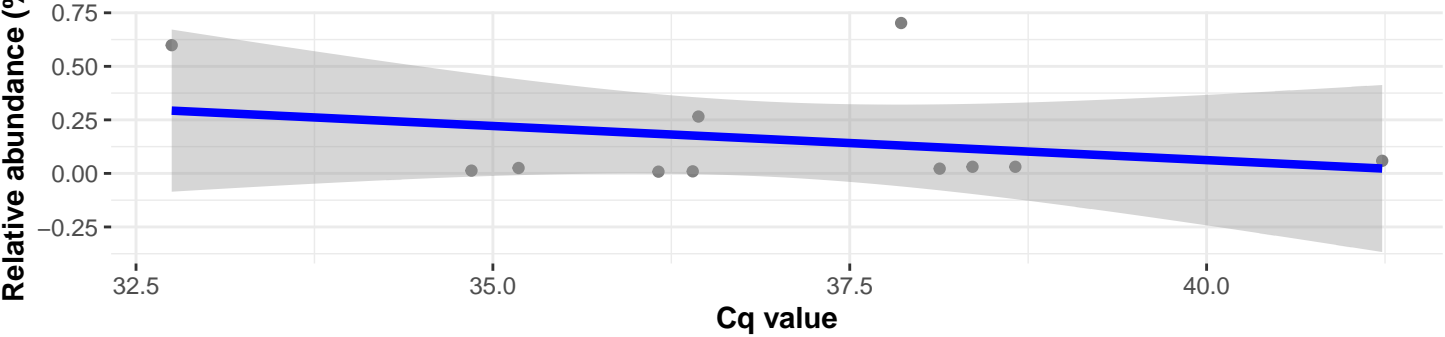
Correlation with all samples

$\log_e(S) = 9.506$ ,  $p = 0.003$ ,  $\hat{\rho}_{\text{Spearman}} = -0.471$ ,  $CI_{95\%} [-0.692, -0.169]$ ,  $n_{\text{pairs}} = 38$



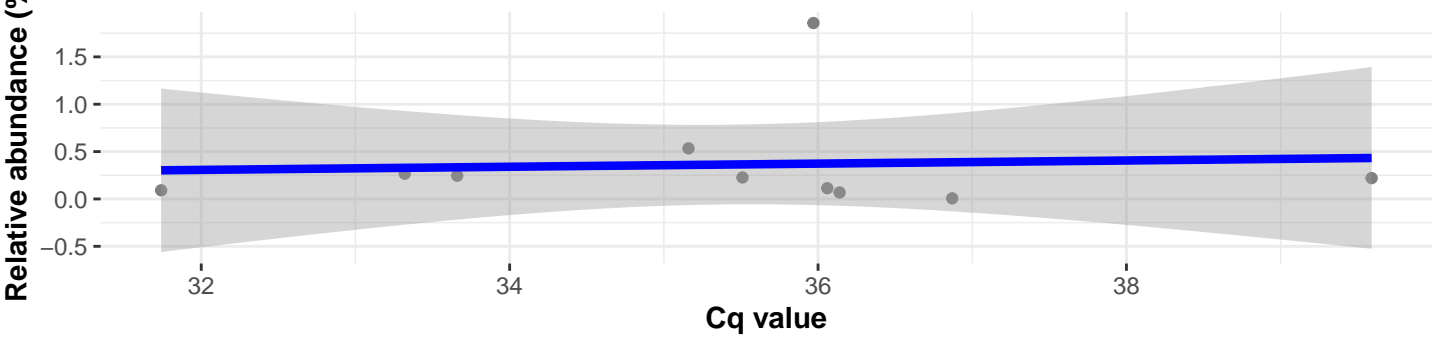
Correlation within: Tilapia\_farmed\_pond

$\log_e(S) = 5.159$ ,  $p = 0.537$ ,  $\hat{\rho}_{\text{Spearman}} = 0.209$ ,  $CI_{95\%} [-0.463, 0.729]$ ,  $n_{\text{pairs}} = 11$



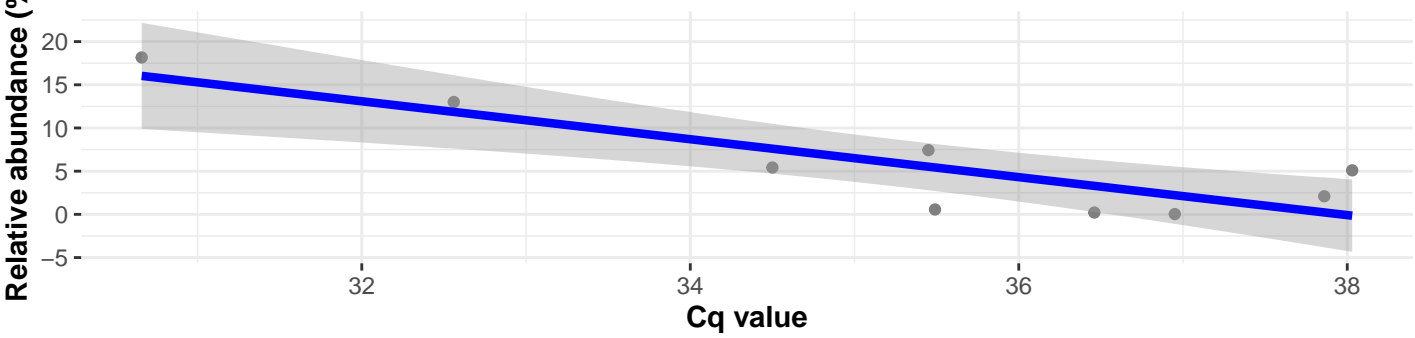
Correlation within: Tilapia\_farmed\_lake

$\log_e(S) = 5.447$ ,  $p = 0.244$ ,  $\hat{\rho}_{\text{Spearman}} = -0.406$ ,  $CI_{95\%} [-0.832, 0.320]$ ,  $n_{\text{pairs}} = 10$



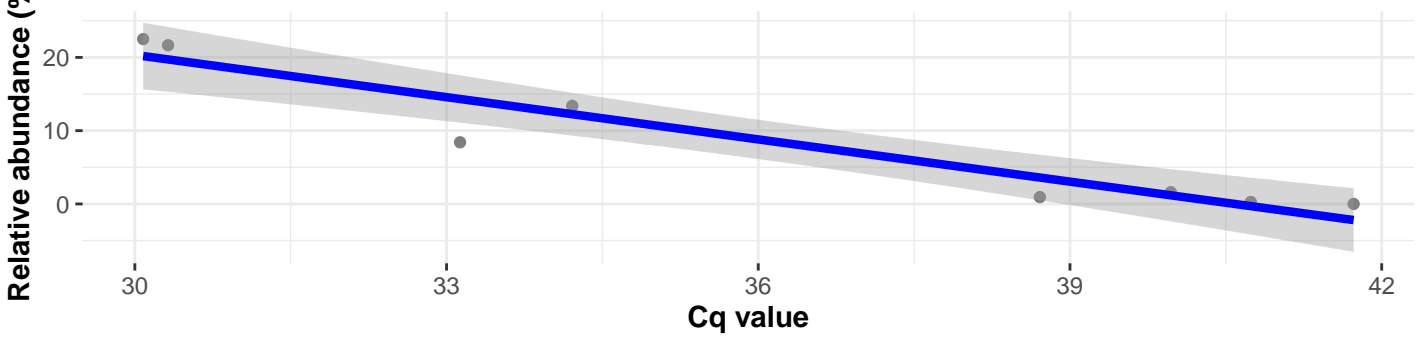
Correlation within: Tilapia\_wild\_lake

$\log_e(S) = 5.328$ ,  $p = 0.030$ ,  $\hat{\rho}_{\text{Spearman}} = -0.717$ ,  $CI_{95\%} [-0.938, -0.077]$ ,  $n_{\text{pairs}} = 9$



Correlation within: Perch\_wild\_lake

$\log_e(S) = 5.100$ ,  $p = 2.6e-04$ ,  $\hat{\rho}_{\text{Spearman}} = -0.952$ ,  $CI_{95\%} [-0.992, -0.742]$ ,  $n_{\text{pairs}} = 8$

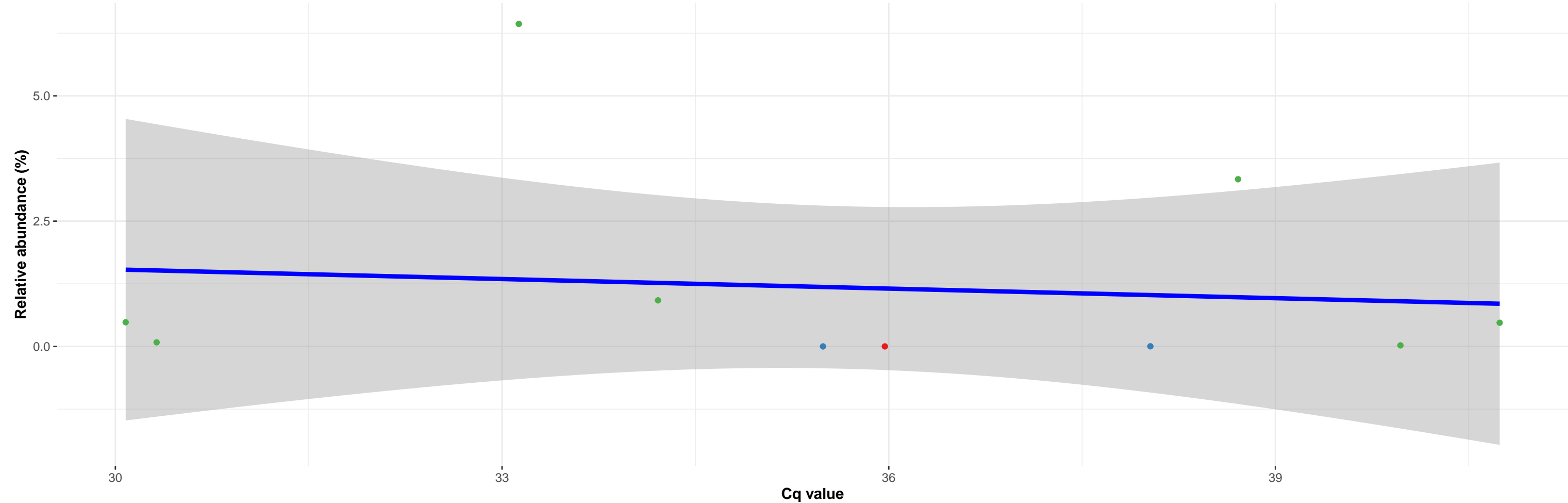


k\_\_Bacteria; p\_\_Firmicutes; c\_\_Clostridia; o\_\_Clostridiales; f\_\_Clostridiaceae 1; NA; NA

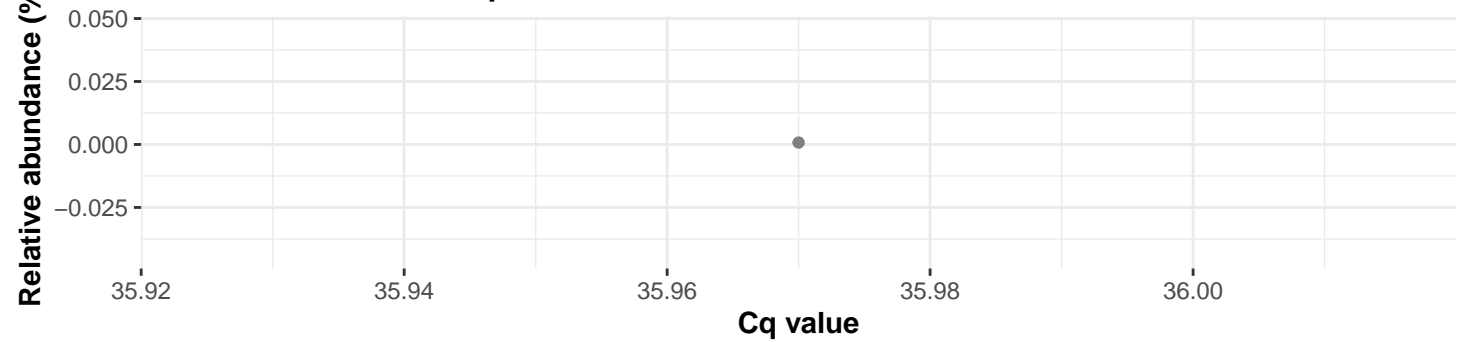
featureID: 2e13ada579831ad7bc85cacea069bcb4

**Correlation with all samples**

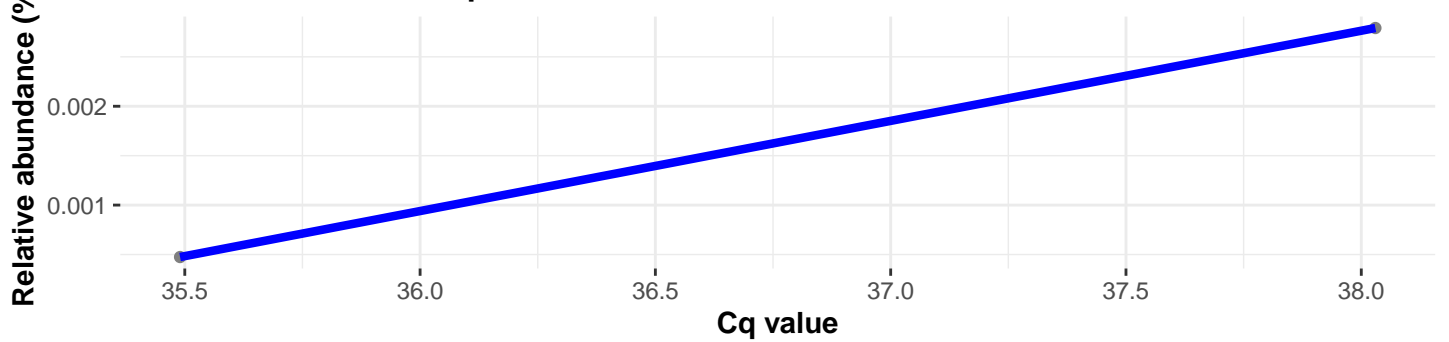
$\log_e(S) = 5.298$ ,  $\rho = 0.556$ ,  $\hat{\rho}_{\text{Spearman}} = -0.212$ ,  $CI_{95\%} [-0.752, 0.498]$ ,  $n_{\text{pairs}} = 10$



**Correlation within: Tilapia\_farmed\_lake**

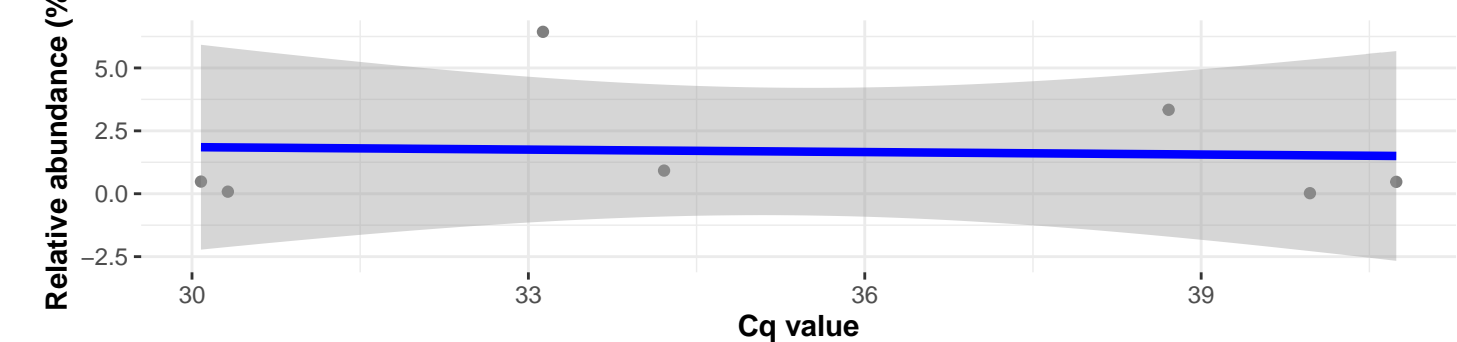


**Correlation within: Tilapia\_wild\_lake**



**Correlation within: Perch\_wild\_lake**

$\log_e(S) = 4.220$ ,  $\rho = 0.645$ ,  $\hat{\rho}_{\text{Spearman}} = -0.214$ ,  $CI_{95\%} [-0.842, 0.659]$ ,  $n_{\text{pairs}} = 7$

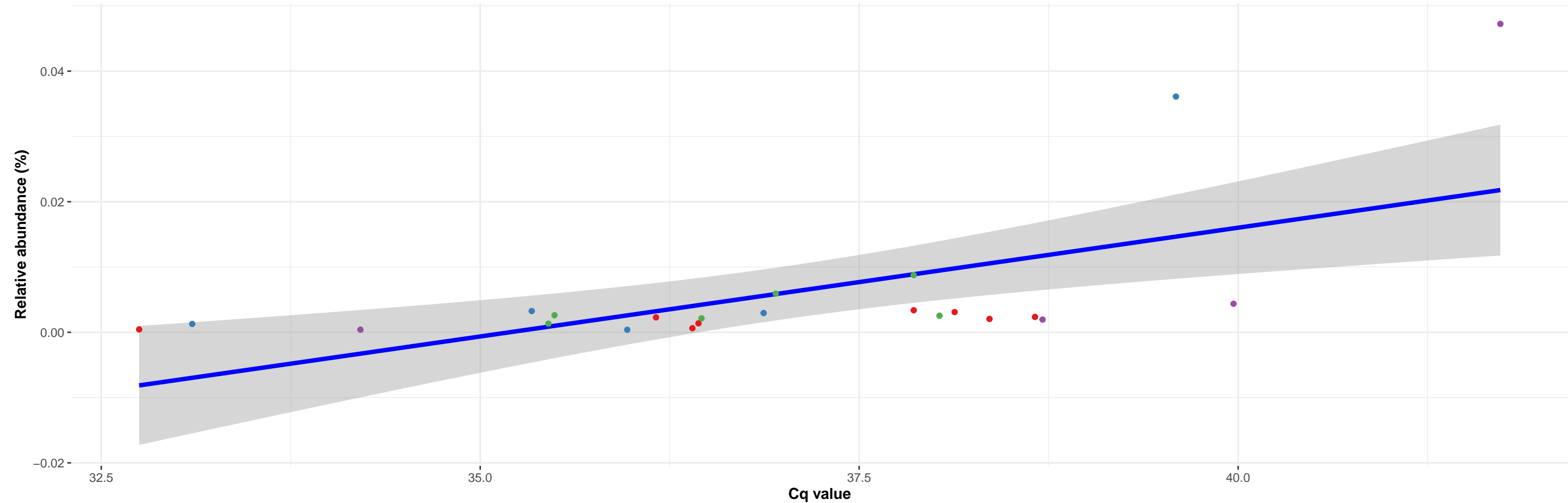


k\_\_Bacteria; p\_\_Bacteroidetes; c\_\_Bacteroidia; o\_\_Flavobacteriales; f\_\_Flavobacteriaceae; g\_\_Flavobacterium; NA

featureID: 11c192ca47293df7d3c26138fd796fe1

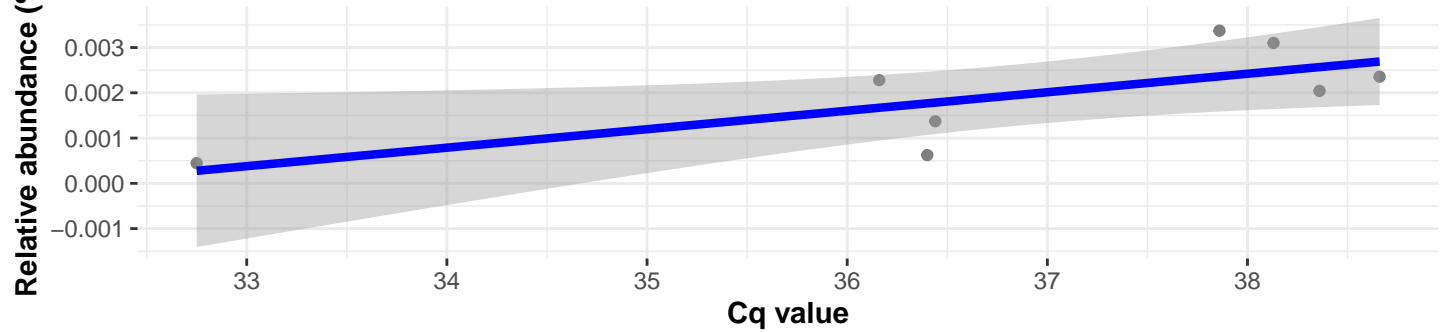
Correlation with all samples

$\log_e(S) = 6.599$ ,  $p = 0.001$ ,  $\hat{\rho}_{\text{Spearman}} = 0.637$ ,  $\text{CI}_{95\%} [0.293, 0.835]$ ,  $n_{\text{pairs}} = 23$

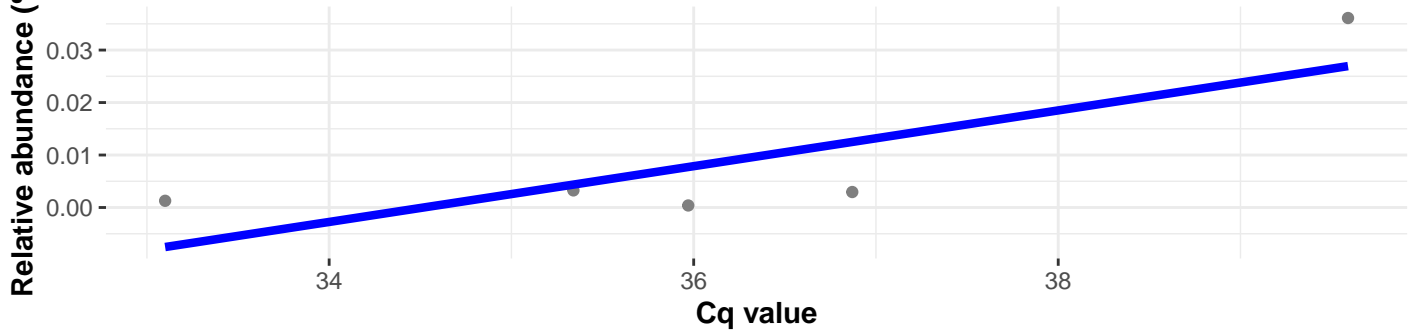


Correlation within: Tilapia\_farmed\_pond

$\log_e(S) = 3.526$ ,  $p = 0.120$ ,  $\hat{\rho}_{\text{Spearman}} = 0.595$ ,  $\text{CI}_{95\%} [-0.213, 0.920]$ ,  $n_{\text{pairs}} = 8$

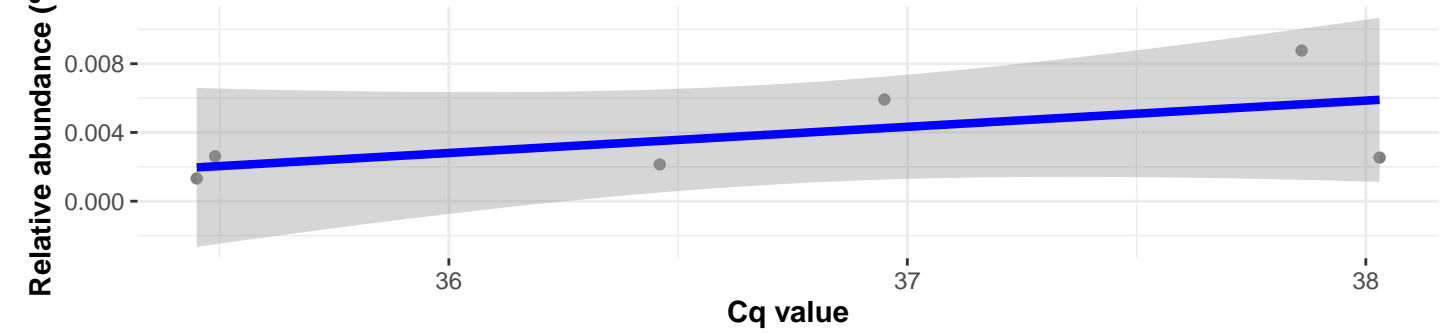


Correlation within: Tilapia\_farmed\_lake

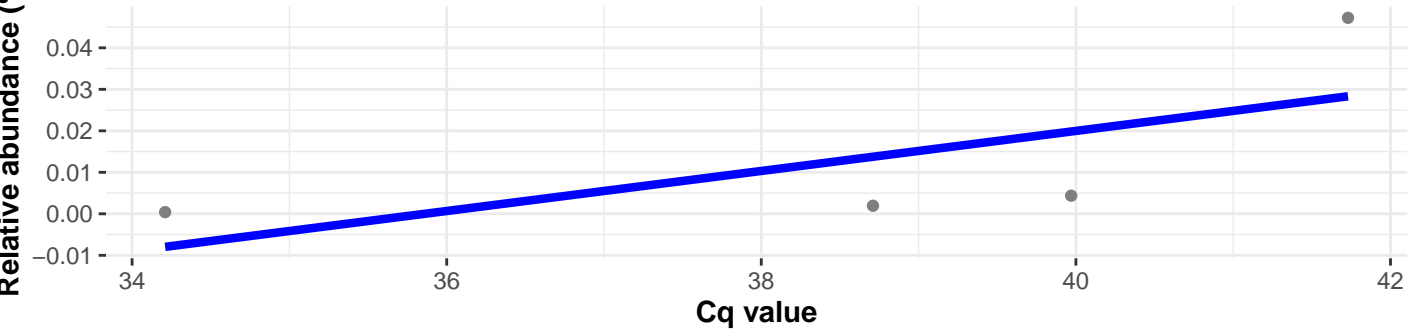


Correlation within: Tilapia\_wild\_lake

$\log_e(S) = 2.773$ ,  $p = 0.266$ ,  $\hat{\rho}_{\text{Spearman}} = 0.543$ ,  $\text{CI}_{95\%} [-0.506, 0.944]$ ,  $n_{\text{pairs}} = 6$



Correlation within: Perch\_wild\_lake

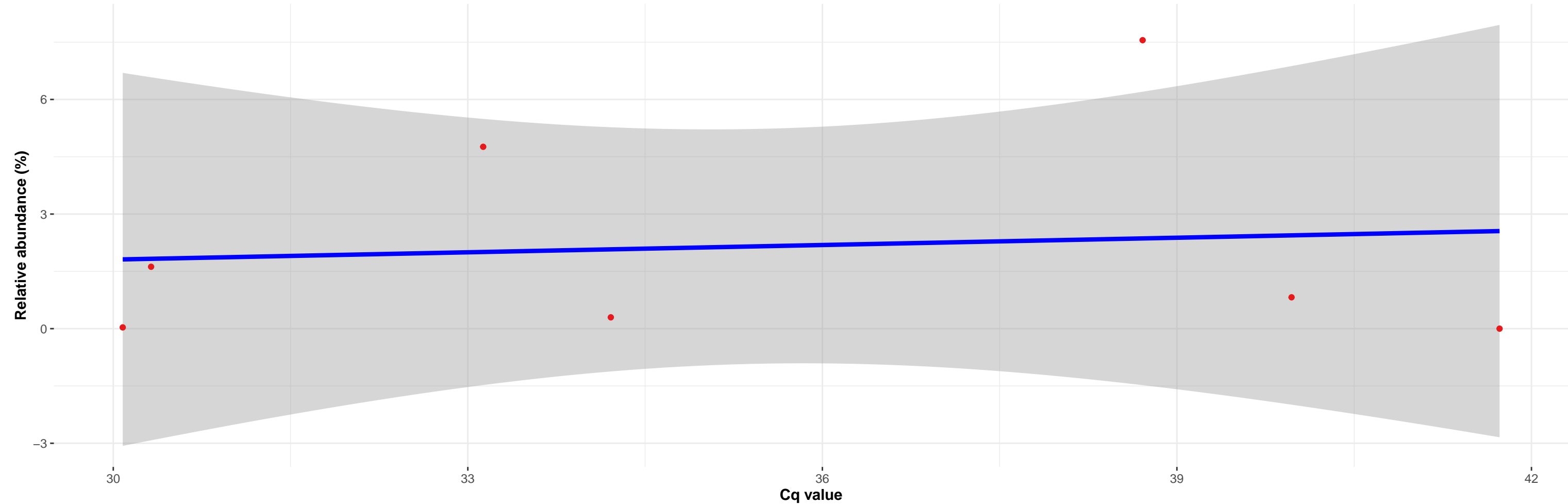


k\_\_Bacteria; p\_\_Firmicutes; c\_\_Clostridia; o\_\_Clostridiales; f\_\_Clostridiaceae 1; NA; NA

featureID: 1f1ddbae27b2e40cd4947dc079b0021e

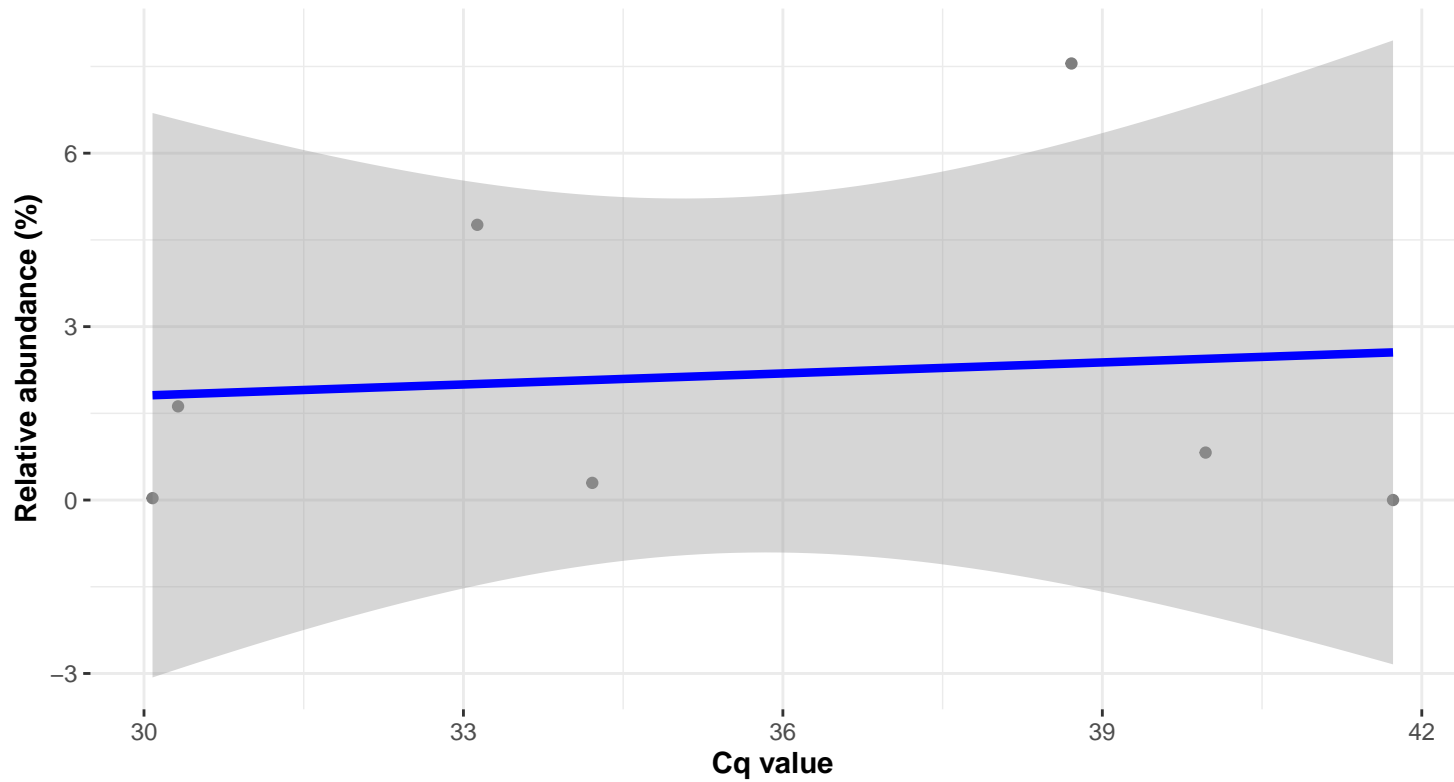
Correlation with all samples

$\log_e(S) = 4.159$ ,  $p = 0.760$ ,  $\hat{\rho}_{\text{Spearman}} = -0.143$ ,  $\text{CI}_{95\%} [-0.819, 0.699]$ ,  $n_{\text{pairs}} = 7$



Correlation within: Perch\_wild\_lake

$\log_e(S) = 4.159$ ,  $p = 0.760$ ,  $\hat{\rho}_{\text{Spearman}} = -0.143$ ,  $\text{CI}_{95\%} [-0.819, 0.699]$ ,  $n_{\text{pairs}} = 7$

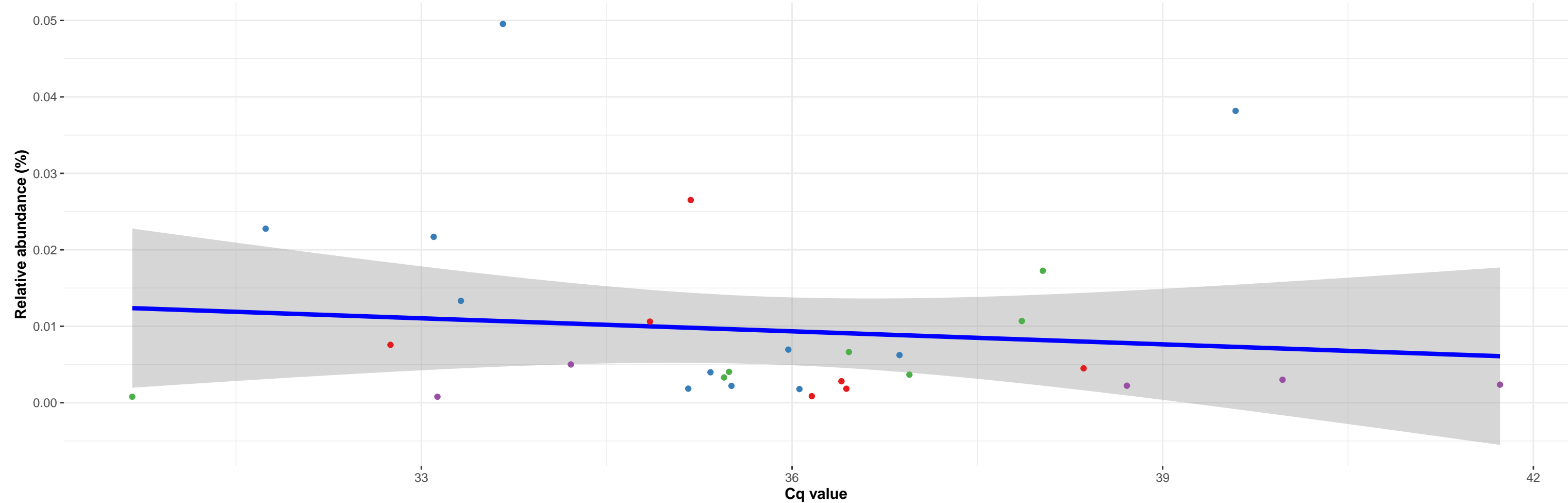


k\_\_Bacteria; p\_\_Proteobacteria; c\_\_Gammaproteobacteria; o\_\_Pseudomonadales; f\_\_Pseudomonadaceae; g\_\_Pseudomonas; NA

featureID: af190b852cec0d6eb78c15eb0e8777e0

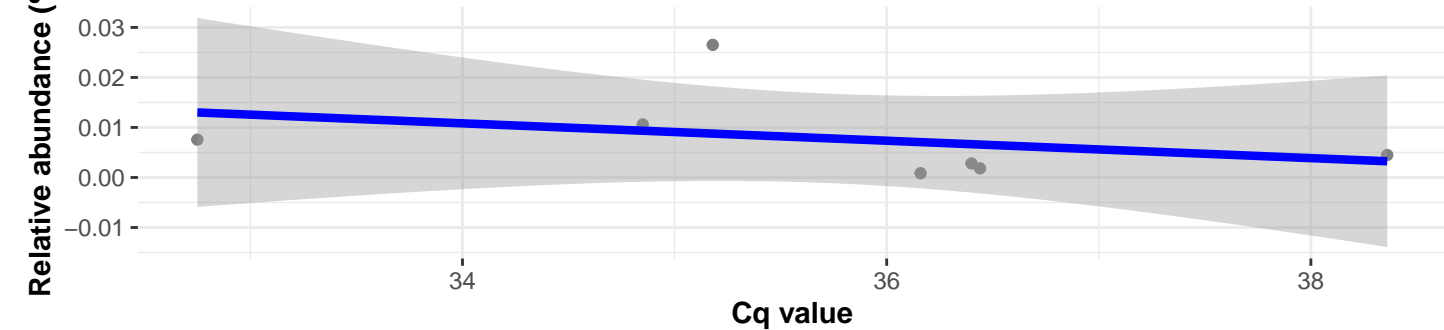
Correlation with all samples

$\log_e(S) = 8.516$ ,  $p = 0.561$ ,  $\hat{\rho}_{\text{Spearman}} = -0.111$ ,  $CI_{95\%} [-0.462, 0.270]$ ,  $n_{\text{pairs}} = 30$



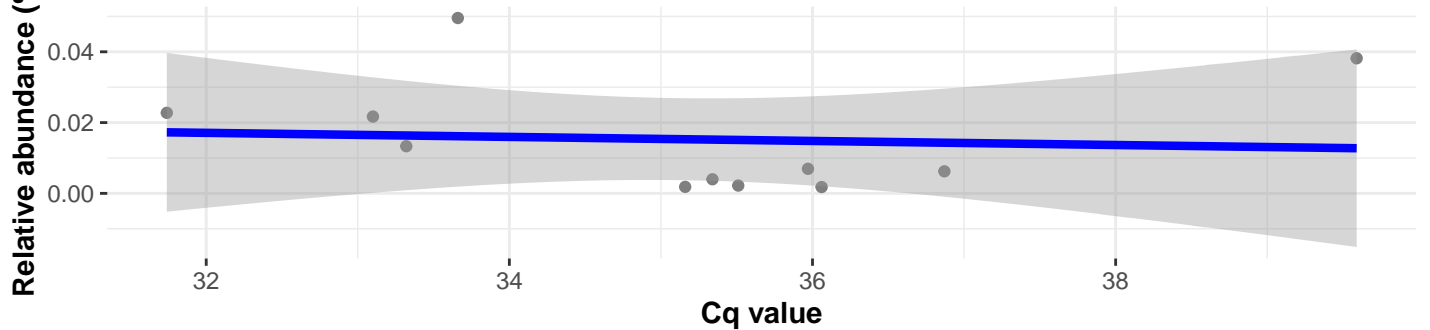
Correlation within: Tilapia\_farmed\_pond

$\log_e(S) = 4.454$ ,  $p = 0.215$ ,  $\hat{\rho}_{\text{Spearman}} = -0.536$ ,  $CI_{95\%} [-0.923, 0.389]$ ,  $n_{\text{pairs}} = 7$



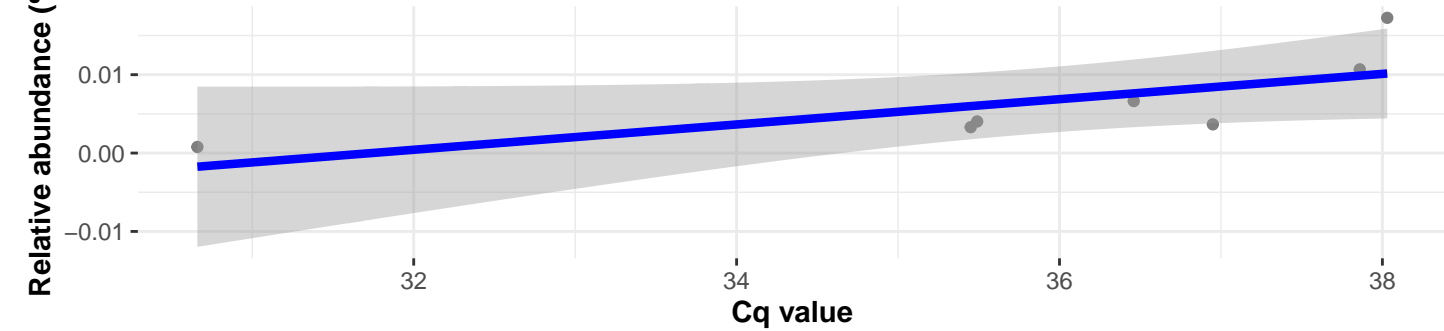
Correlation within: Tilapia\_farmed\_lake

$\log_e(S) = 5.663$ ,  $p = 0.355$ ,  $\hat{\rho}_{\text{Spearman}} = -0.309$ ,  $CI_{95\%} [-0.775, 0.375]$ ,  $n_{\text{pairs}} = 11$



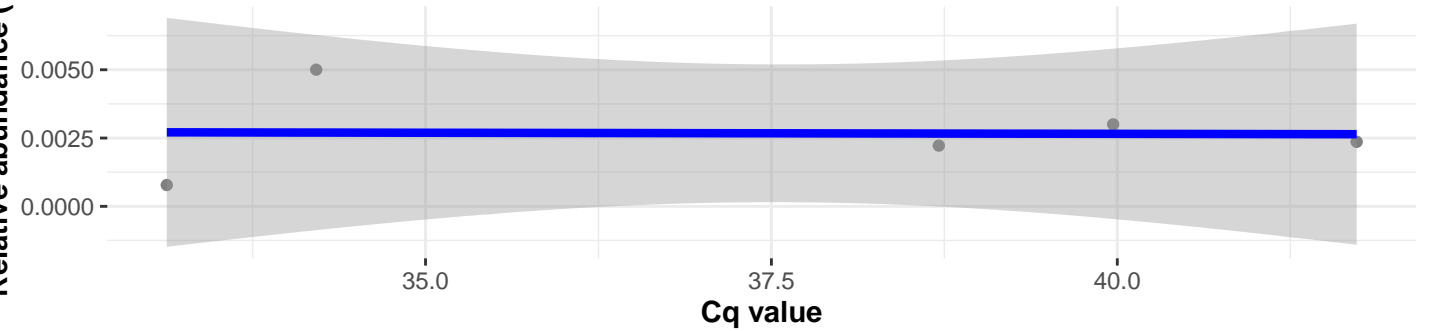
Correlation within: Tilapia\_wild\_lake

$\log_e(S) = 1.792$ ,  $p = 0.007$ ,  $\hat{\rho}_{\text{Spearman}} = 0.893$ ,  $CI_{95\%} [0.403, 0.985]$ ,  $n_{\text{pairs}} = 7$



Correlation within: Perch\_wild\_lake

$\log_e(S) = 2.639$ ,  $p = 0.624$ ,  $\hat{\rho}_{\text{Spearman}} = 0.300$ ,  $CI_{95\%} [-0.807, 0.940]$ ,  $n_{\text{pairs}} = 5$



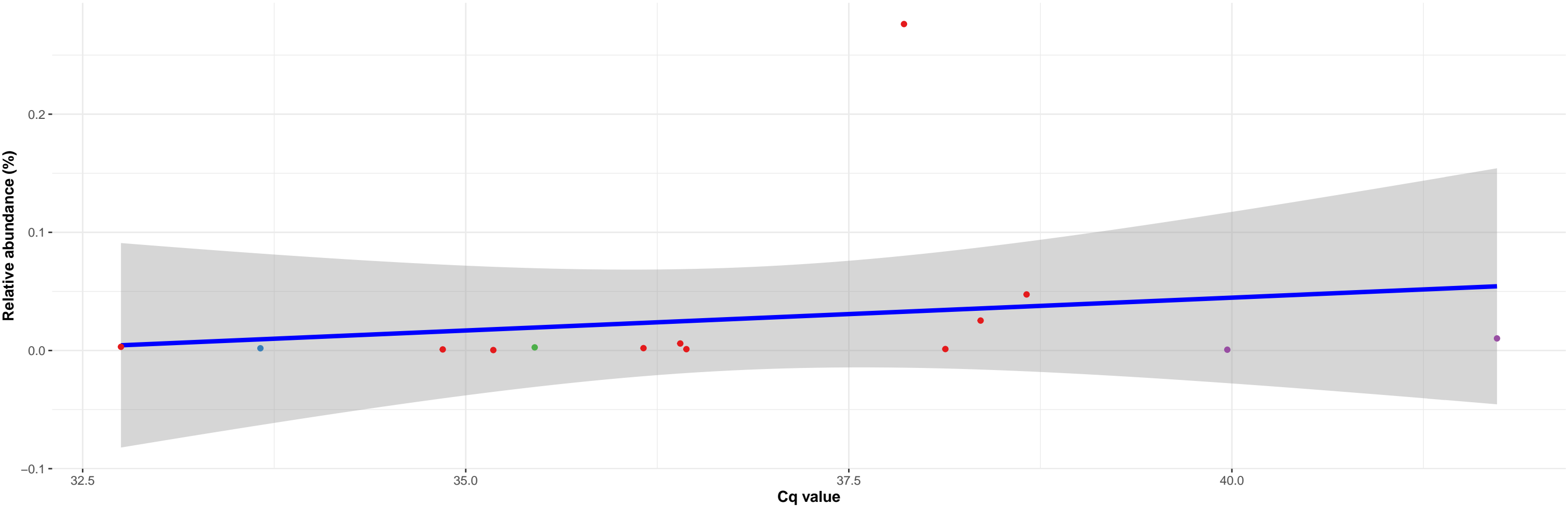


k\_\_Bacteria; p\_\_Proteobacteria; c\_\_Alphaproteobacteria; o\_\_Rhizobiales; f\_\_Xanthobacteraceae; g\_\_Bradyrhizobium; NA

featureID: 9db2817f5c42be6a7bcbca662959982d

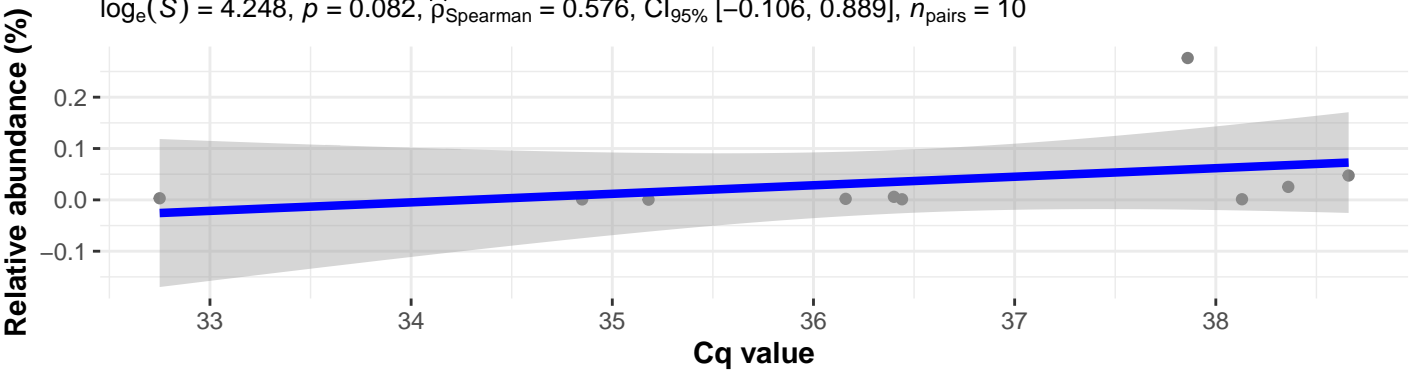
Correlation with all samples

$\log_e(S) = 5.724$ ,  $p = 0.253$ ,  $\hat{\rho}_{\text{Spearman}} = 0.327$ ,  $CI_{95\%} [-0.262, 0.739]$ ,  $n_{\text{pairs}} = 14$

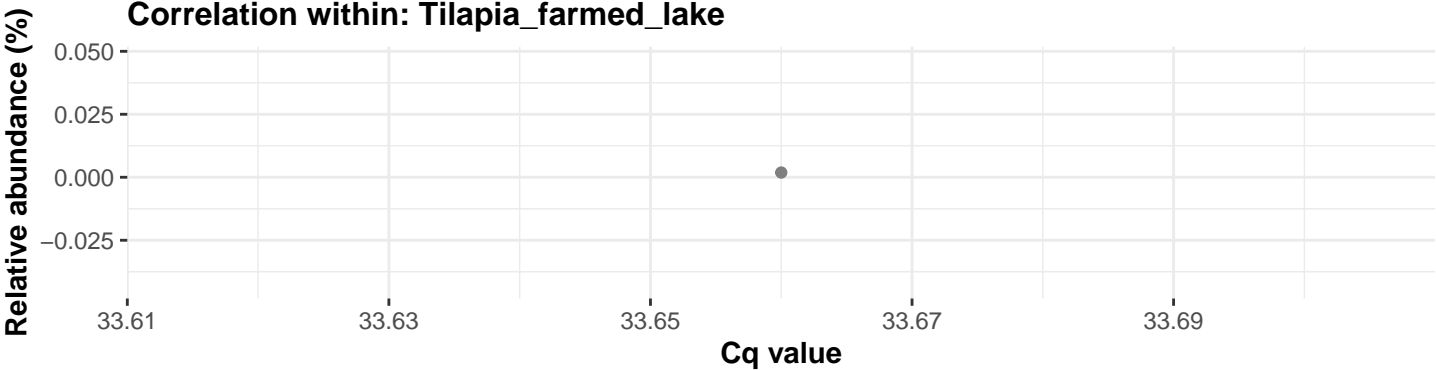


Correlation within: Tilapia\_farmed\_pond

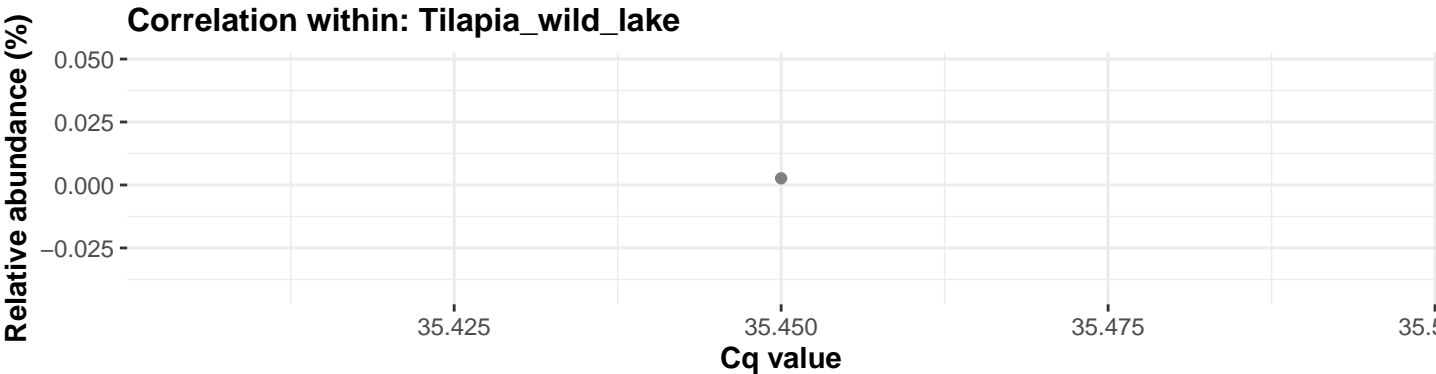
$\log_e(S) = 4.248$ ,  $p = 0.082$ ,  $\hat{\rho}_{\text{Spearman}} = 0.576$ ,  $CI_{95\%} [-0.106, 0.889]$ ,  $n_{\text{pairs}} = 10$



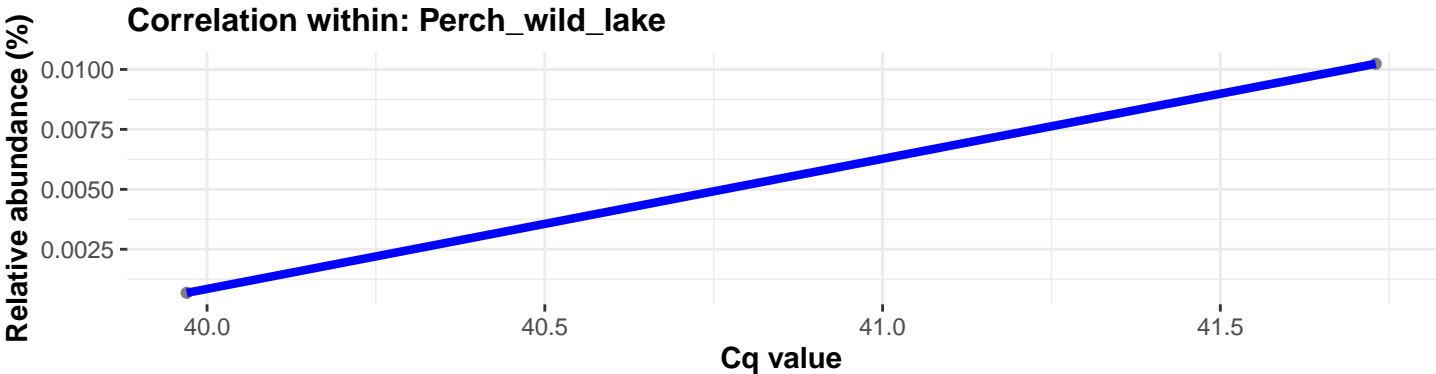
Correlation within: Tilapia\_farmed\_lake



Correlation within: Tilapia\_wild\_lake



Correlation within: Perch\_wild\_lake

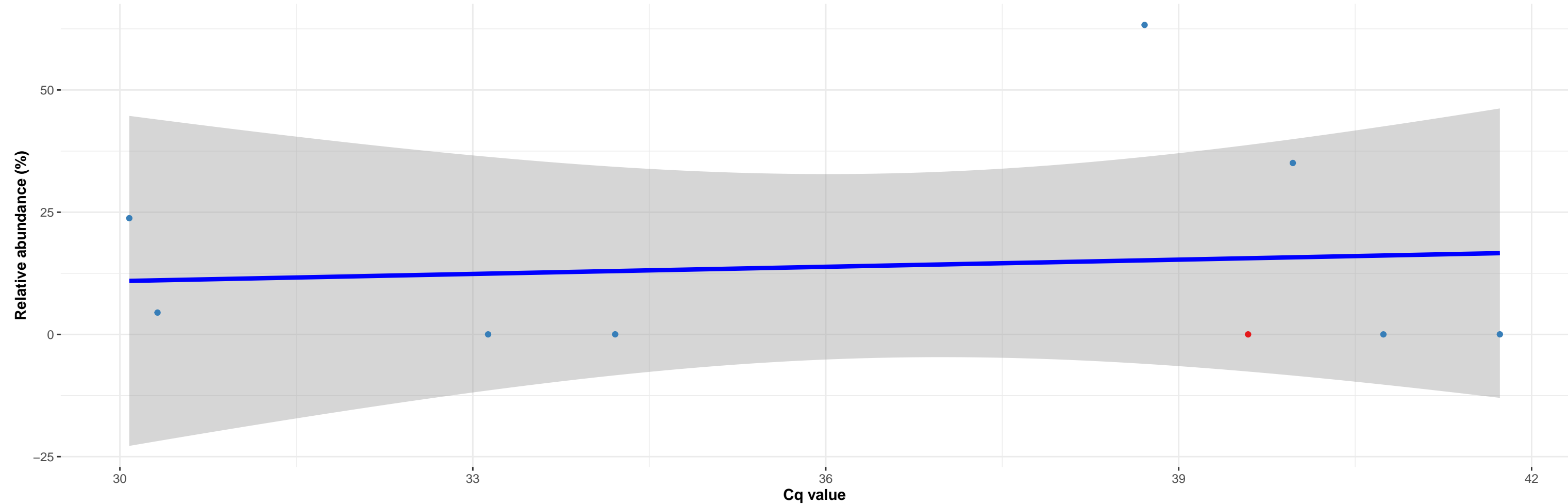


k\_\_Bacteria; p\_\_Firmicutes; c\_\_Clostridia; o\_\_Clostridiales; f\_\_Clostridiaceae 1; NA; NA

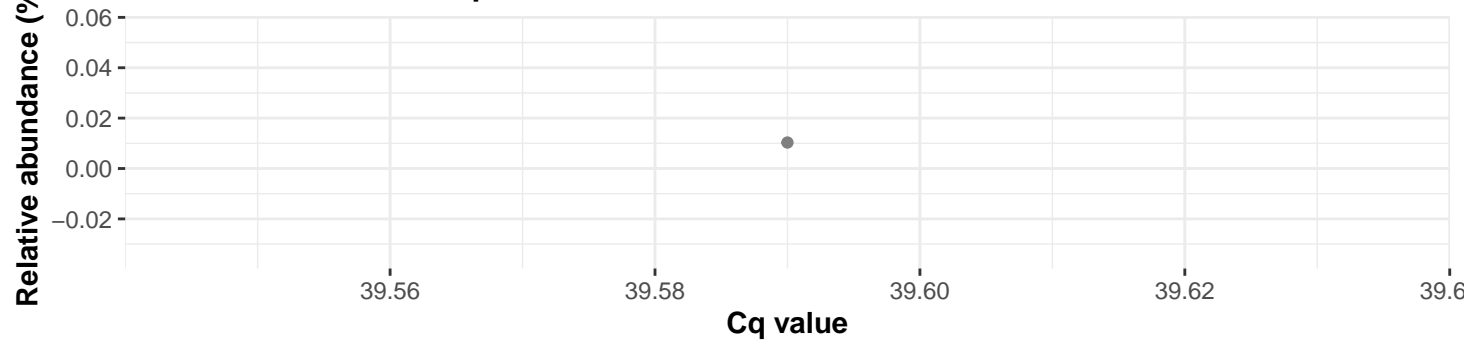
featureID: 750438ef469a6a58cdf16b89f540188b

Correlation with all samples

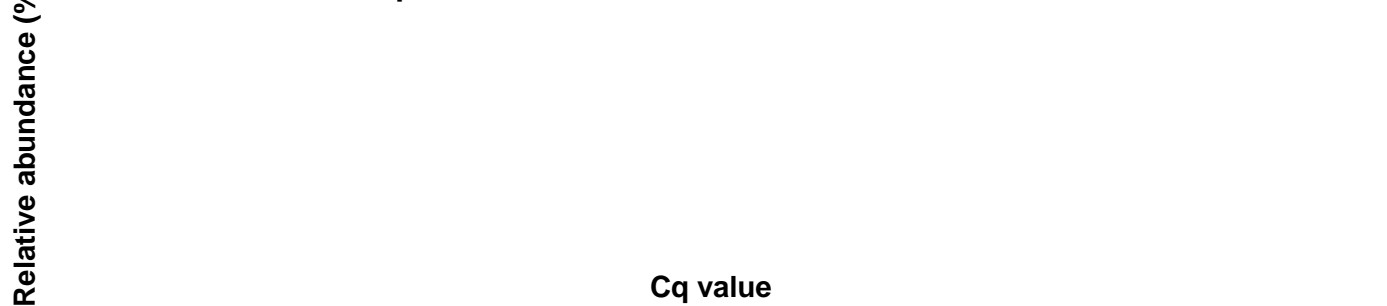
$\log_e(S) = 5.075$ ,  $p = 0.381$ ,  $\hat{\rho}_{\text{Spearman}} = -0.333$ ,  $\text{CI}_{95\%} [-0.824, 0.444]$ ,  $n_{\text{pairs}} = 9$



Correlation within: Tilapia\_farmed\_lake

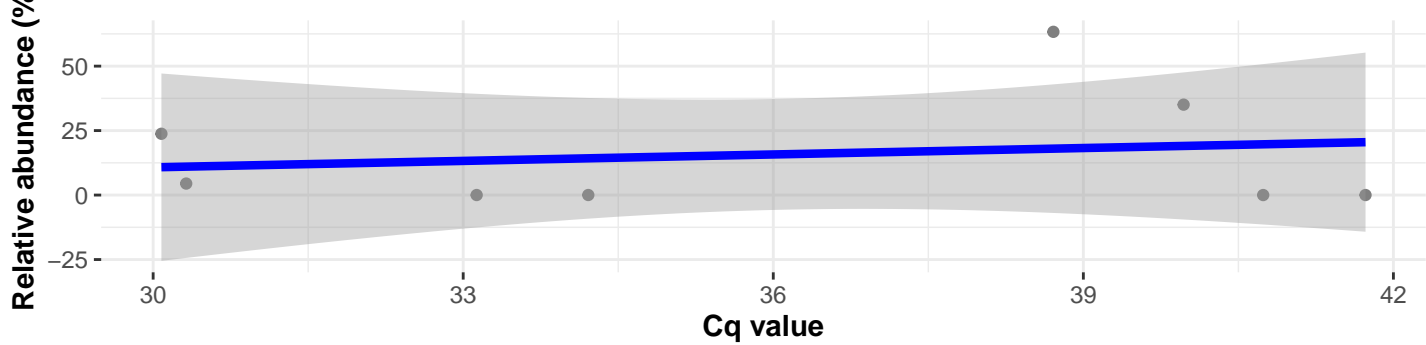


Correlation within: Tilapia\_wild\_lake



Correlation within: Perch\_wild\_lake

$\log_e(S) = 4.663$ ,  $p = 0.531$ ,  $\hat{\rho}_{\text{Spearman}} = -0.262$ ,  $\text{CI}_{95\%} [-0.824, 0.561]$ ,  $n_{\text{pairs}} = 8$

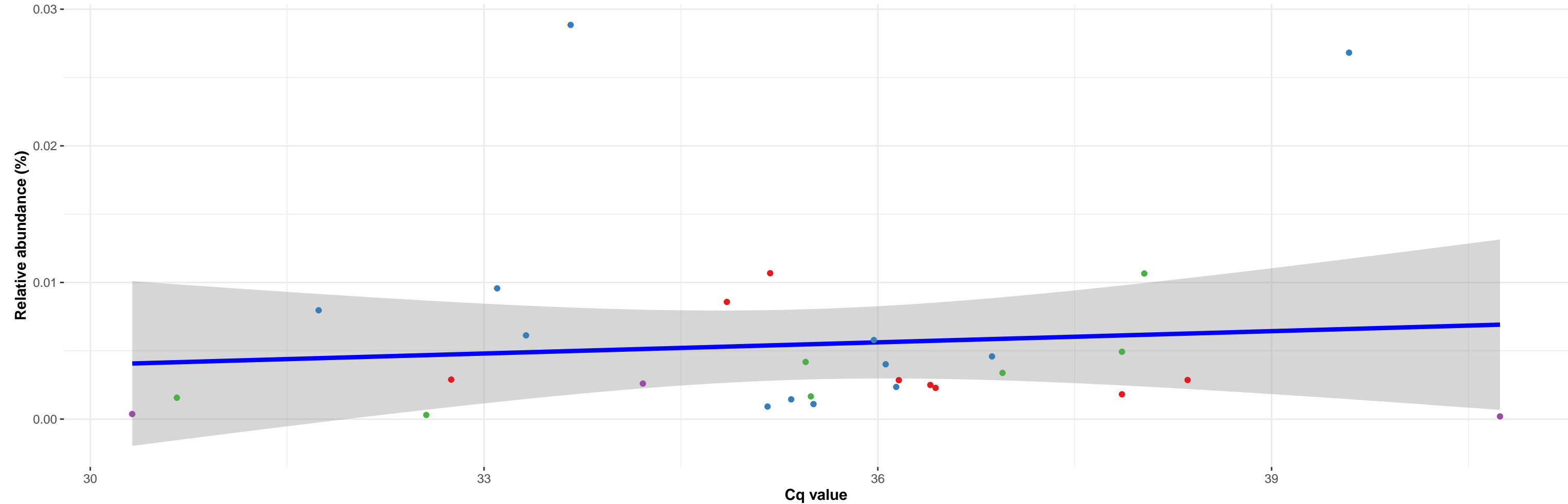


k\_\_Bacteria; p\_\_Proteobacteria; c\_\_Gammaproteobacteria; o\_\_Pseudomonadales; f\_\_Pseudomonadaceae; g\_\_Pseudomonas; NA

featureID: 5a90e7fe242256a5c625bd072bb3337

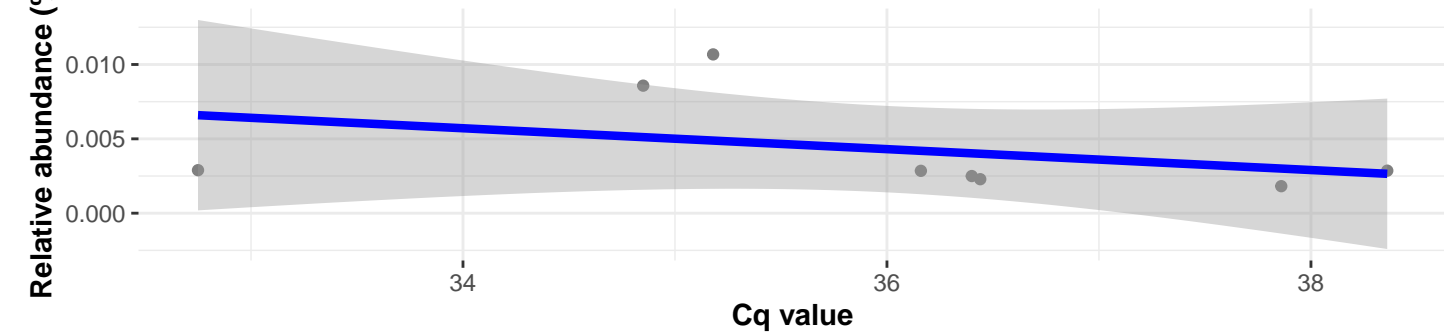
**Correlation with all samples**

$\log_e(S) = 8.351$ ,  $p = 0.762$ ,  $\hat{\rho}_{\text{Spearman}} = 0.058$ ,  $\text{CI}_{95\%} [-0.319, 0.419]$ ,  $n_{\text{pairs}} = 30$



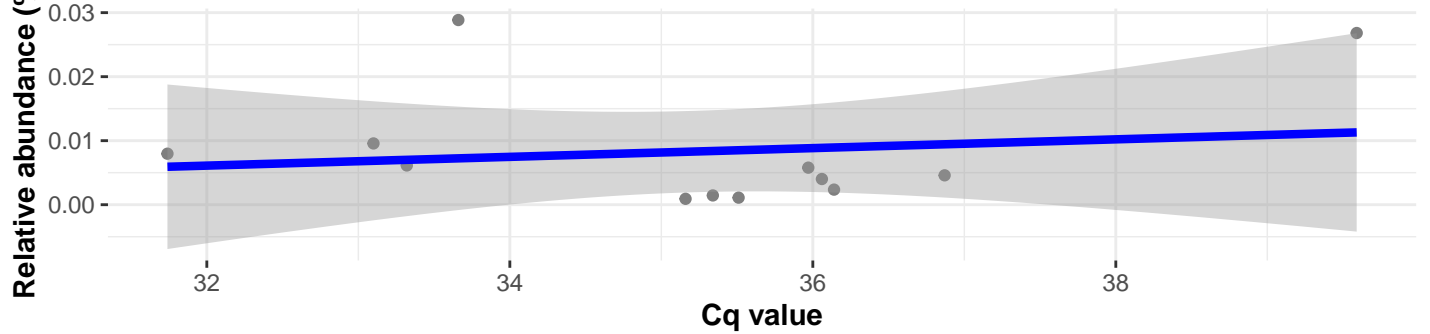
**Correlation within: Tilapia\_farmed\_pond**

$\log_e(S) = 4.942$ ,  $p = 0.071$ ,  $\hat{\rho}_{\text{Spearman}} = -0.667$ ,  $\text{CI}_{95\%} [-0.936, 0.097]$ ,  $n_{\text{pairs}} = 8$



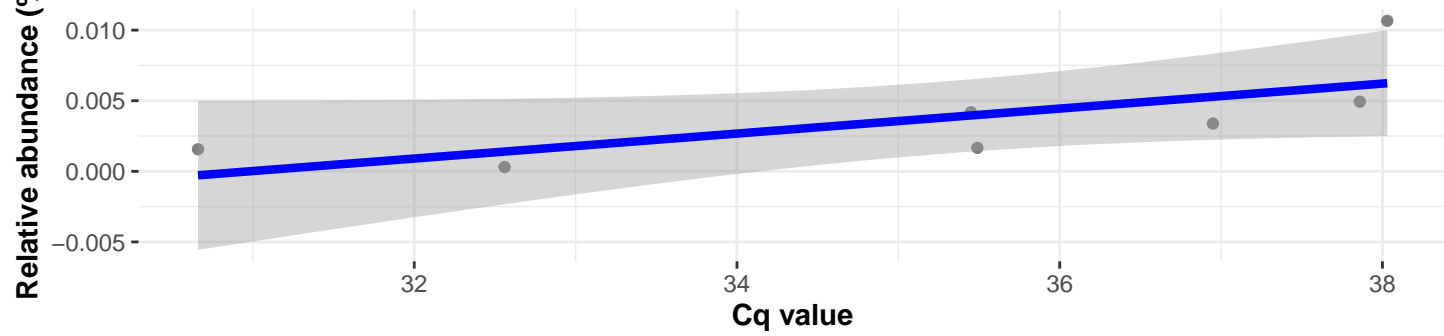
**Correlation within: Tilapia\_farmed\_lake**

$\log_e(S) = 5.846$ ,  $p = 0.513$ ,  $\hat{\rho}_{\text{Spearman}} = -0.210$ ,  $\text{CI}_{95\%} [-0.709, 0.430]$ ,  $n_{\text{pairs}} = 12$

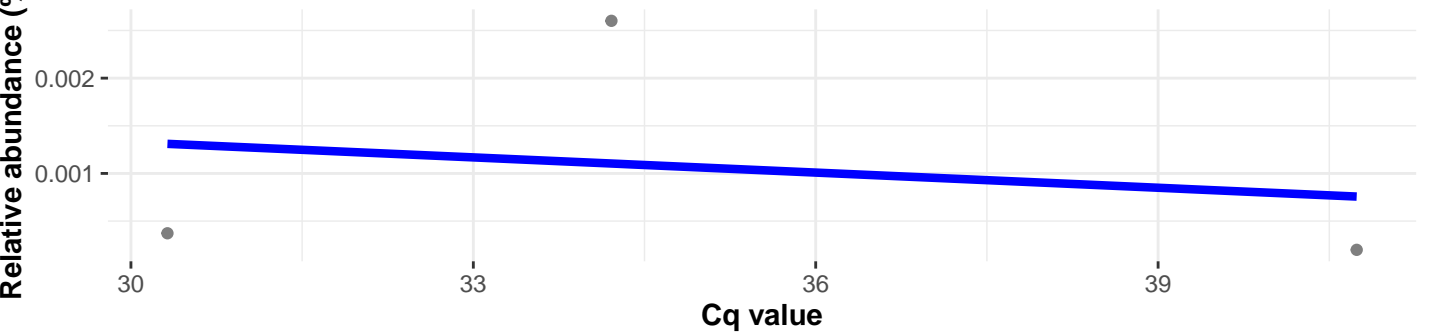


**Correlation within: Tilapia\_wild\_lake**

$\log_e(S) = 2.079$ ,  $p = 0.014$ ,  $\hat{\rho}_{\text{Spearman}} = 0.857$ ,  $\text{CI}_{95\%} [0.267, 0.980]$ ,  $n_{\text{pairs}} = 7$



**Correlation within: Perch\_wild\_lake**

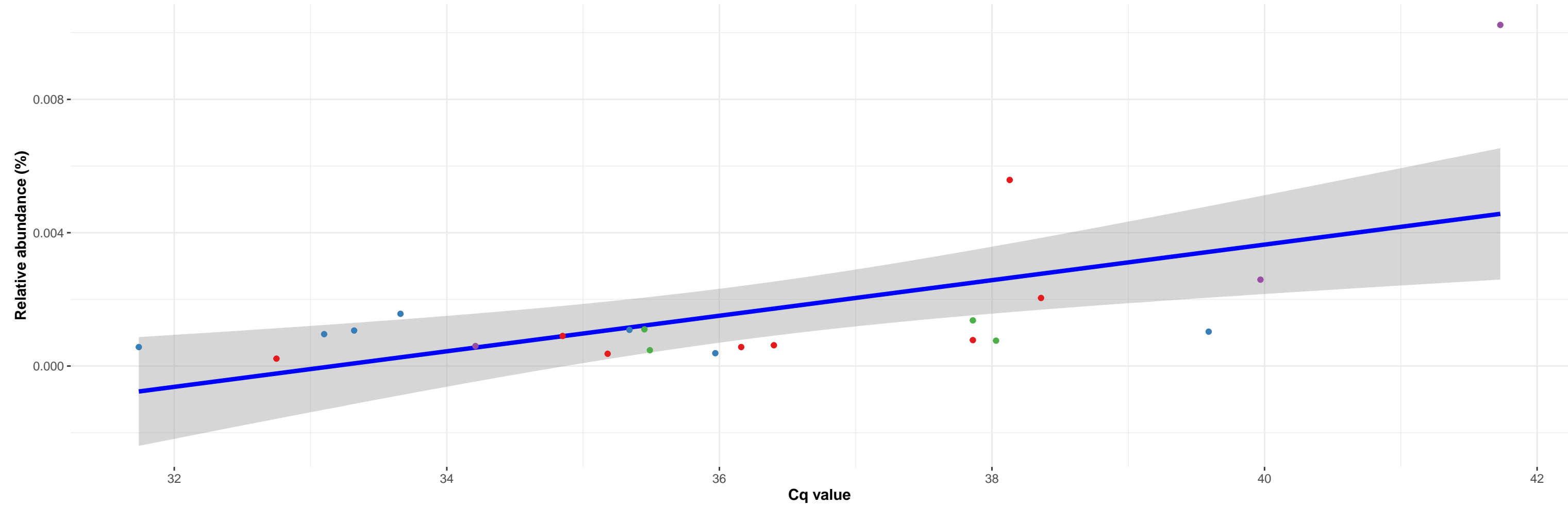


k\_\_Bacteria; p\_\_Proteobacteria; c\_\_Alphaproteobacteria; o\_\_Rhizobiales; f\_\_Xanthobacteraceae; NA; NA

featureID: 8f2bbe692f7aca0f2c3959c3cf312b1d

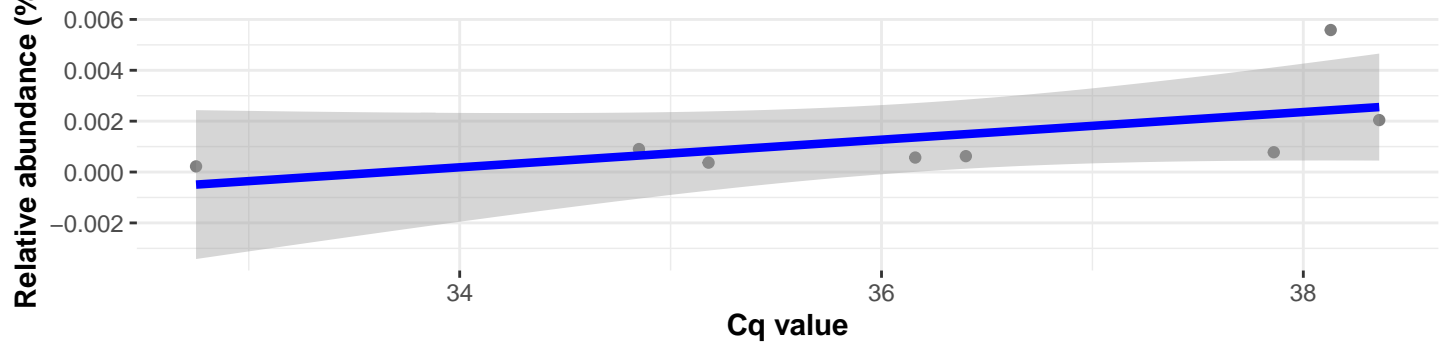
Correlation with all samples

$\log_e(S) = 6.760$ ,  $p = 0.015$ ,  $\hat{\rho}_{\text{Spearman}} = 0.513$ ,  $CI_{95\%} [0.103, 0.774]$ ,  $n_{\text{pairs}} = 22$



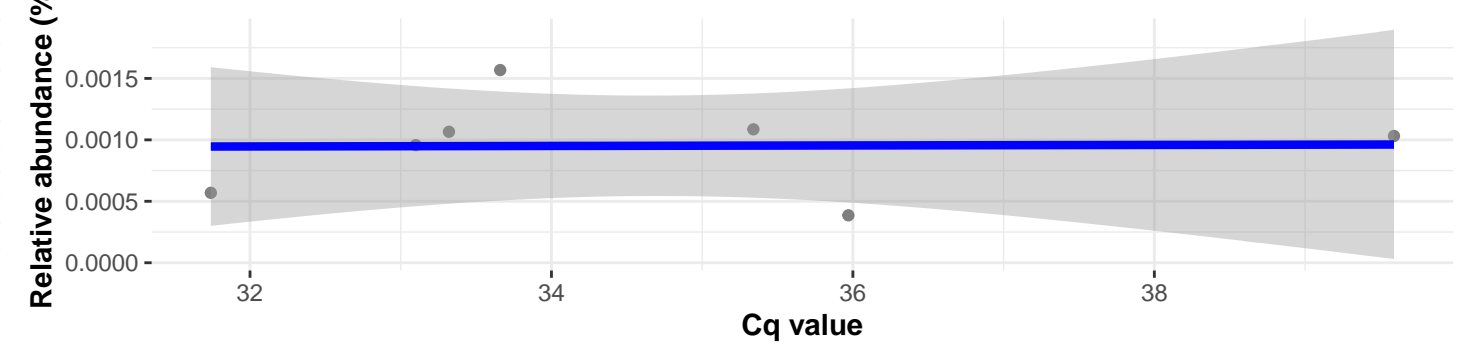
Correlation within: Tilapia\_farmed\_pond

$\log_e(S) = 3.091$ ,  $p = 0.037$ ,  $\hat{\rho}_{\text{Spearman}} = 0.738$ ,  $CI_{95\%} [0.044, 0.952]$ ,  $n_{\text{pairs}} = 8$

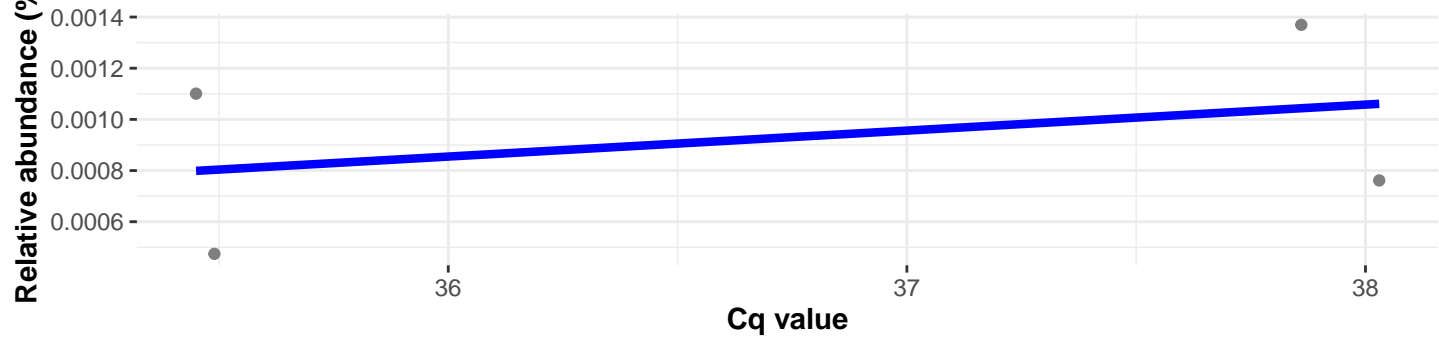


Correlation within: Tilapia\_farmed\_lake

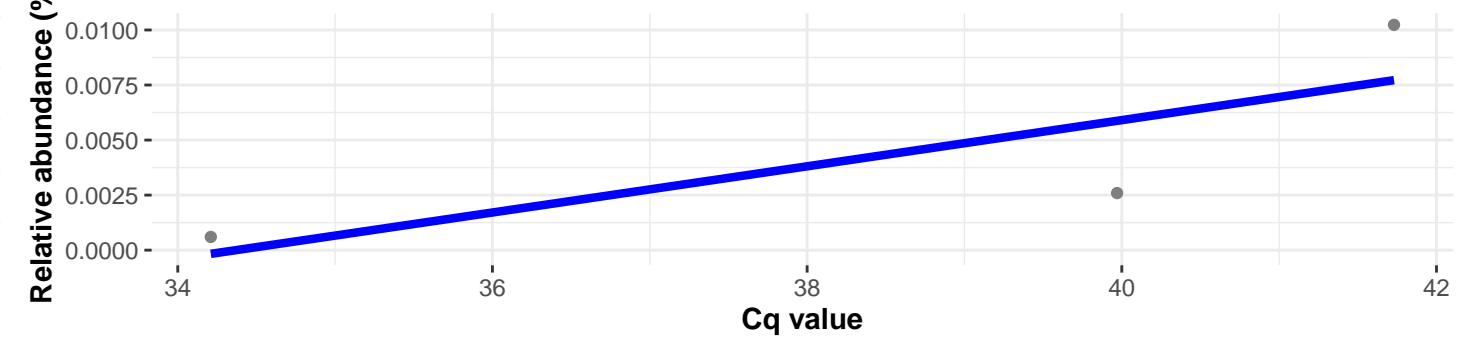
$\log_e(S) = 3.912$ ,  $p = 0.819$ ,  $\hat{\rho}_{\text{Spearman}} = 0.107$ ,  $CI_{95\%} [-0.717, 0.806]$ ,  $n_{\text{pairs}} = 7$



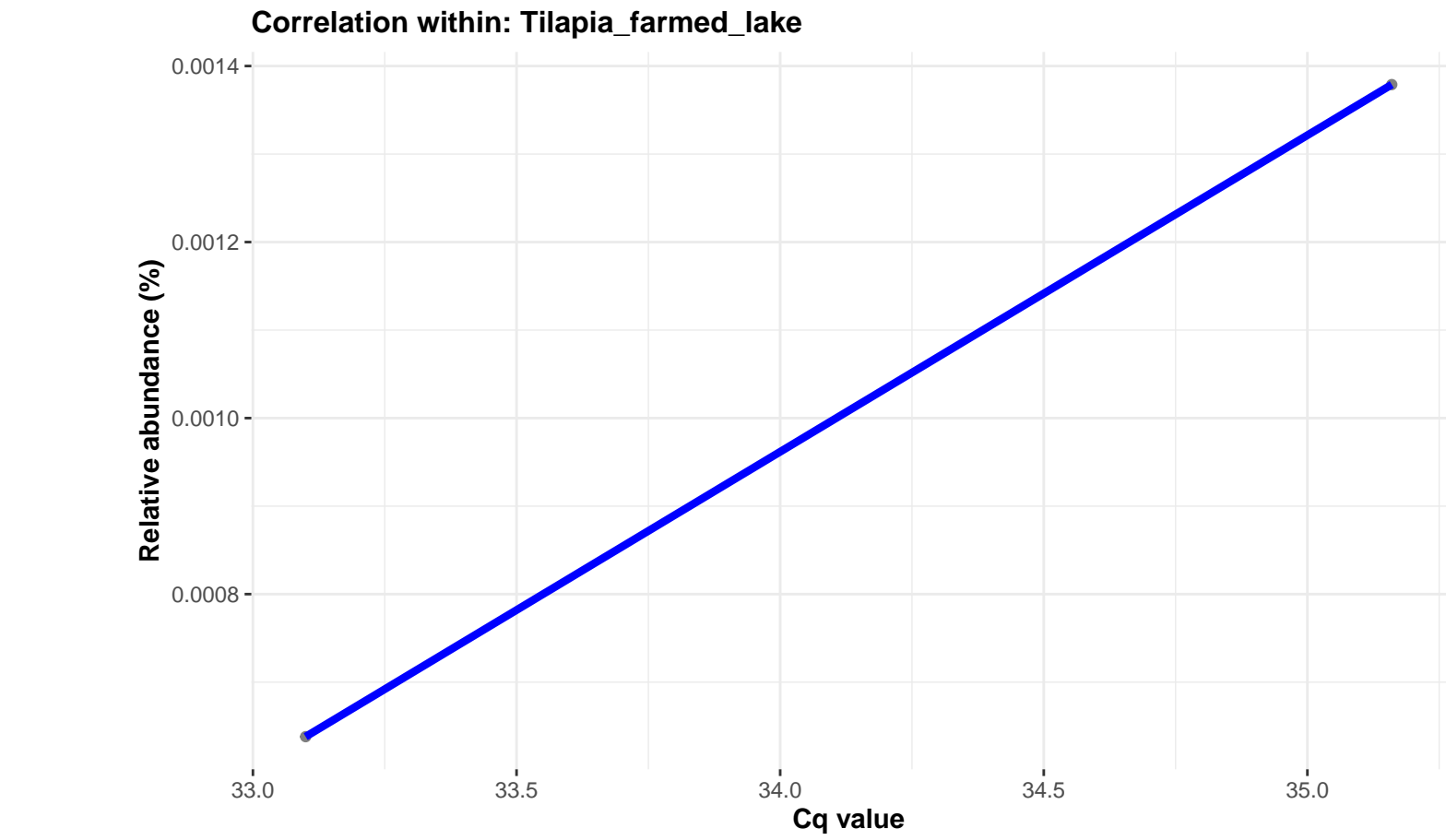
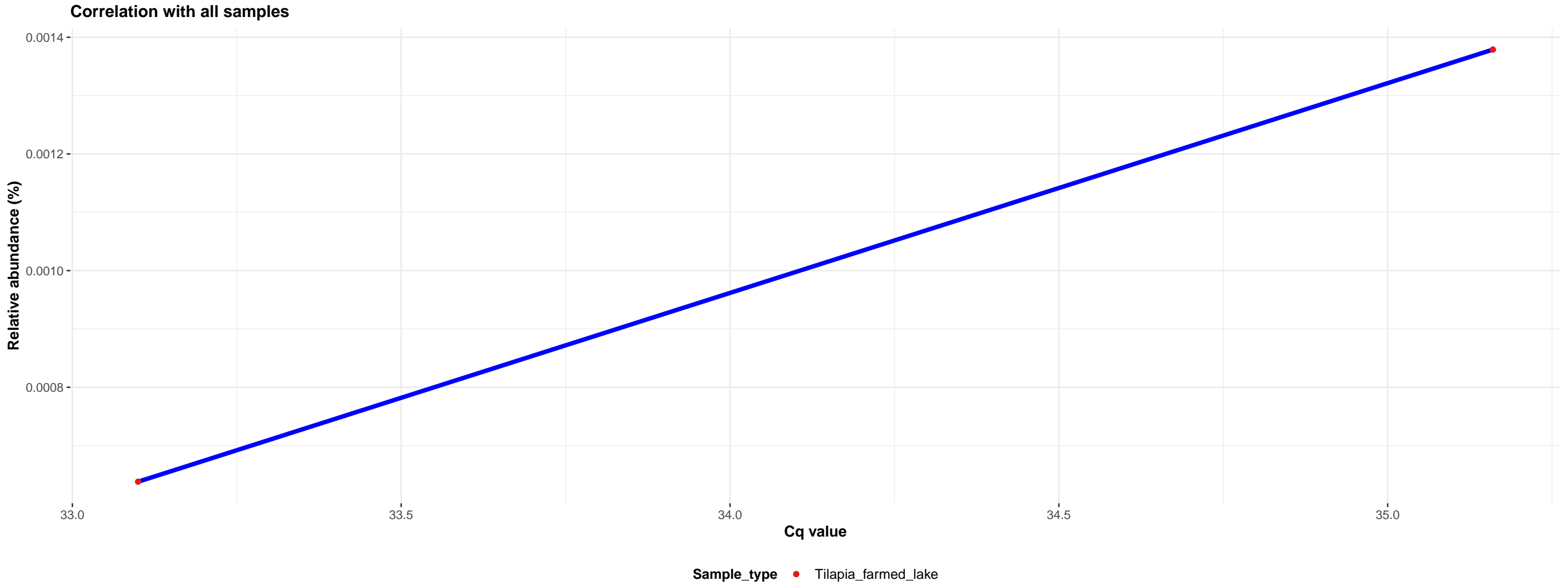
Correlation within: Tilapia\_wild\_lake



Correlation within: Perch\_wild\_lake



featureID: 4a7f867d55034fd3b2b4b28e0b1dda36

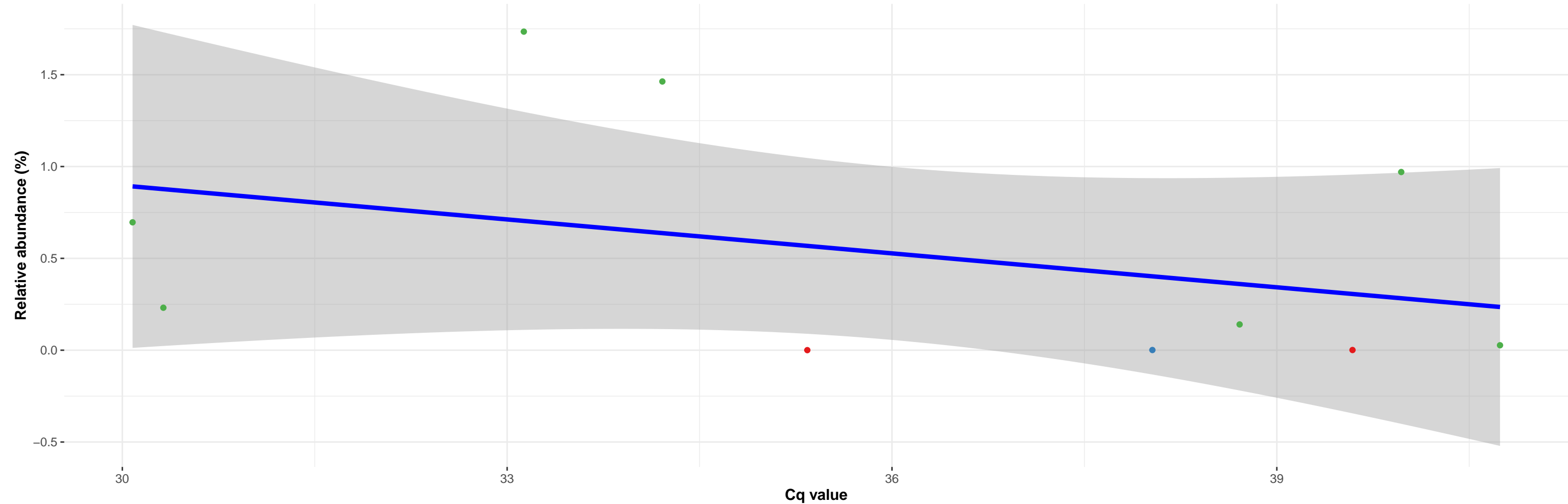


k\_\_Bacteria; p\_\_Firmicutes; c\_\_Clostridia; o\_\_Clostridiales; f\_\_Clostridiaceae 1; g\_\_Clostridium sensu stricto 1; NA

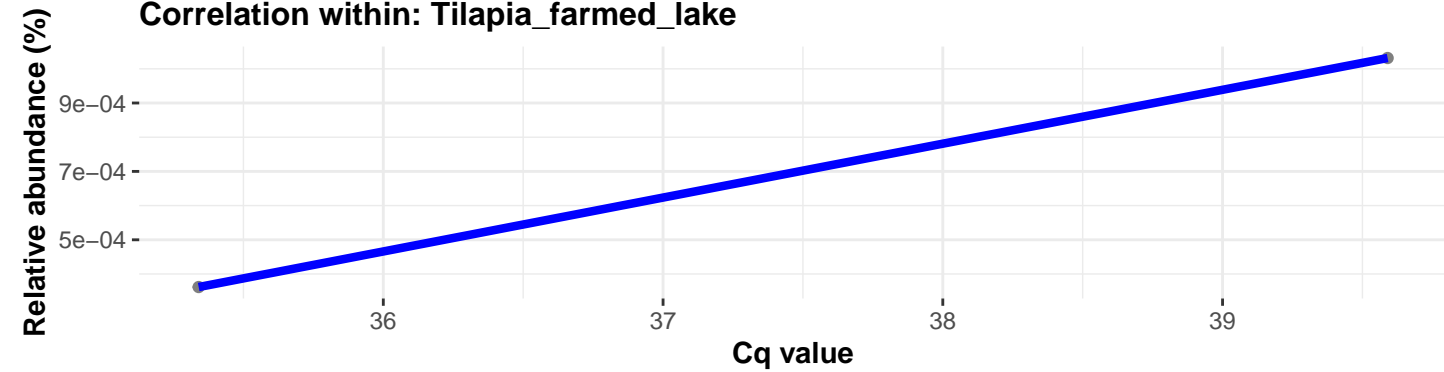
featureID: 8f6ff8174262993339a29e403091e900

Correlation with all samples

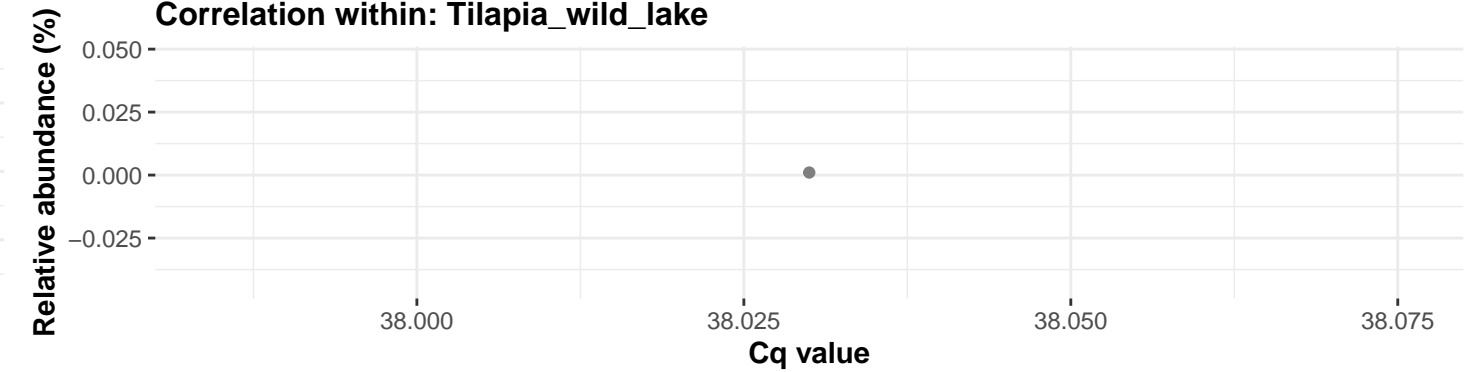
$\log_e(S) = 5.412$ ,  $p = 0.310$ ,  $\hat{\rho}_{\text{Spearman}} = -0.358$ ,  $\text{CI}_{95\%} [-0.813, 0.370]$ ,  $n_{\text{pairs}} = 10$



Correlation within: Tilapia\_farmed\_lake

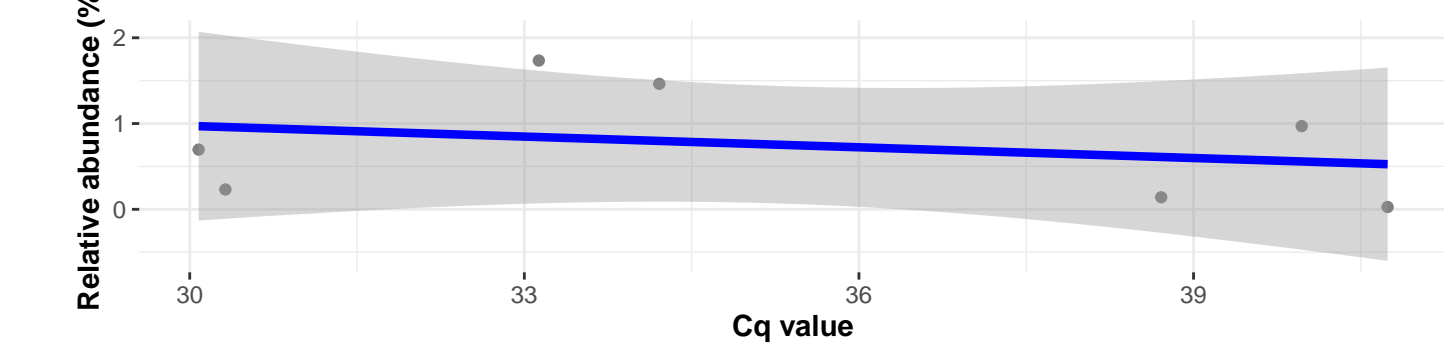


Correlation within: Tilapia\_wild\_lake



Correlation within: Perch\_wild\_lake

$\log_e(S) = 4.331$ ,  $p = 0.432$ ,  $\hat{\rho}_{\text{Spearman}} = -0.357$ ,  $\text{CI}_{95\%} [-0.882, 0.562]$ ,  $n_{\text{pairs}} = 7$

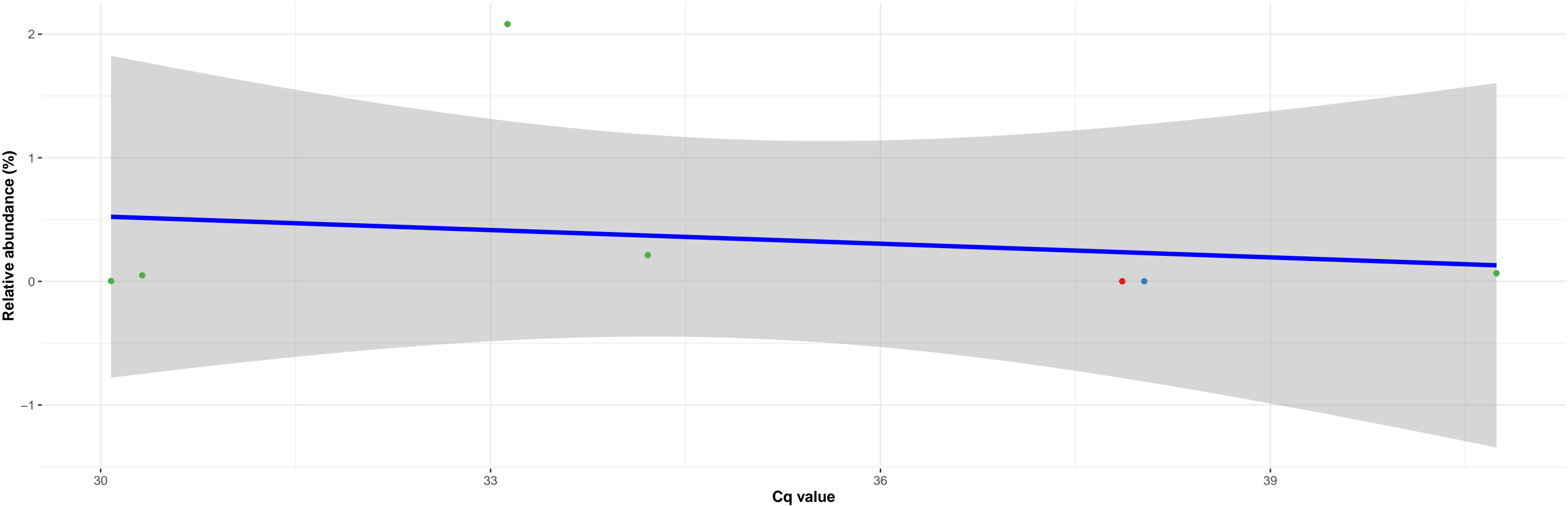


k\_\_Bacteria; p\_\_Firmicutes; c\_\_Clostridia; o\_\_Clostridiales; f\_\_Clostridiaceae 1; g\_\_Clostridium sensu stricto 1; NA

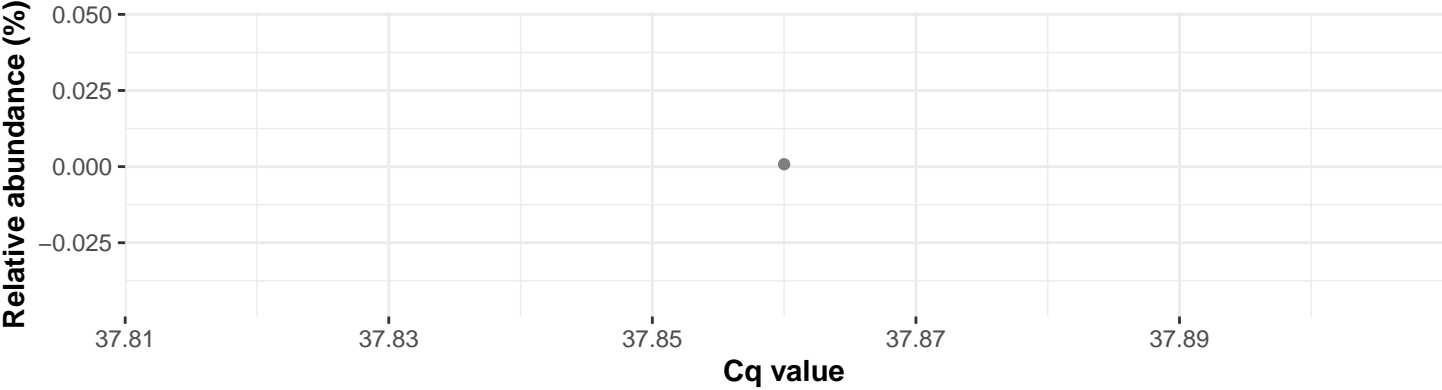
featureID: 444cb870909dcd447934e3eb70c73738

Correlation with all samples

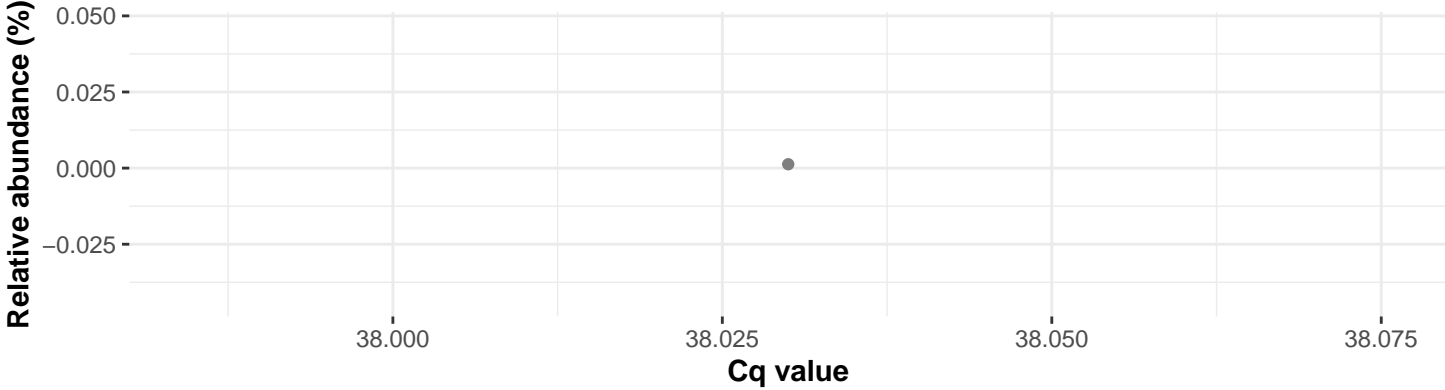
$\log_e(S) = 4.159$ ,  $p = 0.760$ ,  $\hat{\rho}_{\text{Spearman}} = -0.143$ ,  $\text{CI}_{95\%} [-0.819, 0.699]$ ,  $n_{\text{pairs}} = 7$



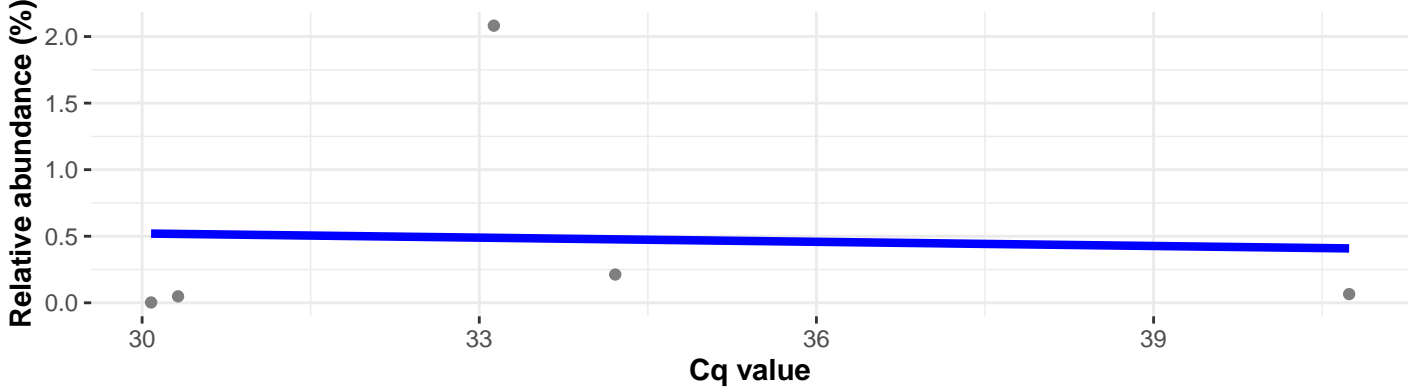
Correlation within: Tilapia\_farmed\_pond



Correlation within: Tilapia\_wild\_lake



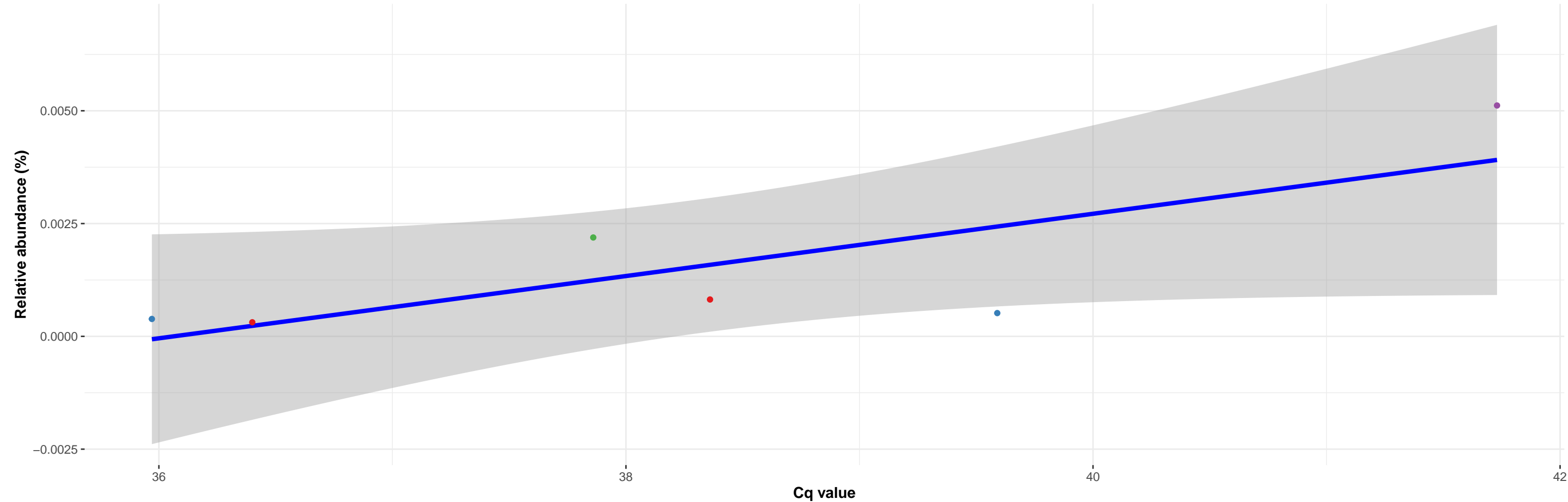
Correlation within: Perch\_wild\_lake



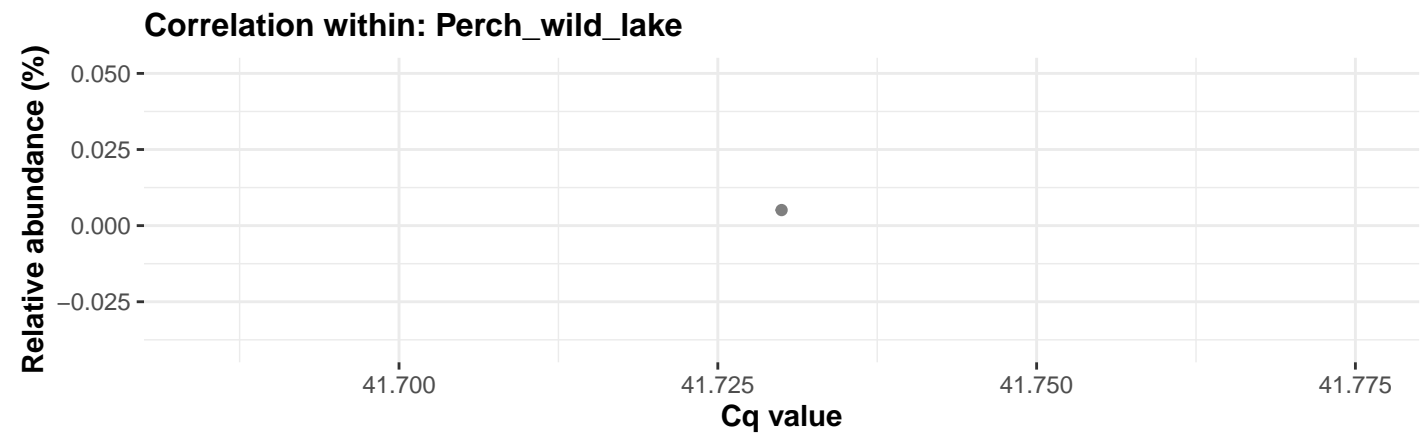
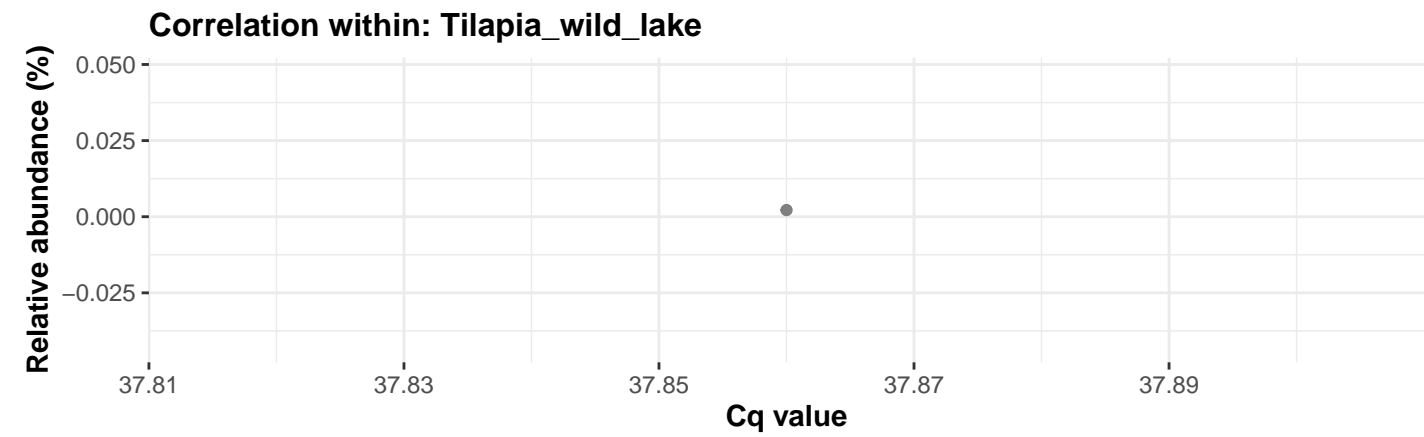
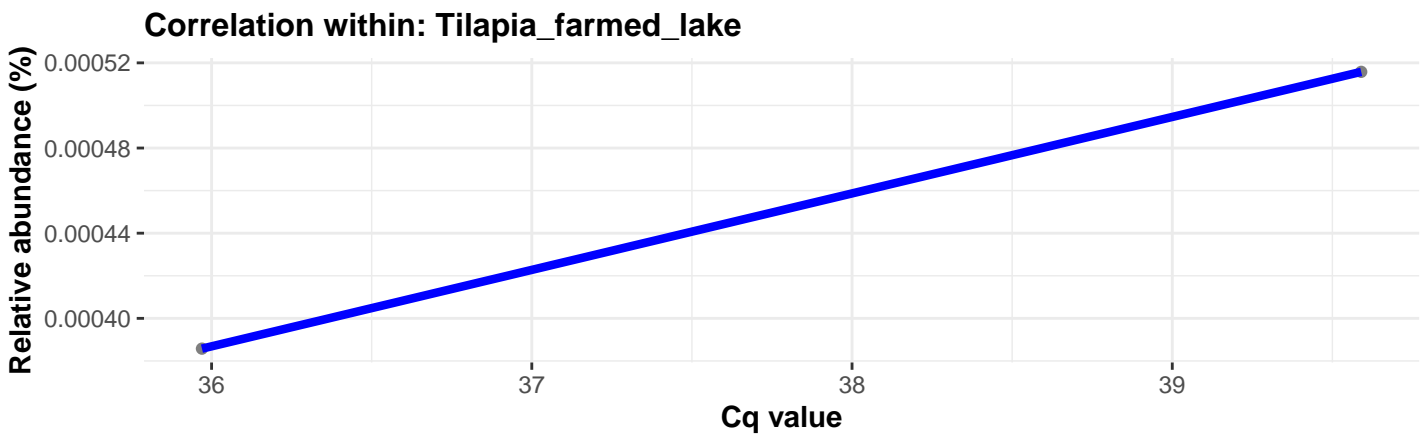
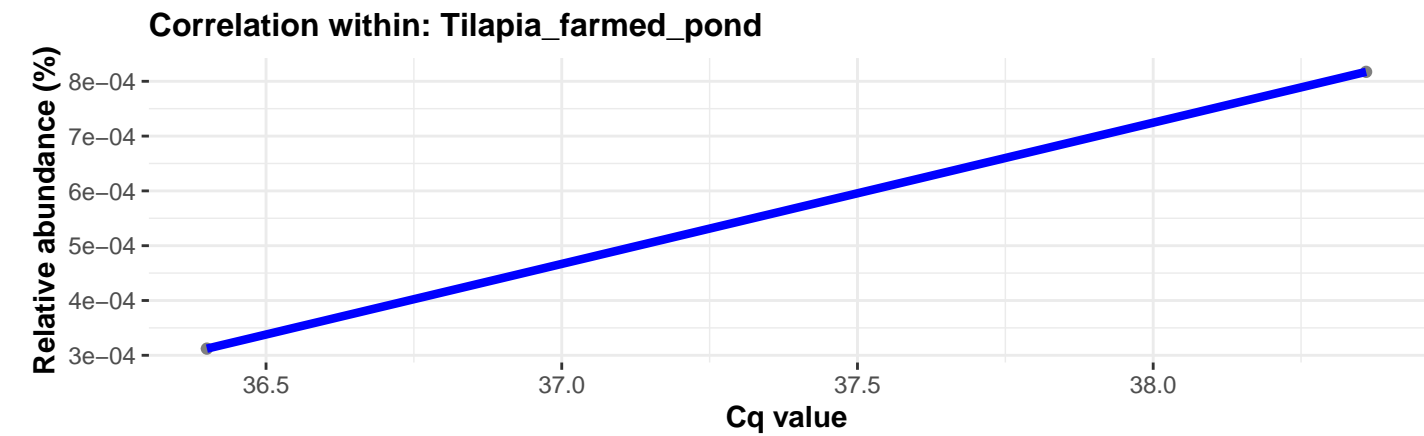
featureID: 10a4ba9050a60c9880edf695bd202b6e

Correlation with all samples

$\log_e(S) = 2.303$ ,  $p = 0.111$ ,  $\hat{\rho}_{\text{Spearman}} = 0.714$ ,  $CI_{95\%} [-0.263, 0.968]$ ,  $n_{\text{pairs}} = 6$



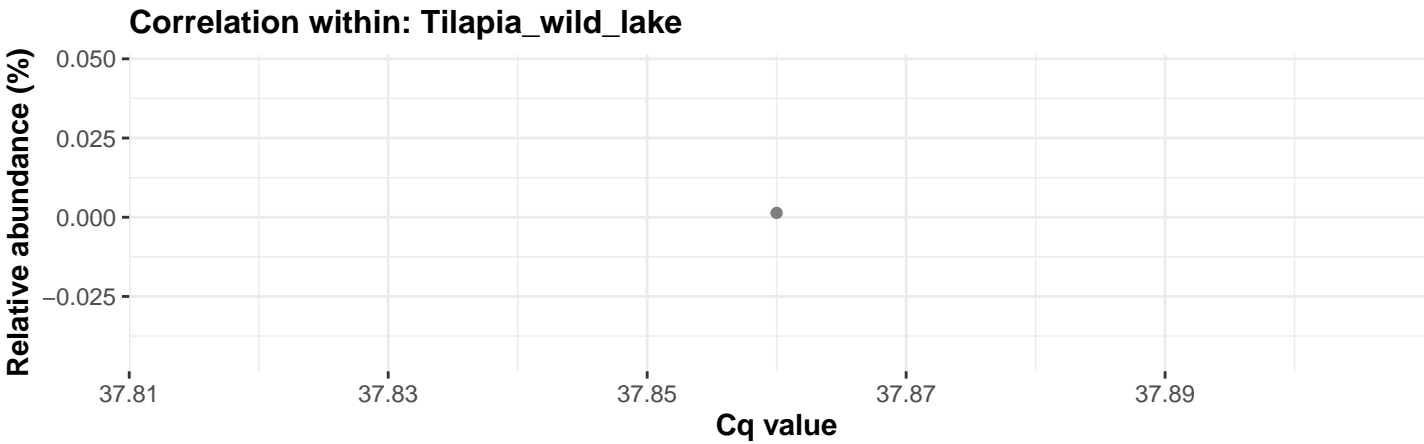
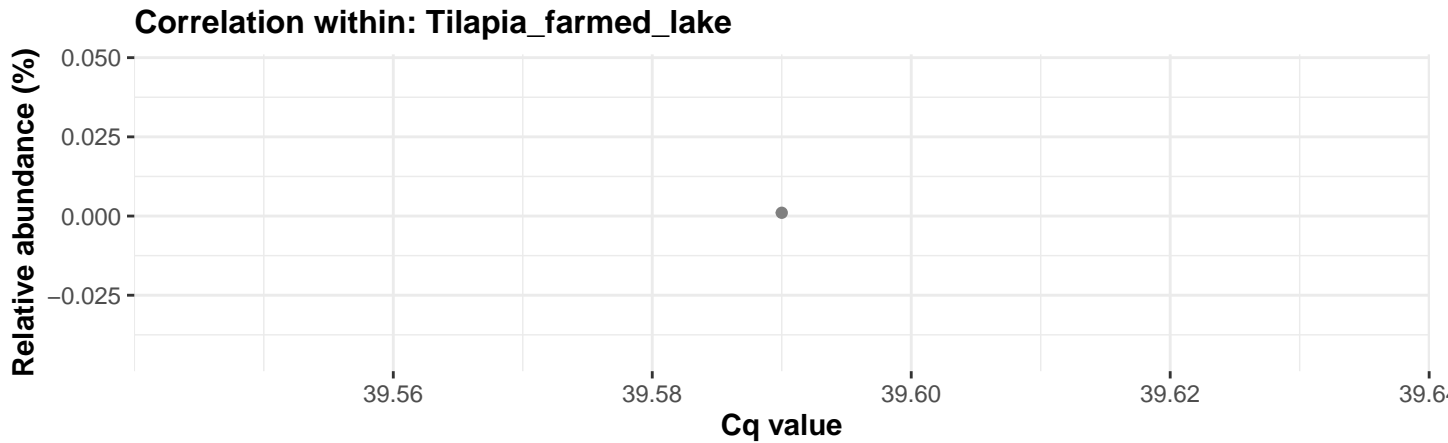
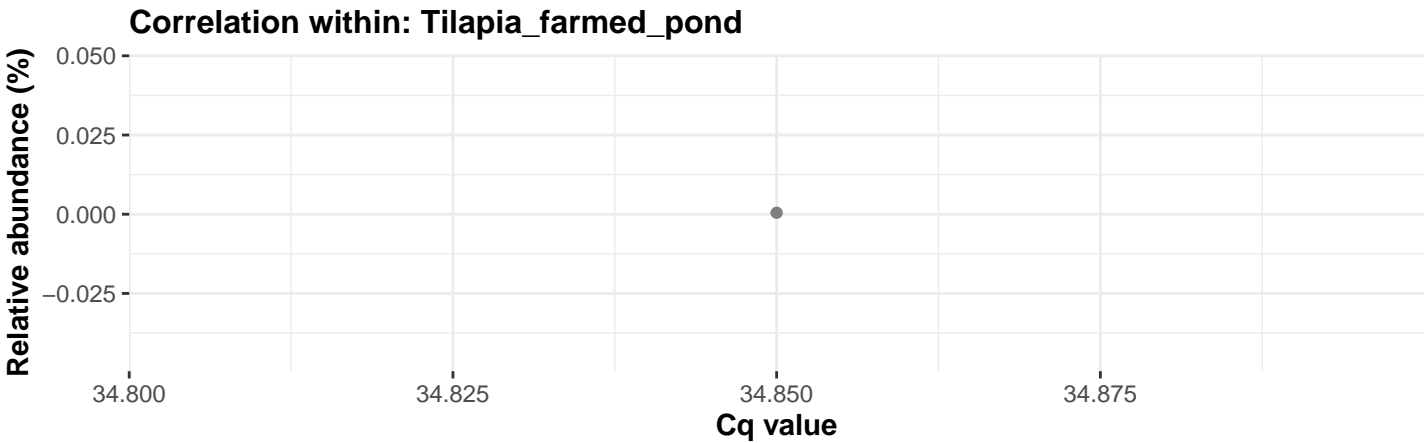
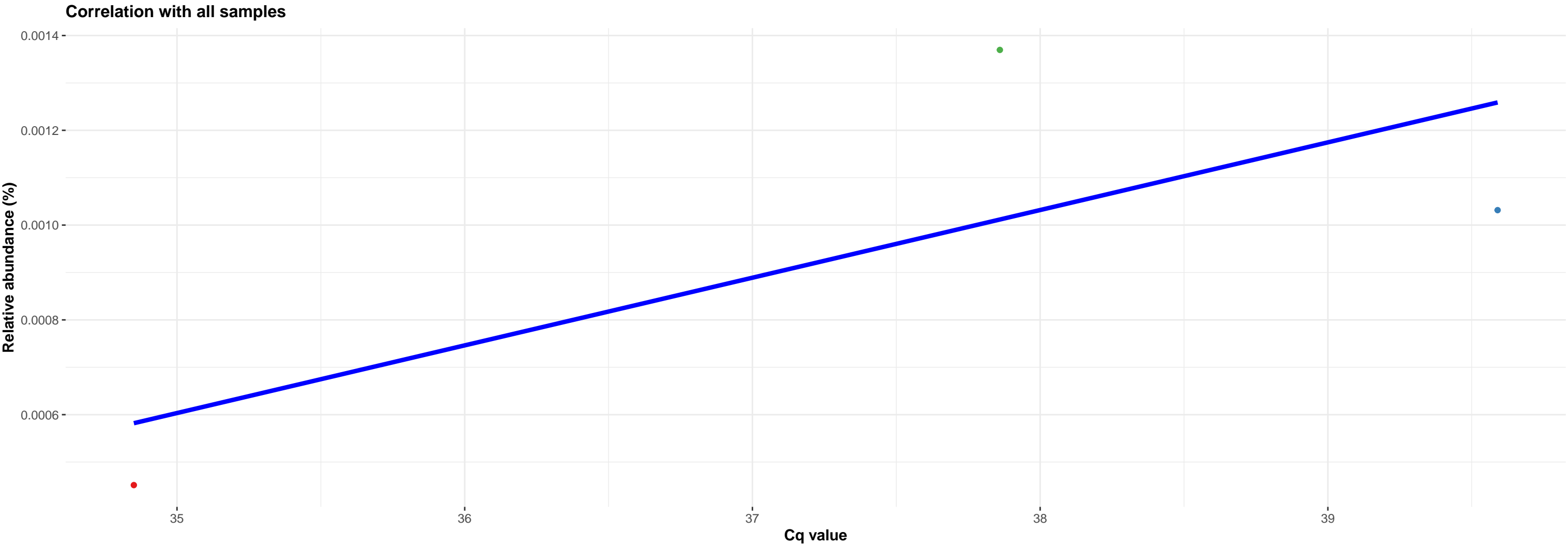
Sample\_type • Tilapia\_farmed\_pond • Tilapia\_farmed\_lake • Tilapia\_wild\_lake • Perch\_wild\_lake





k\_\_Bacteria; p\_\_Actinobacteria; c\_\_Actinobacteria; o\_\_Micrococcales; f\_\_Micrococcaceae; g\_\_Kocuria; s\_\_Kocuria marina

featureID: 19c88c43cefc0efae399898111815666

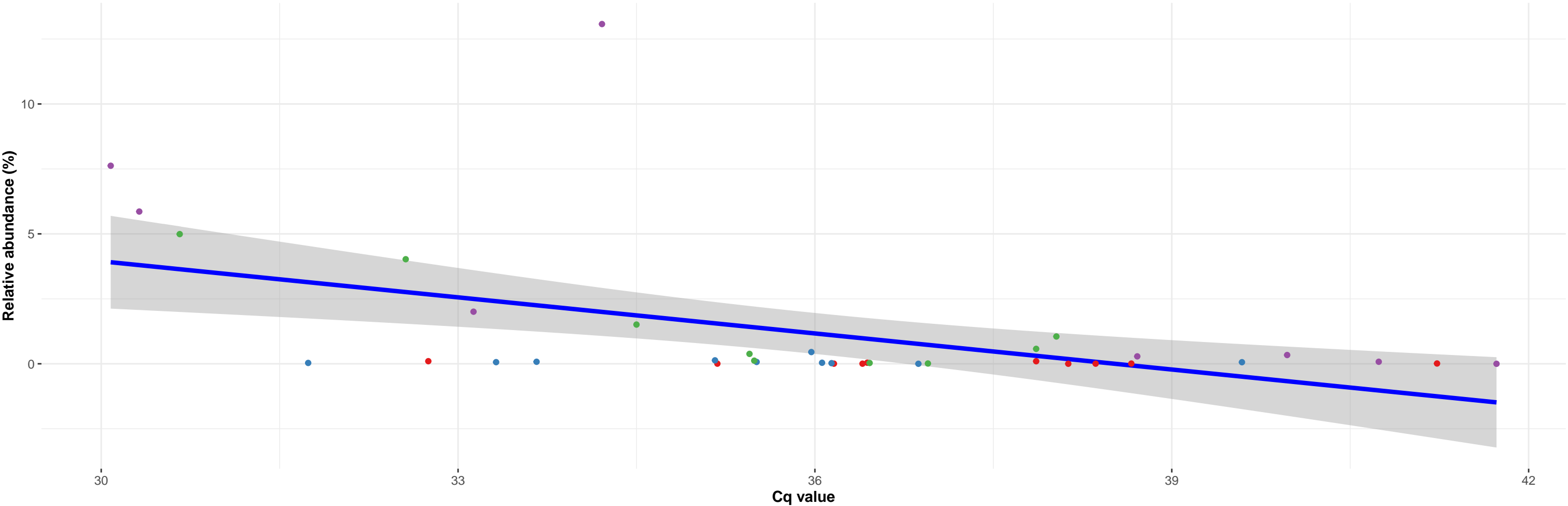


k\_\_Bacteria; p\_\_Proteobacteria; c\_\_Gammaproteobacteria; o\_\_Enterobacteriales; f\_\_Enterobacteriaceae; g\_\_Plesiomonas; NA

featureID: 7438db900c870a0d550a34920b927788

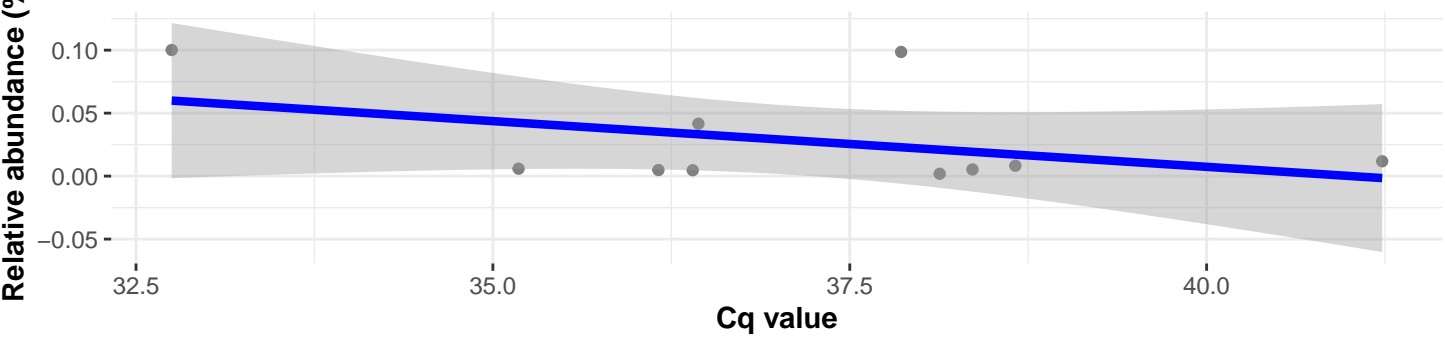
Correlation with all samples

$\log_e(S) = 9.457$ ,  $p = 0.001$ ,  $\hat{\rho}_{\text{Spearman}} = -0.517$ ,  $CI_{95\%} [-0.725, -0.222]$ ,  $n_{\text{pairs}} = 37$



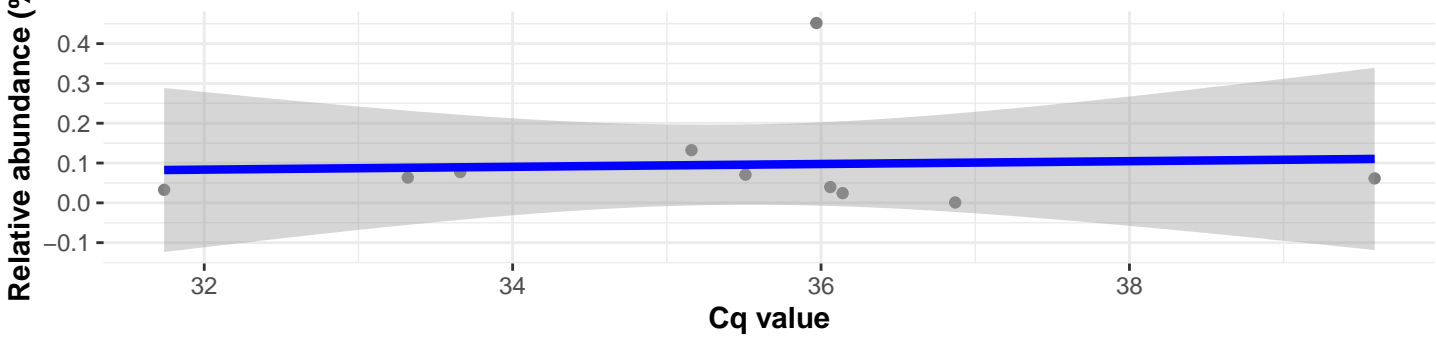
Correlation within: Tilapia\_farmed\_pond

$\log_e(S) = 5.204$ ,  $p = 0.777$ ,  $\hat{\rho}_{\text{Spearman}} = -0.103$ ,  $CI_{95\%} [-0.699, 0.578]$ ,  $n_{\text{pairs}} = 10$



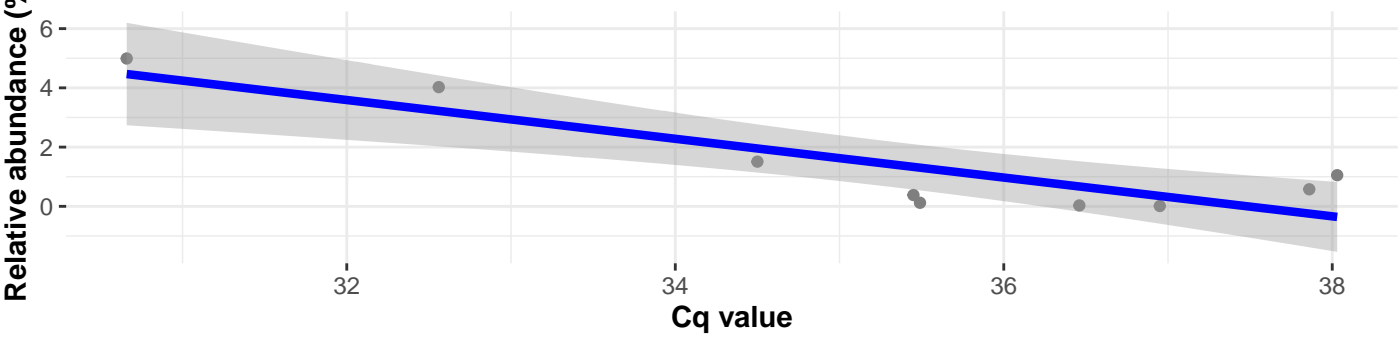
Correlation within: Tilapia\_farmed\_lake

$\log_e(S) = 5.412$ ,  $p = 0.310$ ,  $\hat{\rho}_{\text{Spearman}} = -0.358$ ,  $CI_{95\%} [-0.813, 0.370]$ ,  $n_{\text{pairs}} = 10$



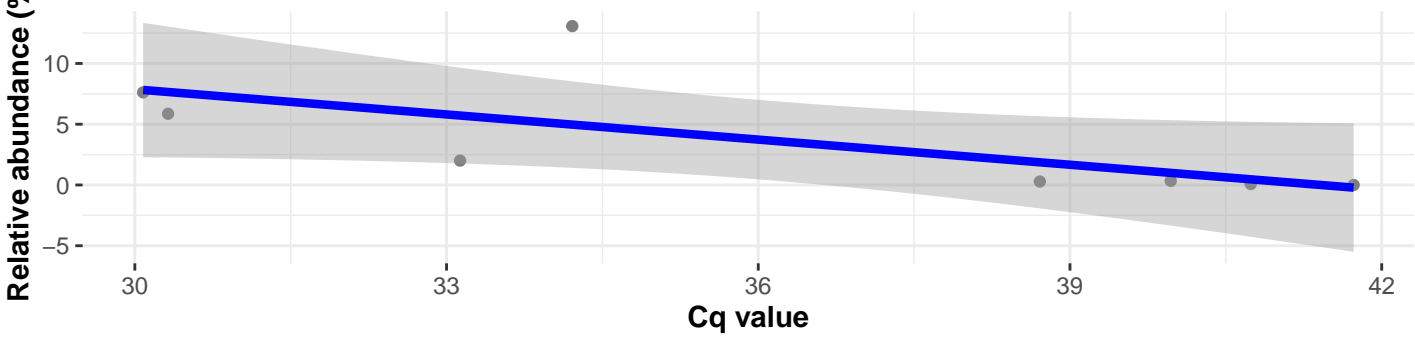
Correlation within: Tilapia\_wild\_lake

$\log_e(S) = 5.247$ ,  $p = 0.099$ ,  $\hat{\rho}_{\text{Spearman}} = -0.583$ ,  $CI_{95\%} [-0.904, 0.155]$ ,  $n_{\text{pairs}} = 9$



Correlation within: Perch\_wild\_lake

$\log_e(S) = 5.037$ ,  $p = 0.010$ ,  $\hat{\rho}_{\text{Spearman}} = -0.833$ ,  $CI_{95\%} [-0.971, -0.288]$ ,  $n_{\text{pairs}} = 8$

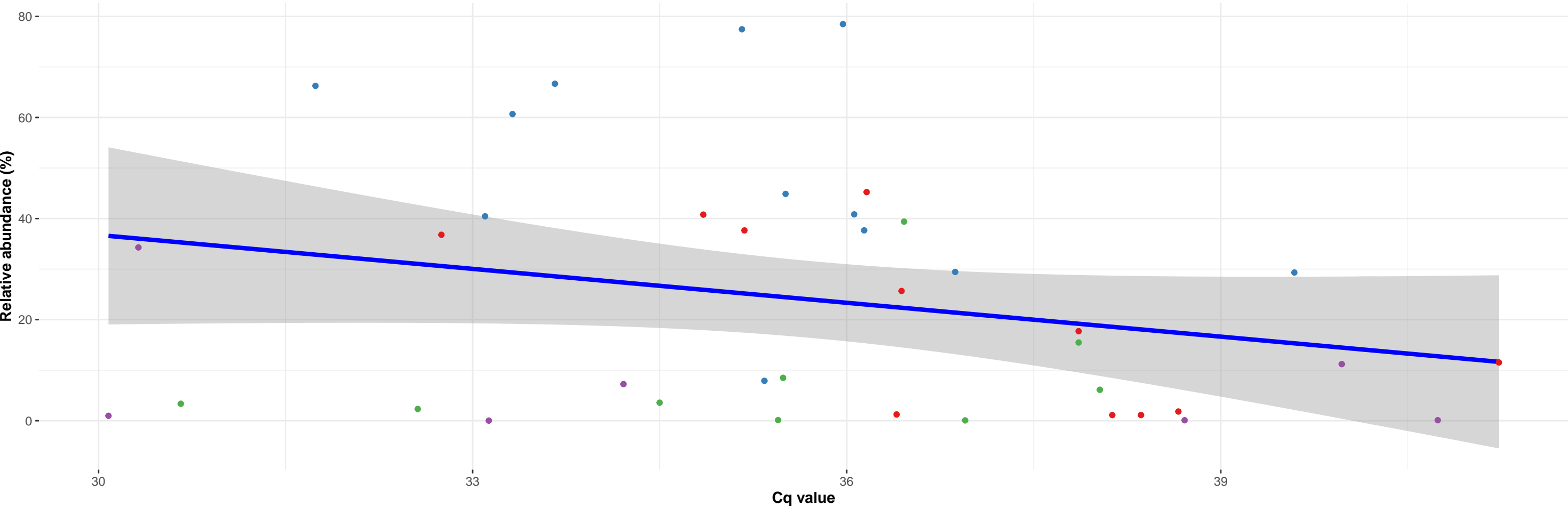


k\_\_Bacteria; p\_\_Fusobacteria; c\_\_Fusobacteriia; o\_\_Fusobacteriales; f\_\_Fusobacteriaceae; g\_\_Cetobacterium; NA

featureID: 03f0f9af305de66090e757aaa19b09fd

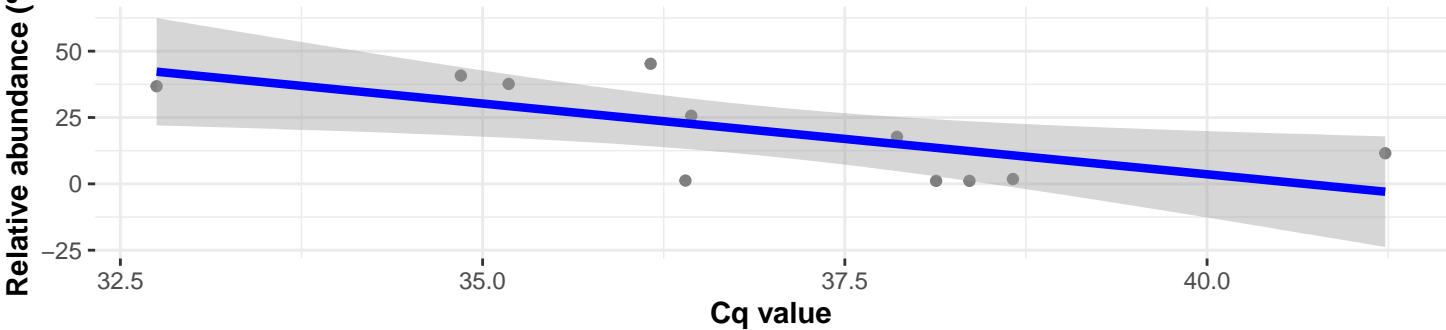
Correlation with all samples

$\log_e(S) = 9.428$ ,  $p = 0.112$ ,  $\hat{\rho}_{\text{Spearman}} = -0.259$ ,  $\text{CI}_{95\%} [-0.538, 0.072]$ ,  $n_{\text{pairs}} = 39$



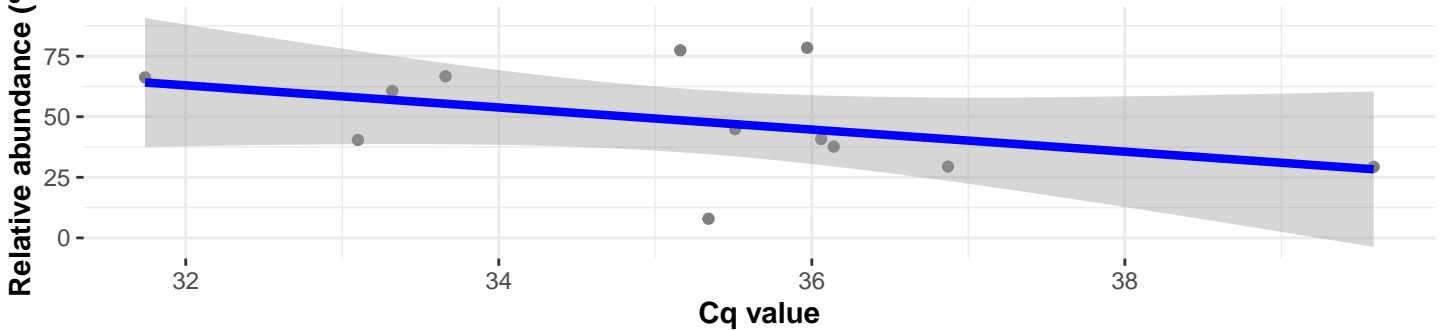
Correlation within: Tilapia\_farmed\_pond

$\log_e(S) = 5.924$ ,  $p = 0.016$ ,  $\hat{\rho}_{\text{Spearman}} = -0.700$ ,  $\text{CI}_{95\%} [-0.919, -0.153]$ ,  $n_{\text{pairs}} = 11$



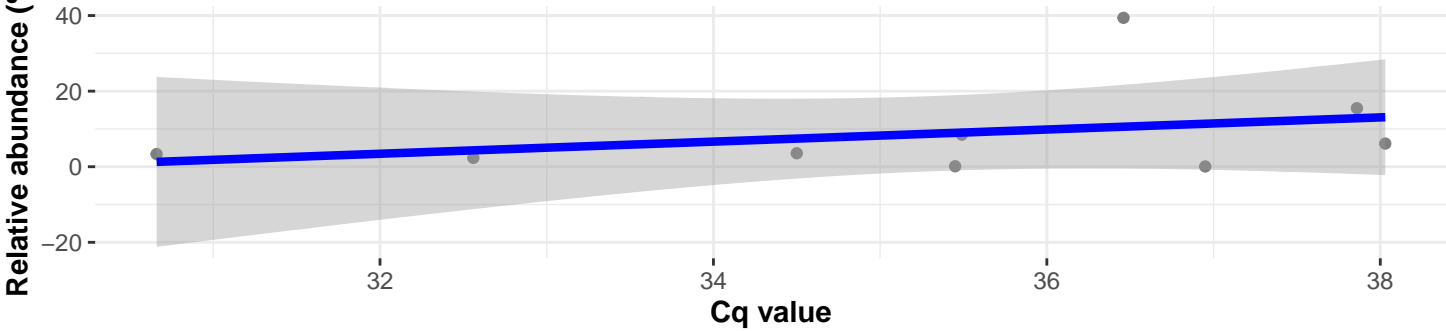
Correlation within: Tilapia\_farmed\_lake

$\log_e(S) = 6.040$ ,  $p = 0.124$ ,  $\hat{\rho}_{\text{Spearman}} = -0.469$ ,  $\text{CI}_{95\%} [-0.828, 0.163]$ ,  $n_{\text{pairs}} = 12$



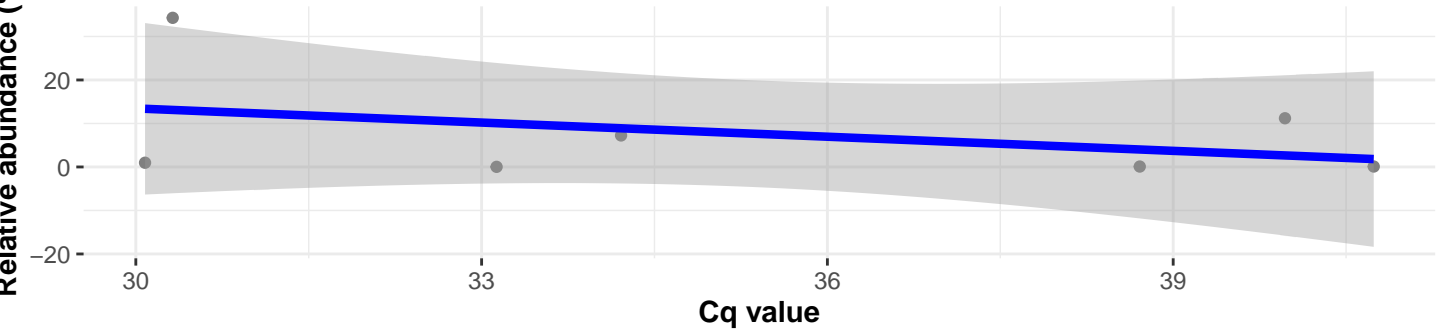
Correlation within: Tilapia\_wild\_lake

$\log_e(S) = 4.331$ ,  $p = 0.332$ ,  $\hat{\rho}_{\text{Spearman}} = 0.367$ ,  $\text{CI}_{95\%} [-0.413, 0.836]$ ,  $n_{\text{pairs}} = 9$



Correlation within: Perch\_wild\_lake

$\log_e(S) = 4.159$ ,  $p = 0.760$ ,  $\hat{\rho}_{\text{Spearman}} = -0.143$ ,  $\text{CI}_{95\%} [-0.819, 0.699]$ ,  $n_{\text{pairs}} = 7$

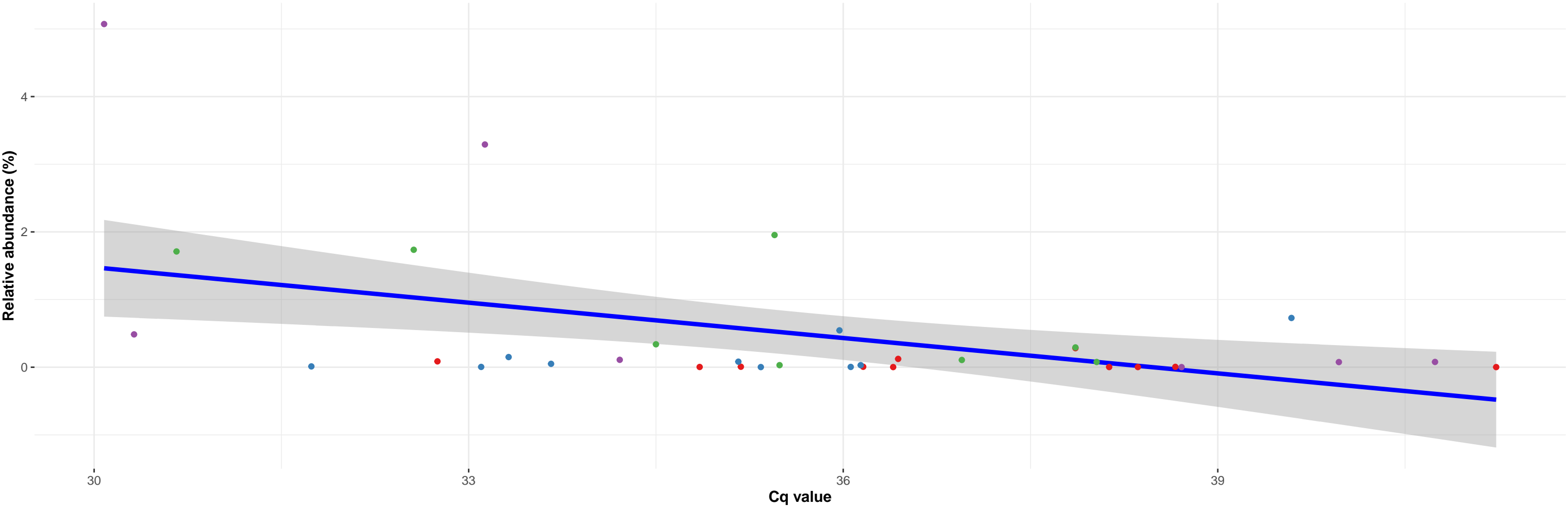


k\_\_Bacteria; p\_\_Firmicutes; c\_\_Clostridia; o\_\_Clostridiales; f\_\_Peptostreptococcaceae; g\_\_Paraclostridium; NA

featureID: f4b4dbd070c3296a6040e51b1e2aacfa

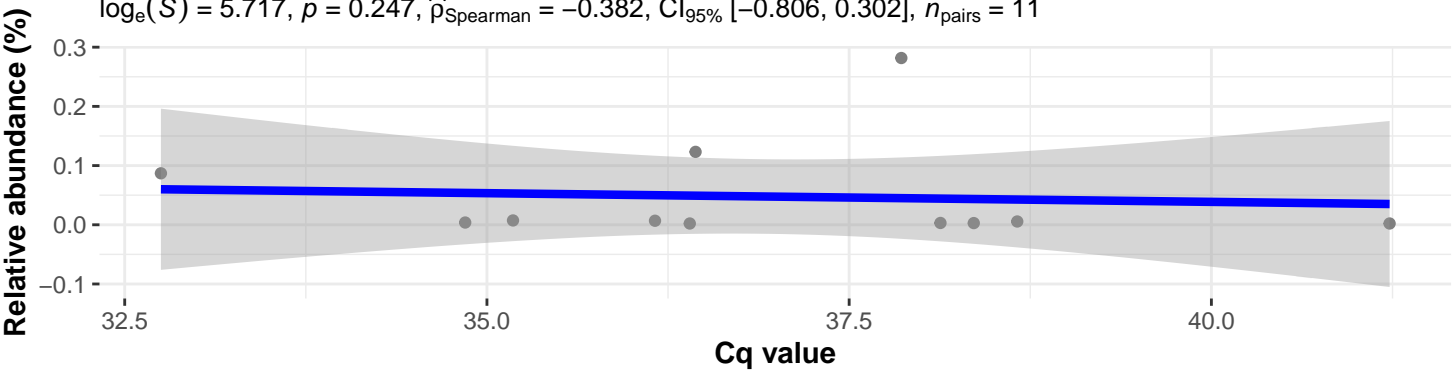
Correlation with all samples

$\log_e(S) = 9.307$ ,  $p = 0.011$ ,  $\hat{\rho}_{\text{Spearman}} = -0.417$ ,  $\text{CI}_{95\%} [-0.662, -0.093]$ ,  $n_{\text{pairs}} = 36$



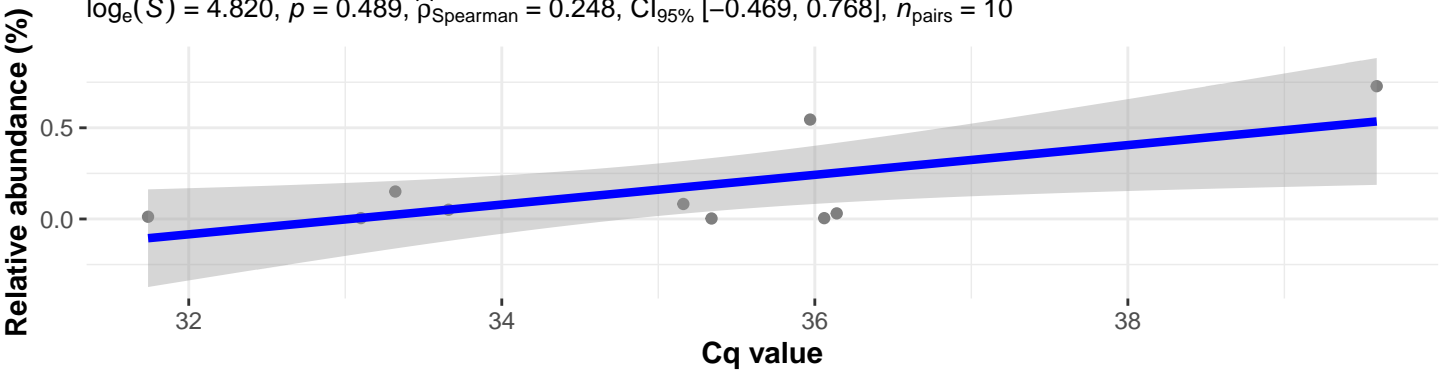
Correlation within: Tilapia\_farmed\_pond

$\log_e(S) = 5.717$ ,  $p = 0.247$ ,  $\hat{\rho}_{\text{Spearman}} = -0.382$ ,  $\text{CI}_{95\%} [-0.806, 0.302]$ ,  $n_{\text{pairs}} = 11$



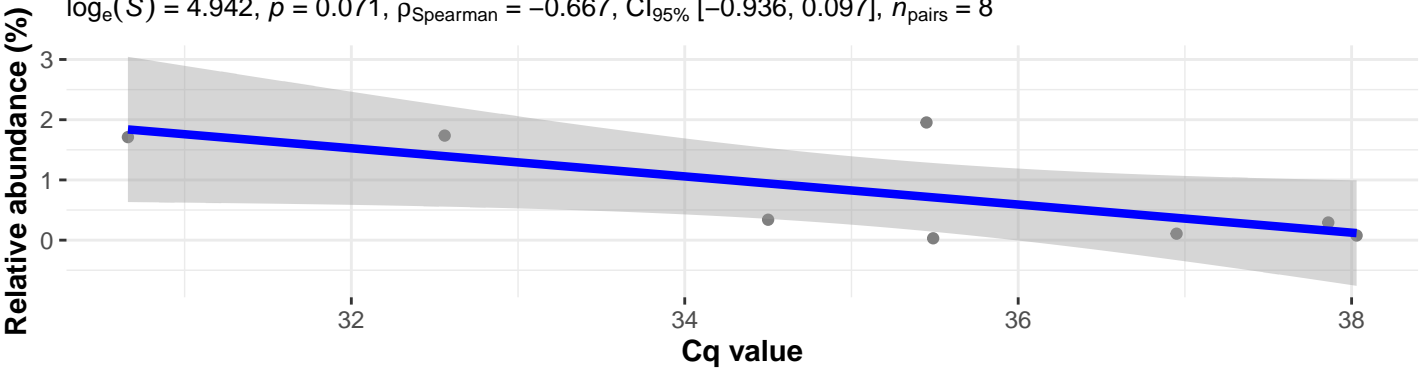
Correlation within: Tilapia\_farmed\_lake

$\log_e(S) = 4.820$ ,  $p = 0.489$ ,  $\hat{\rho}_{\text{Spearman}} = 0.248$ ,  $\text{CI}_{95\%} [-0.469, 0.768]$ ,  $n_{\text{pairs}} = 10$



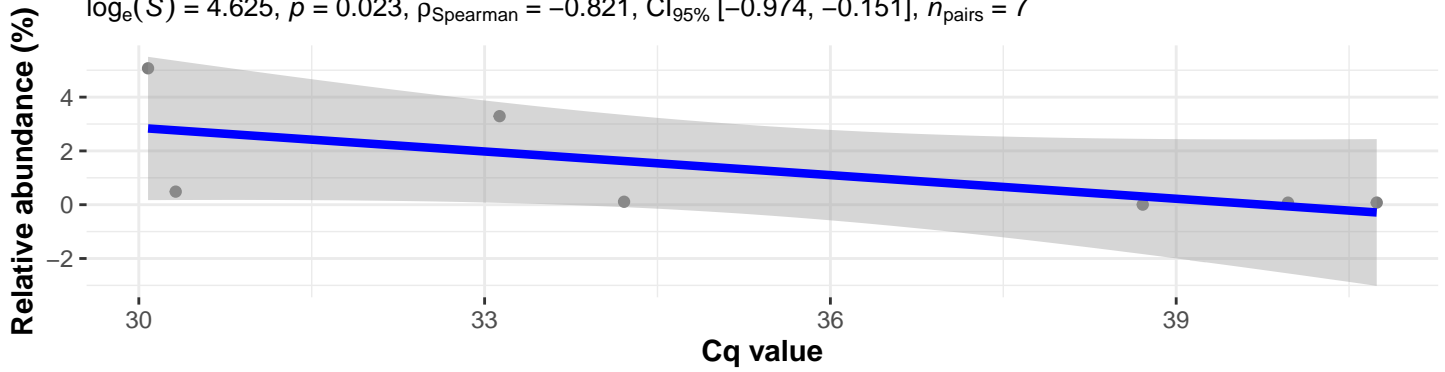
Correlation within: Tilapia\_wild\_lake

$\log_e(S) = 4.942$ ,  $p = 0.071$ ,  $\hat{\rho}_{\text{Spearman}} = -0.667$ ,  $\text{CI}_{95\%} [-0.936, 0.097]$ ,  $n_{\text{pairs}} = 8$



Correlation within: Perch\_wild\_lake

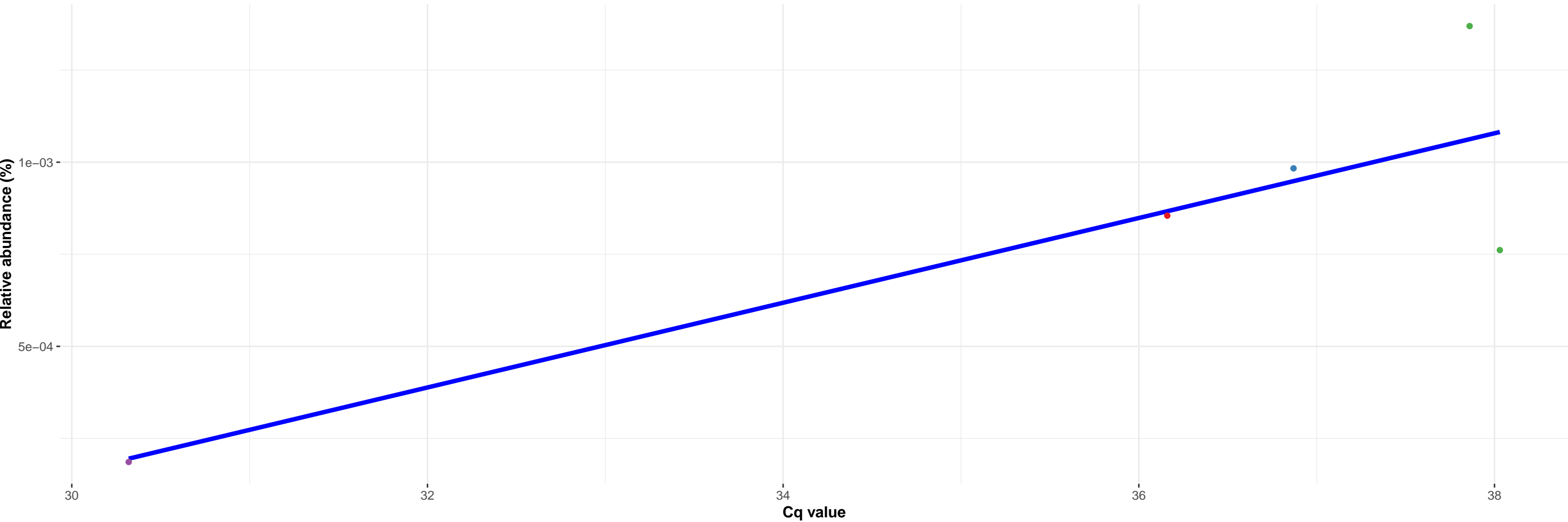
$\log_e(S) = 4.625$ ,  $p = 0.023$ ,  $\hat{\rho}_{\text{Spearman}} = -0.821$ ,  $\text{CI}_{95\%} [-0.974, -0.151]$ ,  $n_{\text{pairs}} = 7$



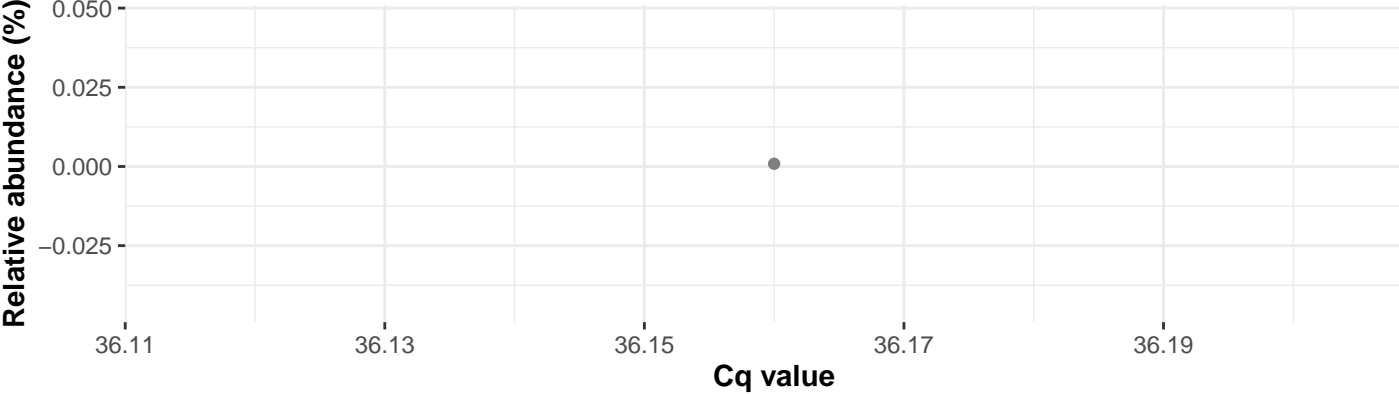
k\_\_Bacteria; p\_\_Proteobacteria; c\_\_Gammaproteobacteria; o\_\_Alteromonadales; f\_\_Shewanellaceae; g\_\_Shewanella; s\_\_Shewanella algae

featureID: fadf78bc47e055f59328c8f565155ea5

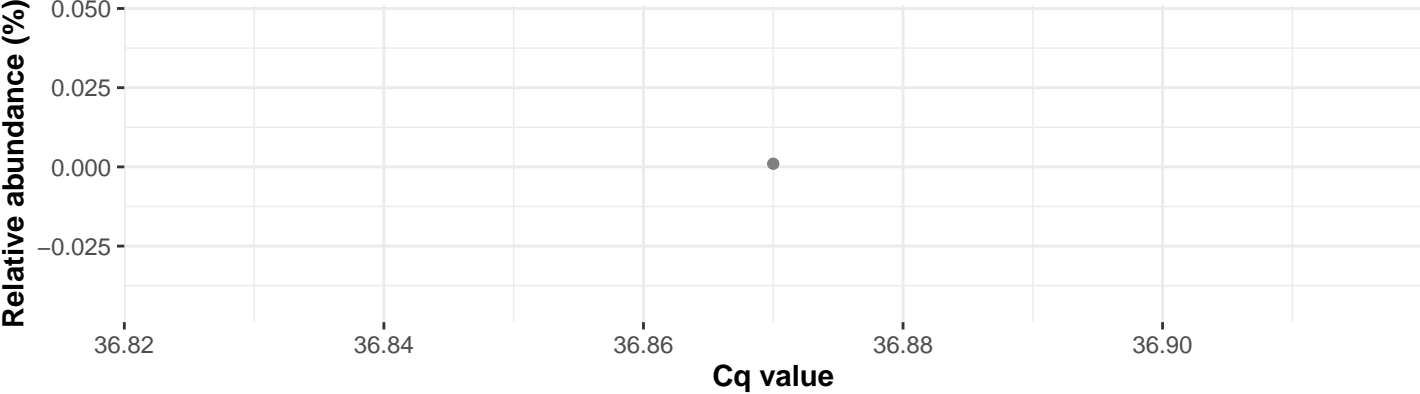
Correlation with all samples



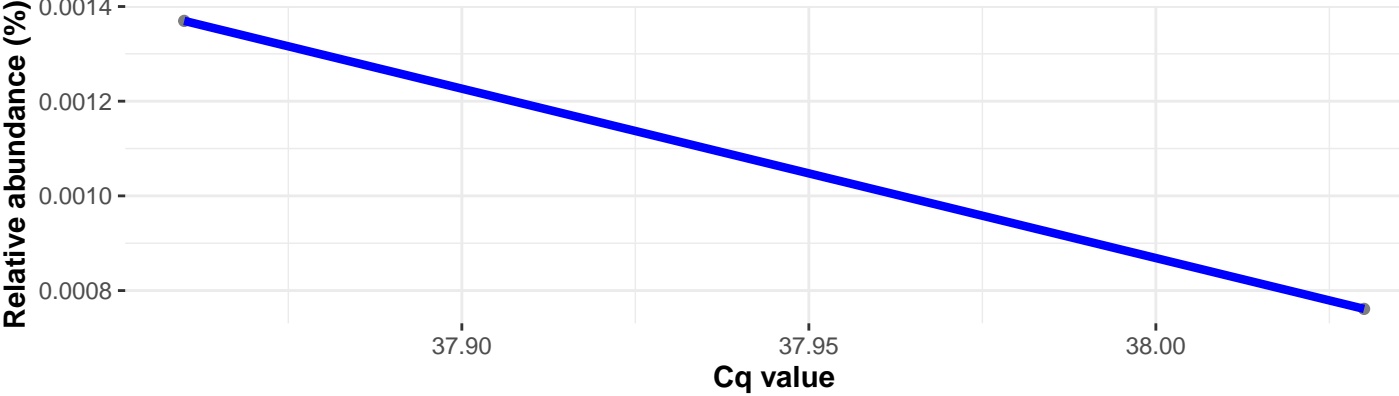
Correlation within: Tilapia\_farmed\_pond



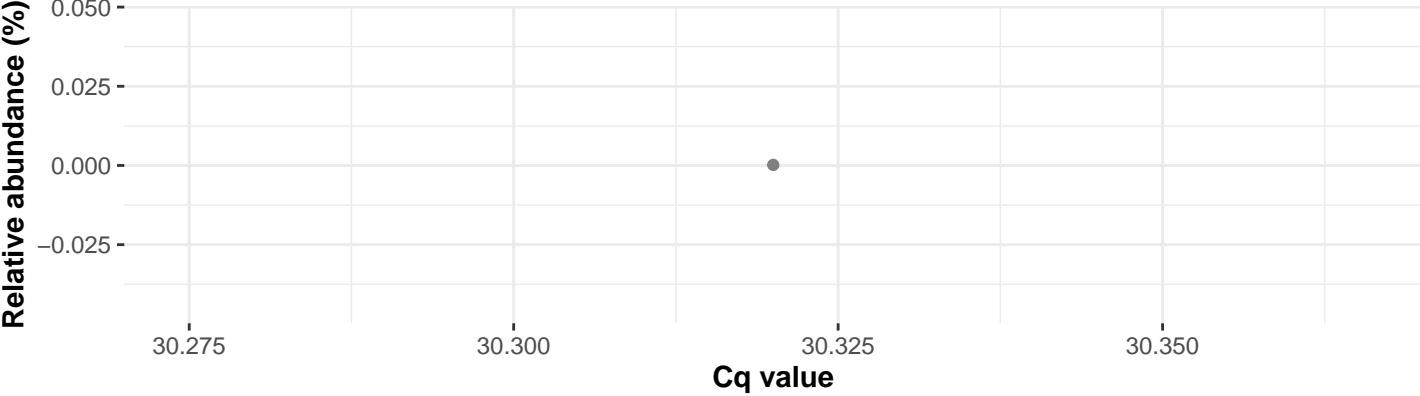
Correlation within: Tilapia\_farmed\_lake



Correlation within: Tilapia\_wild\_lake



Correlation within: Perch\_wild\_lake

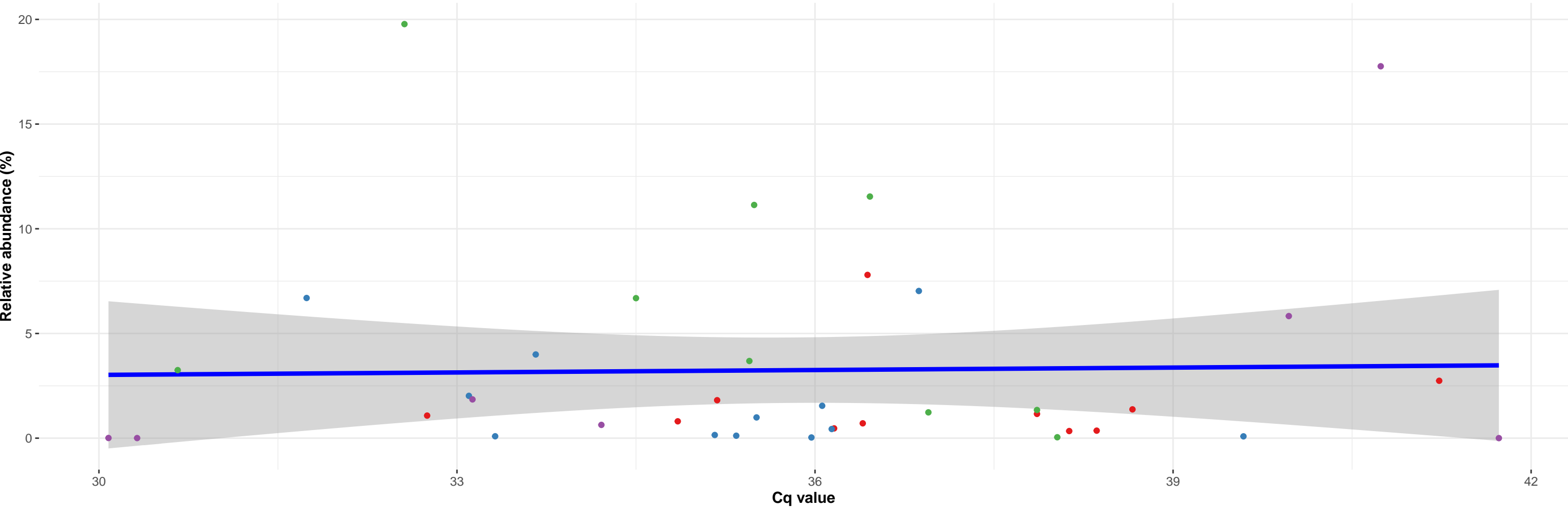


k\_\_Bacteria; p\_\_Firmicutes; c\_\_Clostridia; o\_\_Clostridiales; f\_\_Peptostreptococcaceae; g\_\_Romboutsia; NA

featureID: efa98c673cef7e11e51b27d01167c2af

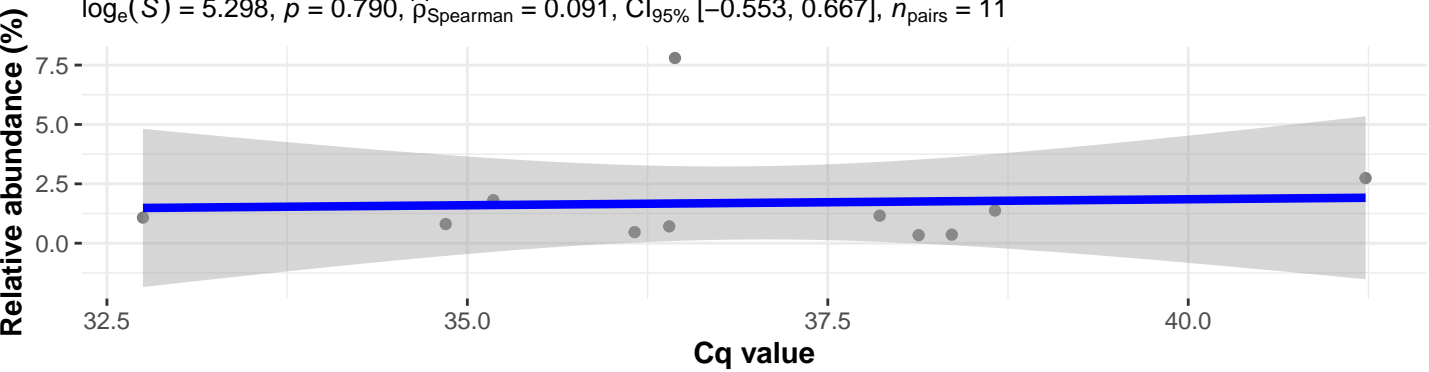
Correlation with all samples

$\log_e(S) = 9.226$ ,  $p = 0.863$ ,  $\hat{\rho}_{\text{Spearman}} = -0.029$ ,  $CI_{95\%} [-0.349, 0.298]$ ,  $n_{\text{pairs}} = 39$



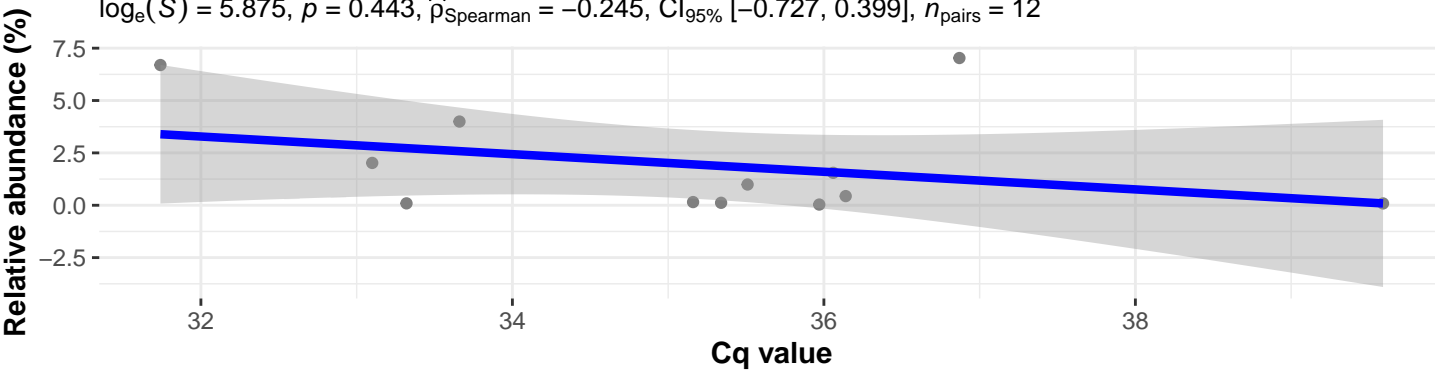
Correlation within: Tilapia\_farmed\_pond

$\log_e(S) = 5.298$ ,  $p = 0.790$ ,  $\hat{\rho}_{\text{Spearman}} = 0.091$ ,  $CI_{95\%} [-0.553, 0.667]$ ,  $n_{\text{pairs}} = 11$



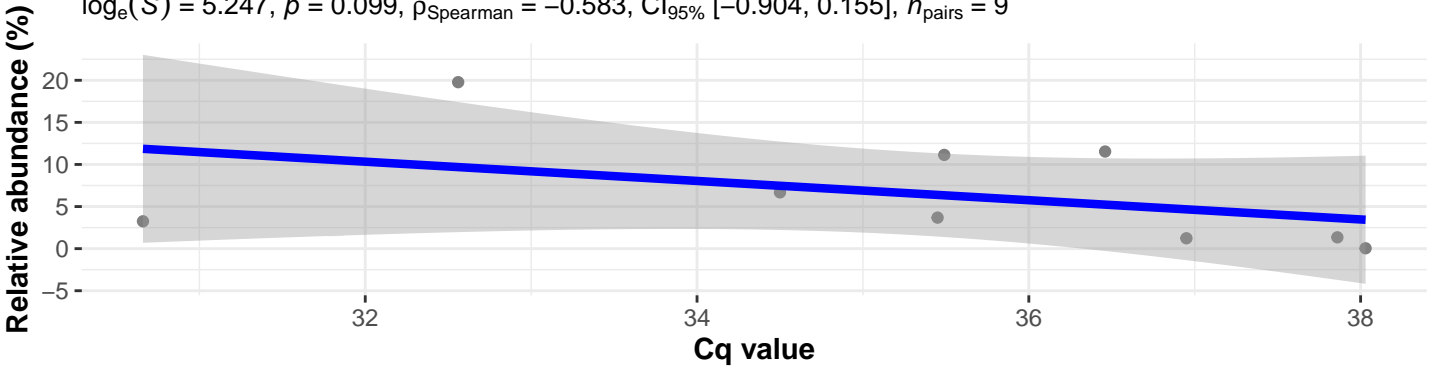
Correlation within: Tilapia\_farmed\_lake

$\log_e(S) = 5.875$ ,  $p = 0.443$ ,  $\hat{\rho}_{\text{Spearman}} = -0.245$ ,  $CI_{95\%} [-0.727, 0.399]$ ,  $n_{\text{pairs}} = 12$



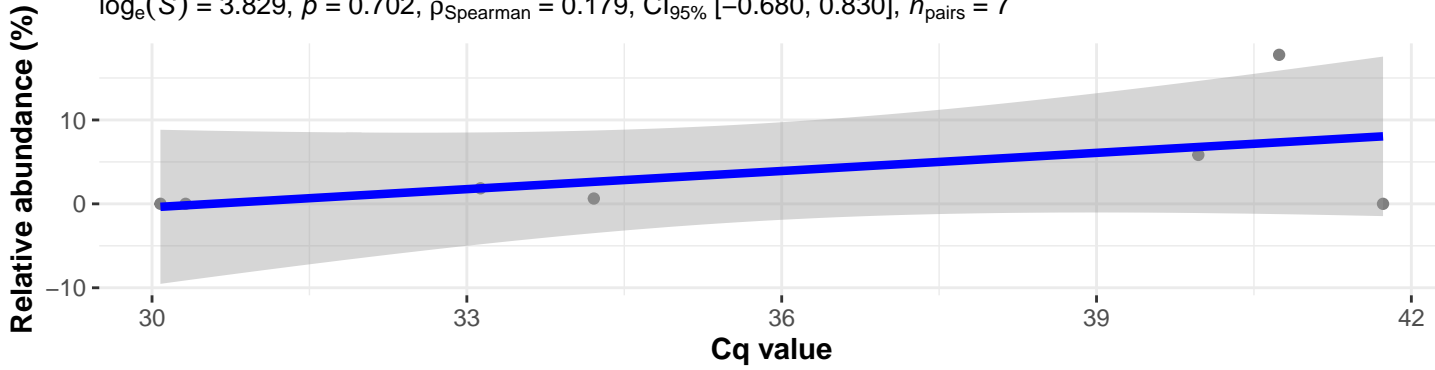
Correlation within: Tilapia\_wild\_lake

$\log_e(S) = 5.247$ ,  $p = 0.099$ ,  $\hat{\rho}_{\text{Spearman}} = -0.583$ ,  $CI_{95\%} [-0.904, 0.155]$ ,  $n_{\text{pairs}} = 9$



Correlation within: Perch\_wild\_lake

$\log_e(S) = 3.829$ ,  $p = 0.702$ ,  $\hat{\rho}_{\text{Spearman}} = 0.179$ ,  $CI_{95\%} [-0.680, 0.830]$ ,  $n_{\text{pairs}} = 7$

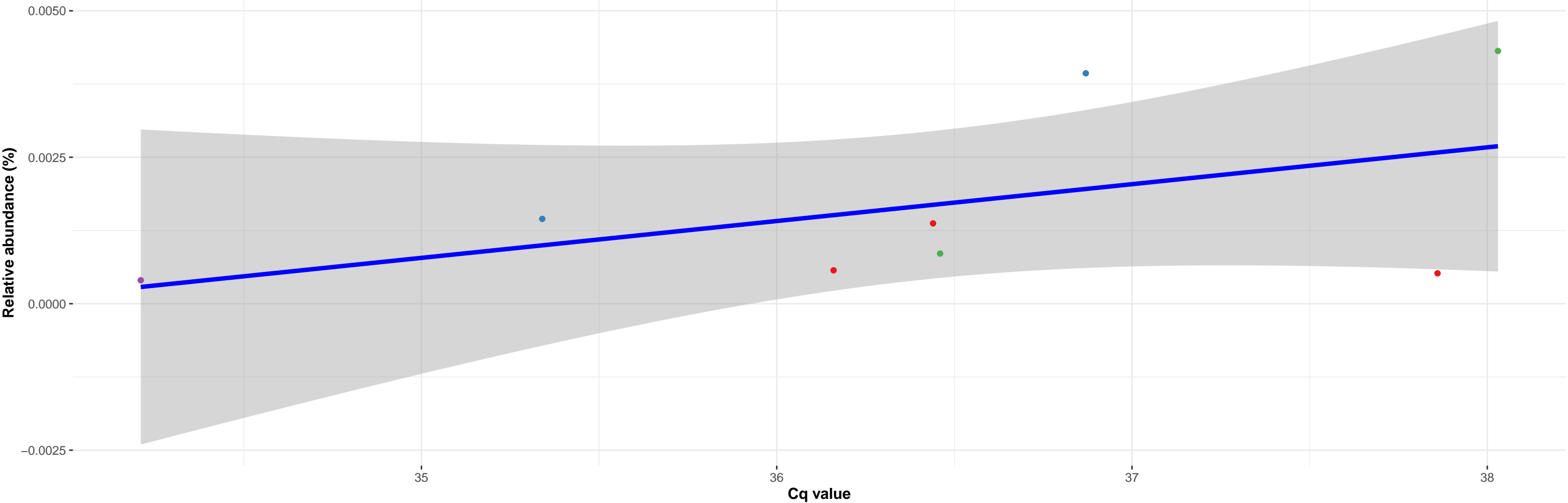


k\_\_Bacteria; p\_\_Proteobacteria; c\_\_Gammaproteobacteria; o\_\_Oceanospirillales; f\_\_Halomonadaceae; g\_\_Halomonas; NA

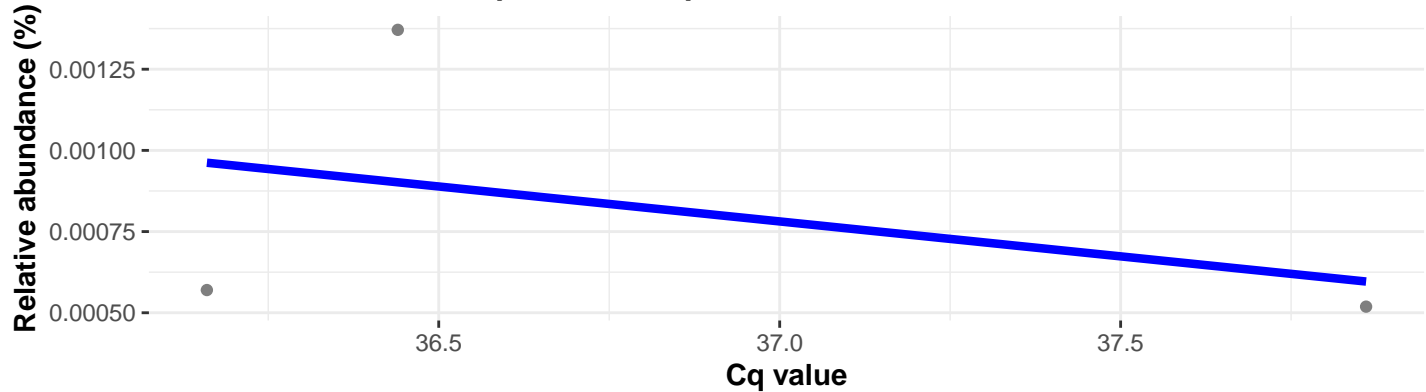
featureID: 7f46b7ea18aa6ed4244429796401c660

Correlation with all samples

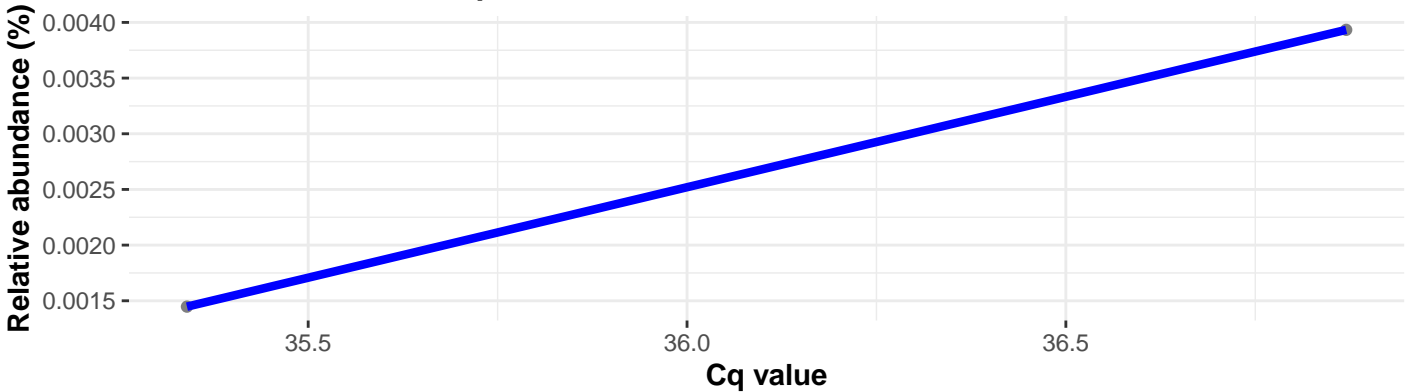
$\log_e(S) = 3.784$ ,  $p = 0.233$ ,  $\hat{\rho}_{\text{Spearman}} = 0.476$ ,  $CI_{95\%} [-0.367, 0.890]$ ,  $n_{\text{pairs}} = 8$



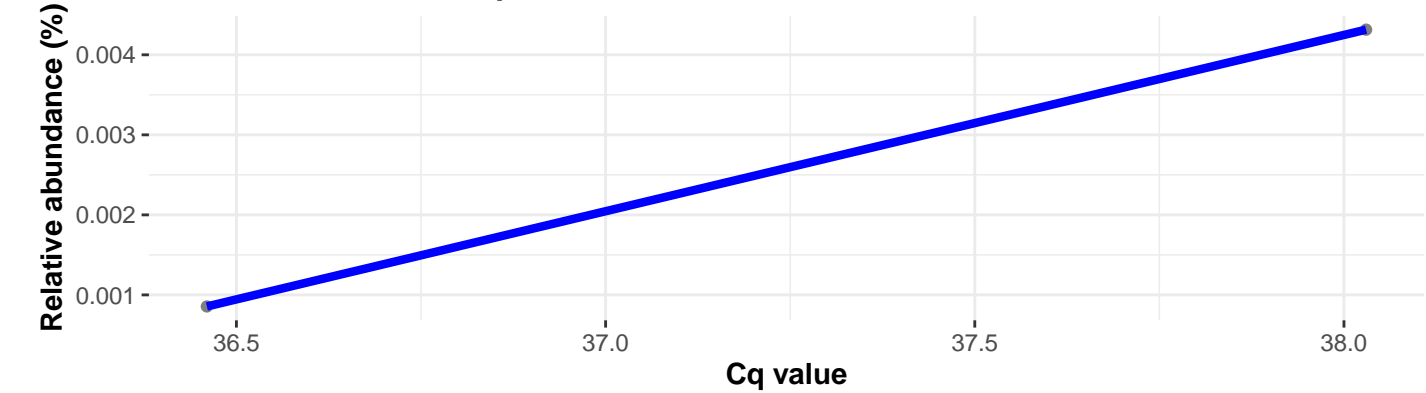
Correlation within: Tilapia\_farmed\_pond



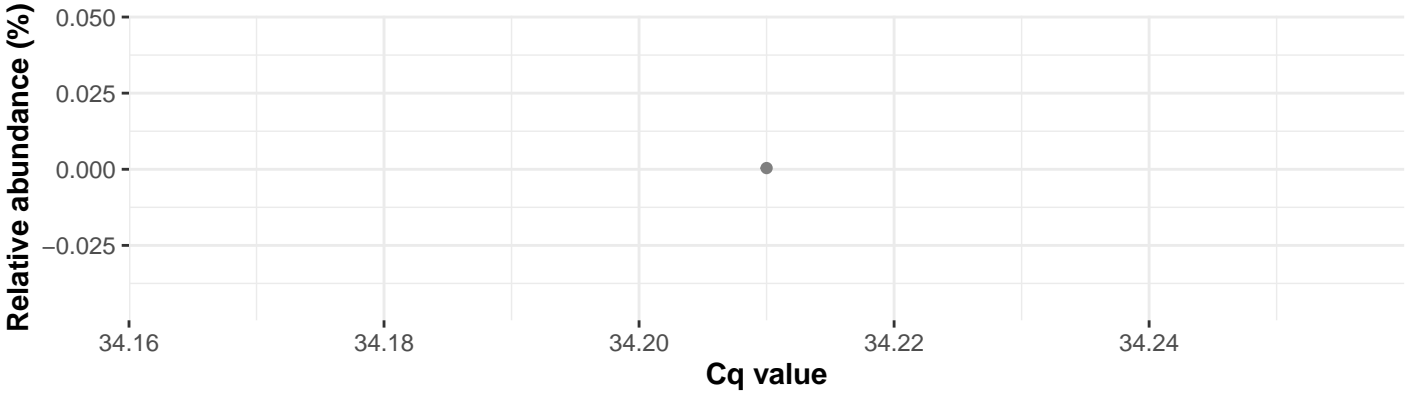
Correlation within: Tilapia\_farmed\_lake



Correlation within: Tilapia\_wild\_lake

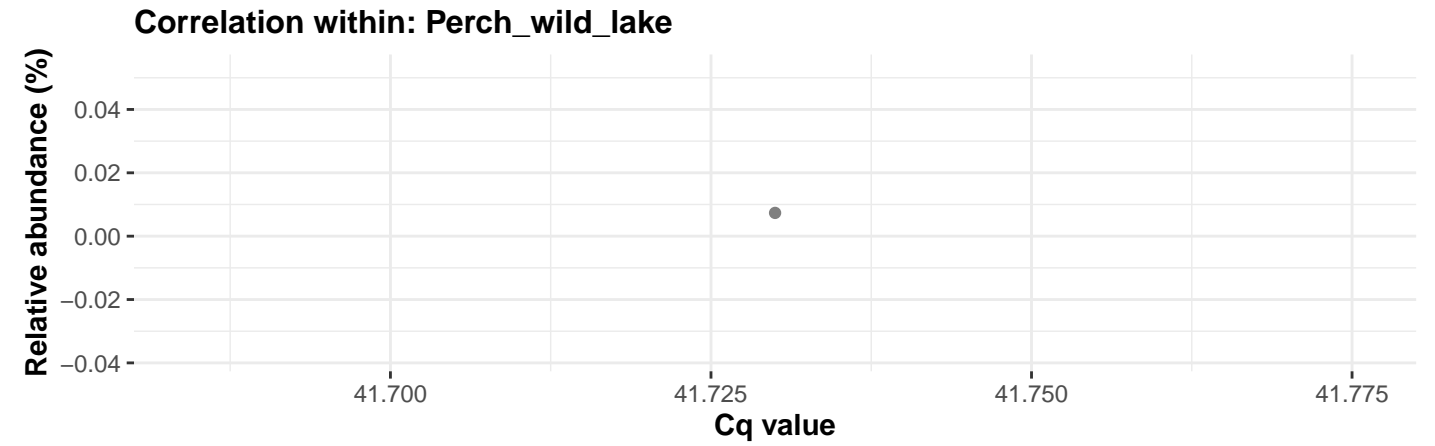
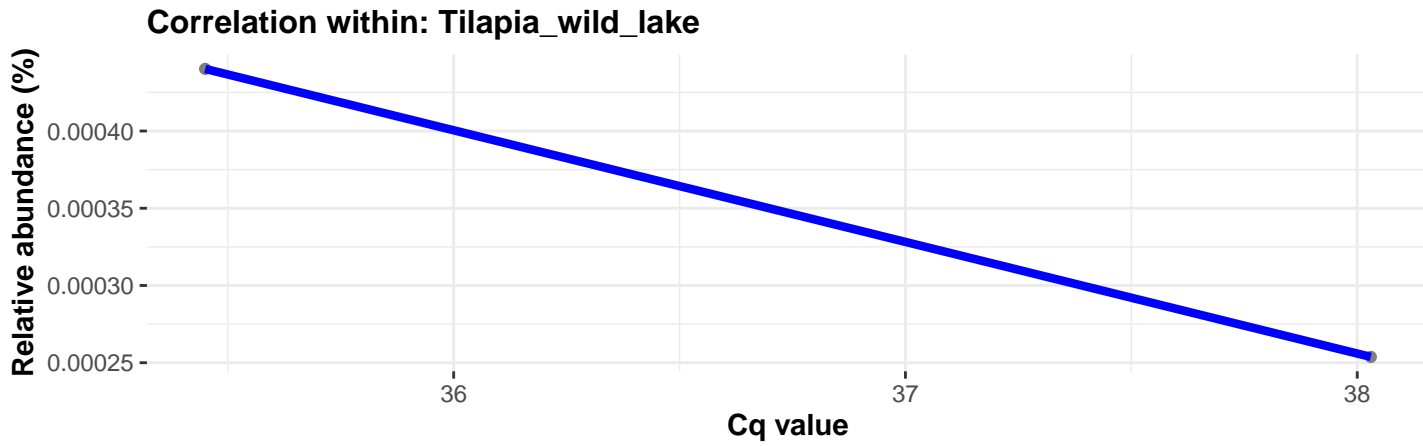
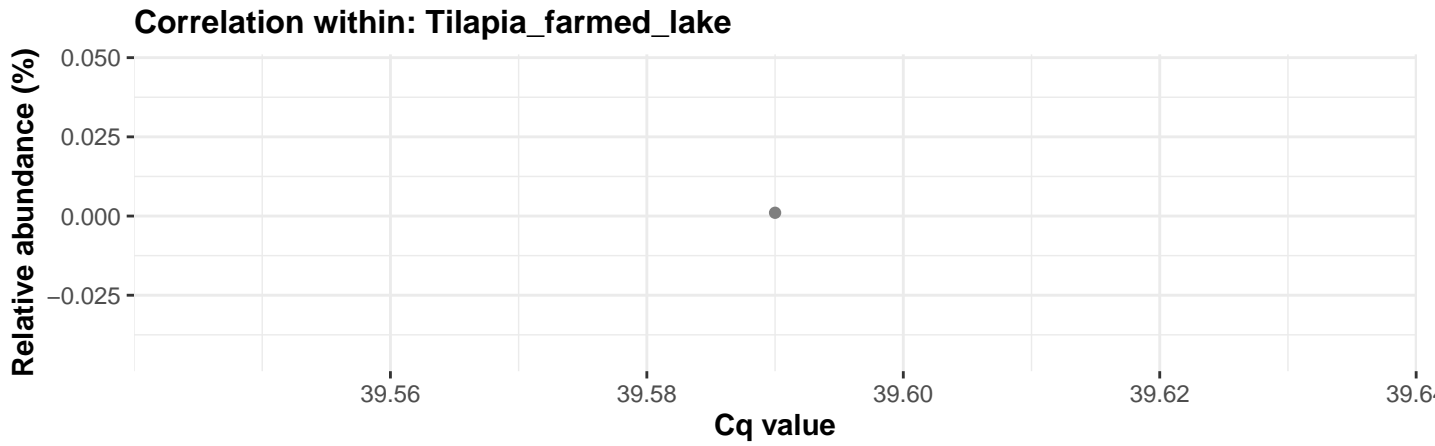
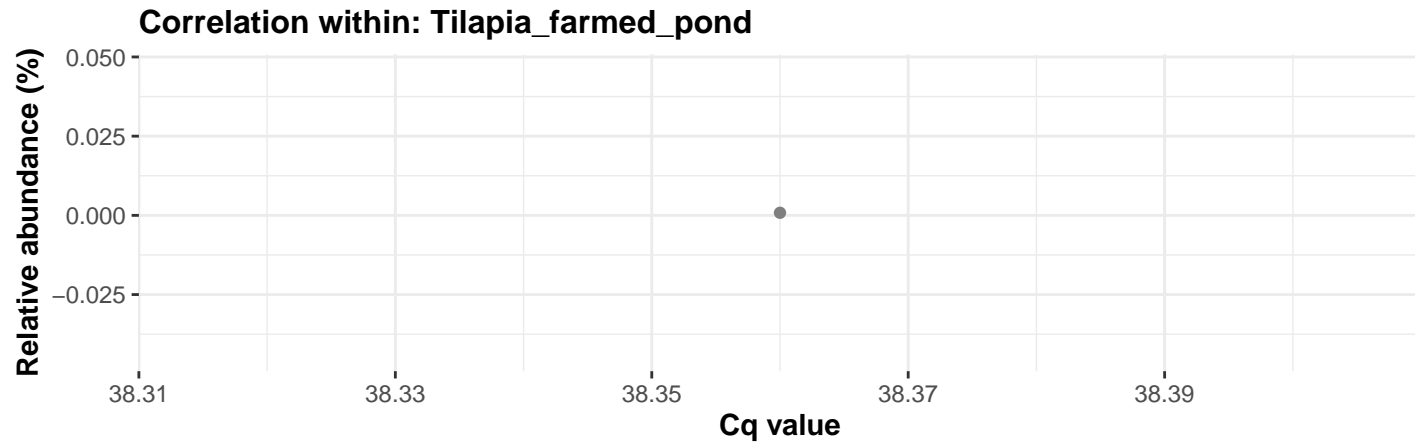
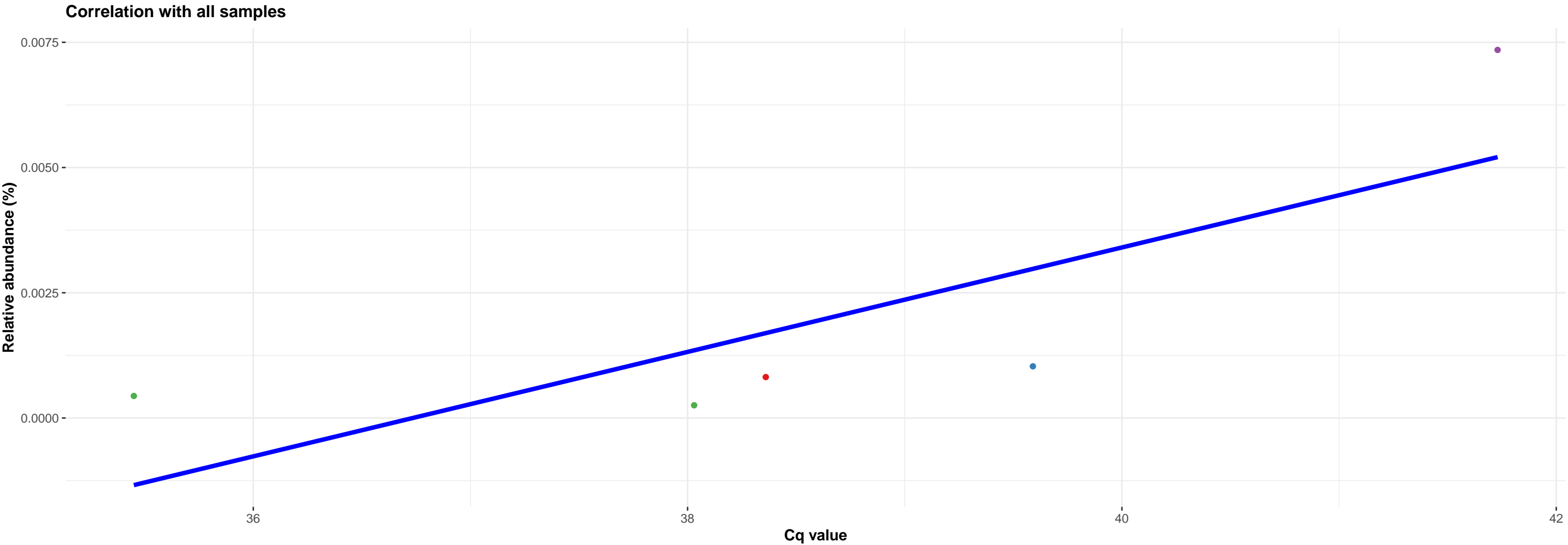


Correlation within: Perch\_wild\_lake



k\_\_Bacteria; p\_\_Patescibacteria; c\_\_Gracilibacteria; Ambiguous\_taxa; Ambiguous\_taxa; Ambiguous\_taxa; Ambiguous\_taxa

featureID: 6bd3f3df4073826645c0bfe560765004



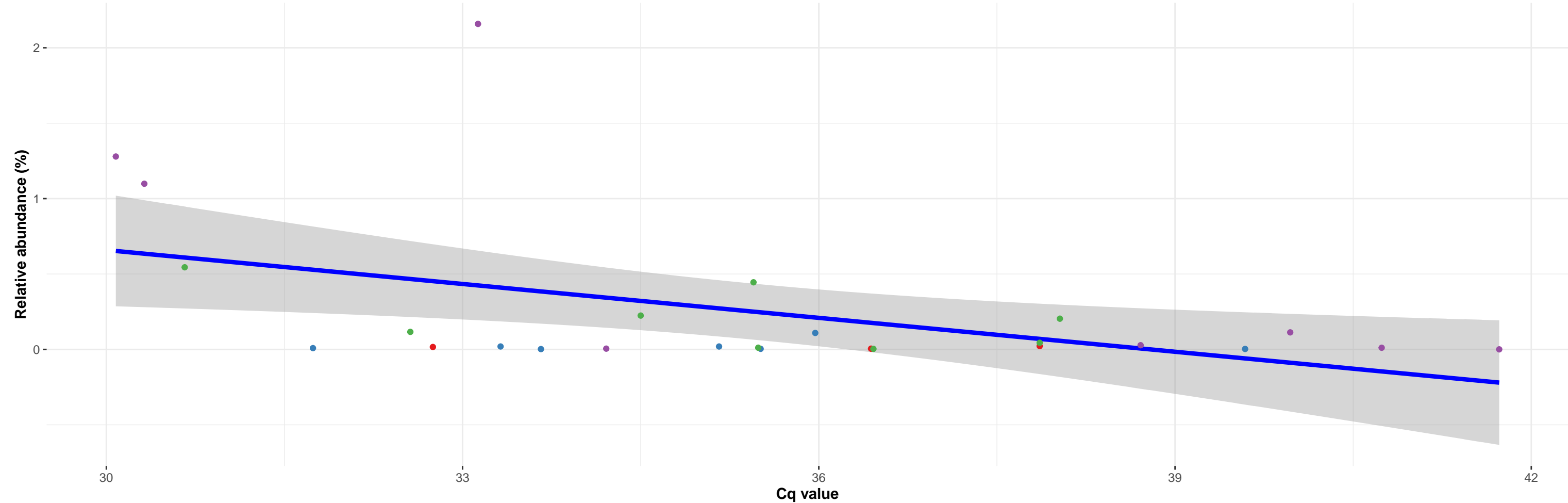


k\_\_Bacteria; p\_\_Proteobacteria; c\_\_Gammaproteobacteria; o\_\_Enterobacteriales; f\_\_Enterobacteriaceae; g\_\_Plesiomonas; Ambiguous\_taxa

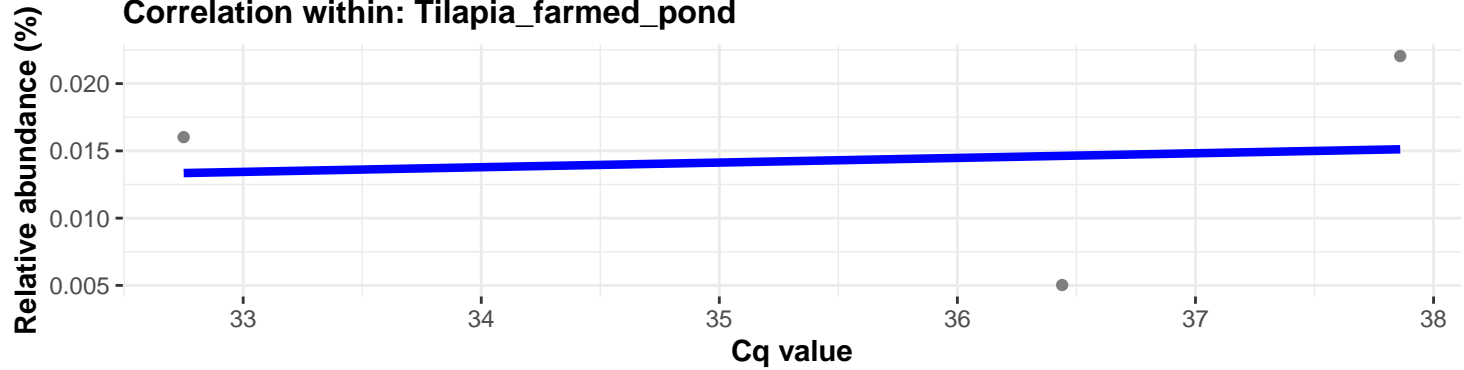
featureID: 4d951a112c225bc3bdfd2d0cfec2b2d3

Correlation with all samples

$\log_e(S) = 8.335$ ,  $p = 0.031$ ,  $\hat{\rho}_{\text{Spearman}} = -0.424$ ,  $\text{CI}_{95\%} [-0.703, -0.032]$ ,  $n_{\text{pairs}} = 26$

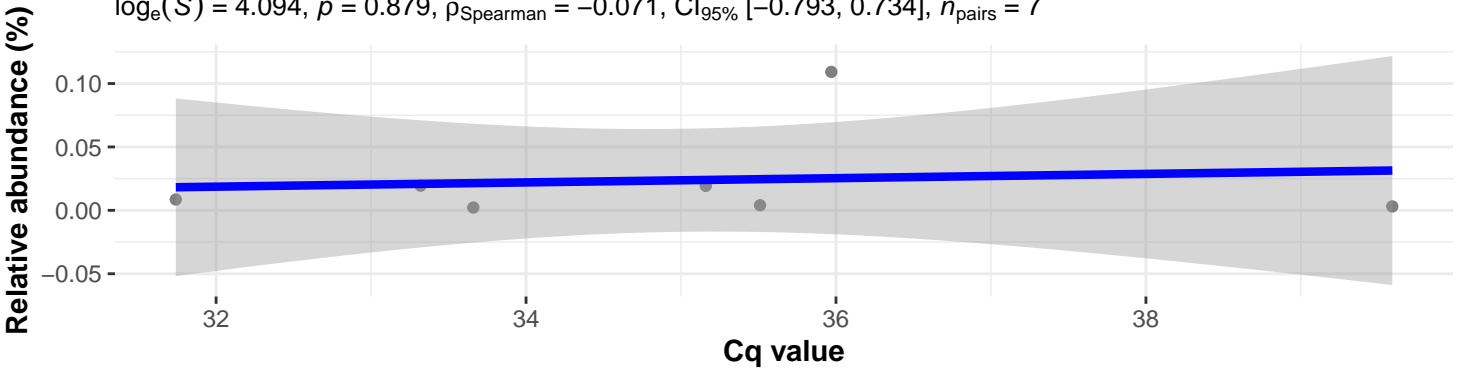


Correlation within: Tilapia\_farmed\_pond



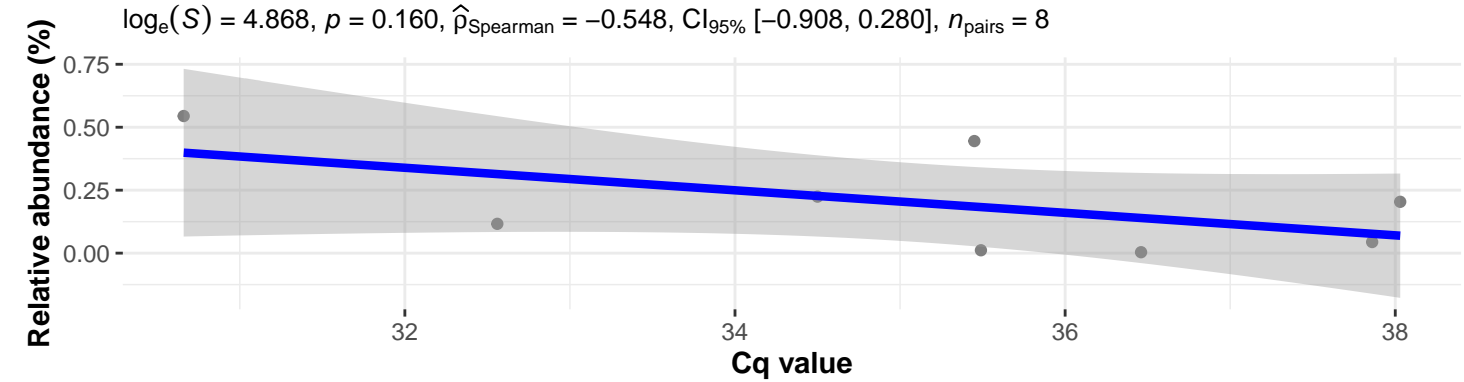
Correlation within: Tilapia\_farmed\_lake

$\log_e(S) = 4.094$ ,  $p = 0.879$ ,  $\hat{\rho}_{\text{Spearman}} = -0.071$ ,  $\text{CI}_{95\%} [-0.793, 0.734]$ ,  $n_{\text{pairs}} = 7$



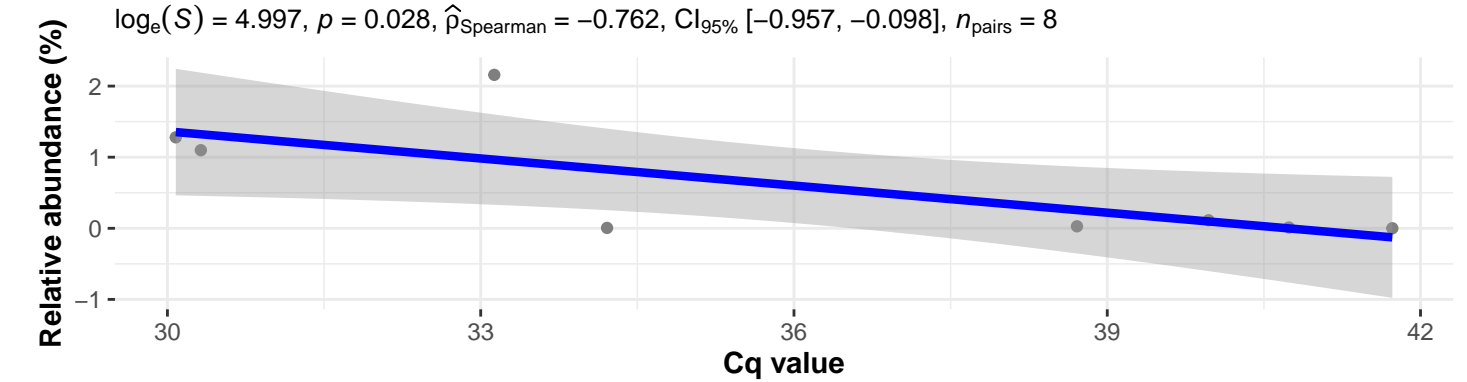
Correlation within: Tilapia\_wild\_lake

$\log_e(S) = 4.868$ ,  $p = 0.160$ ,  $\hat{\rho}_{\text{Spearman}} = -0.548$ ,  $\text{CI}_{95\%} [-0.908, 0.280]$ ,  $n_{\text{pairs}} = 8$



Correlation within: Perch\_wild\_lake

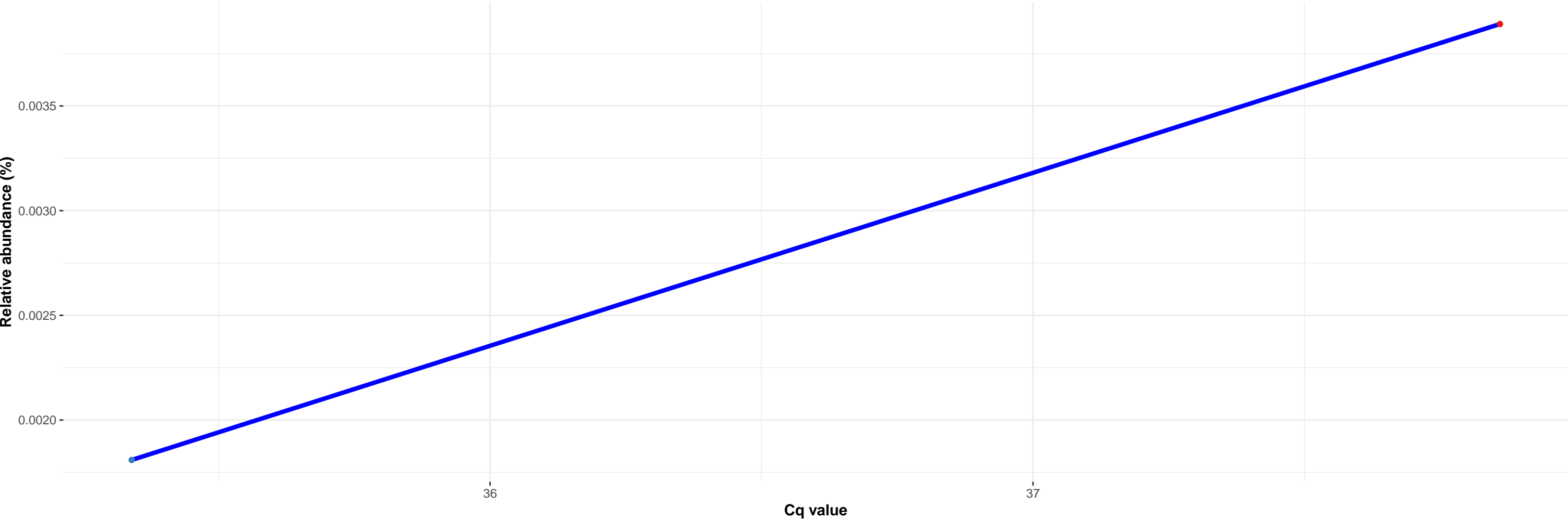
$\log_e(S) = 4.997$ ,  $p = 0.028$ ,  $\hat{\rho}_{\text{Spearman}} = -0.762$ ,  $\text{CI}_{95\%} [-0.957, -0.098]$ ,  $n_{\text{pairs}} = 8$



k\_\_Bacteria; p\_\_Acidobacteria; c\_\_Acidobacteriia; o\_\_Acidobacteriales; f\_\_Acidobacteriaceae (Subgroup 1); g\_\_Bryocella; s\_\_uncultured bacterium

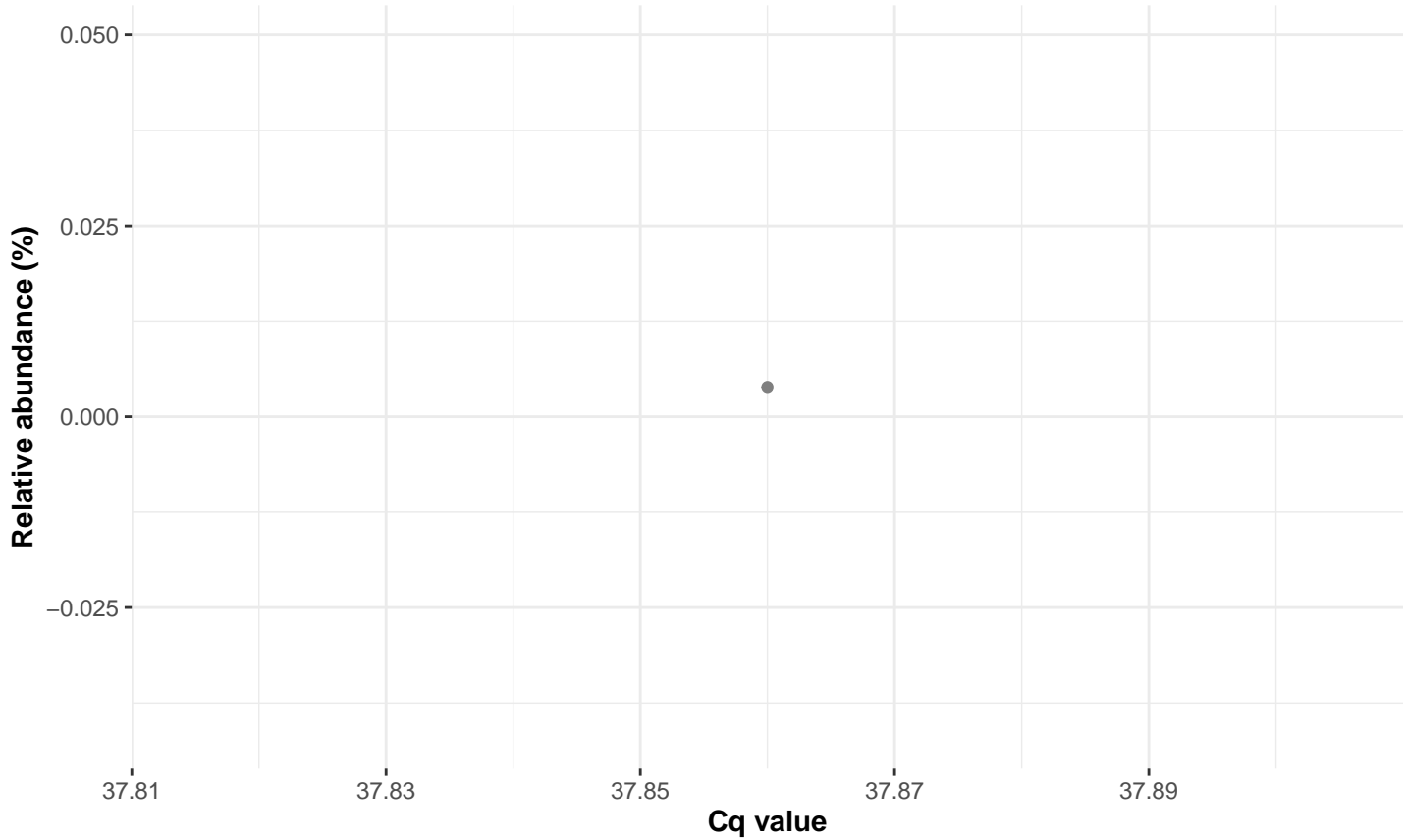
featureID: 92eda480cf7a77d3e7b6890877207fe6

Correlation with all samples

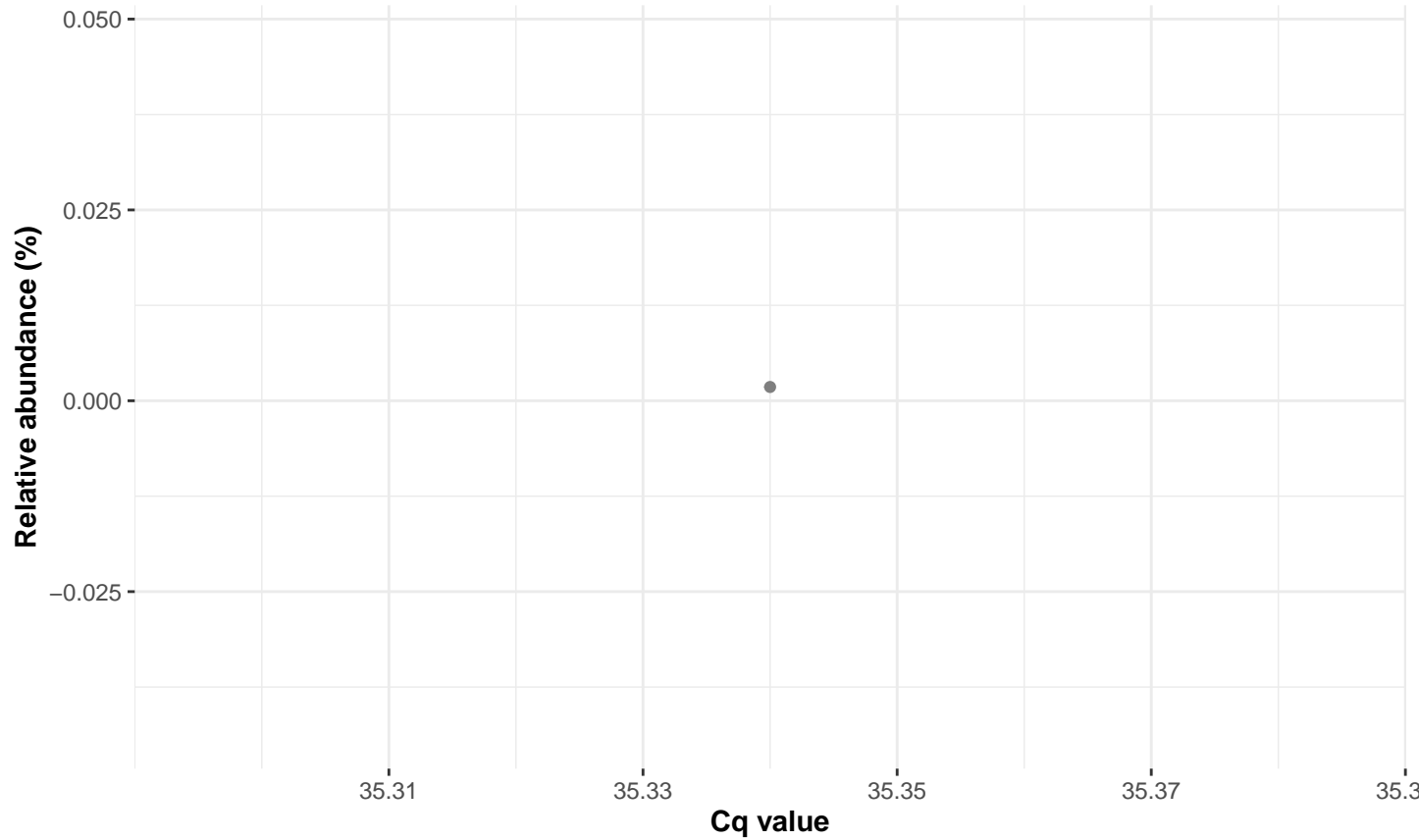


Sample\_type • Tilapia\_farmed\_pond • Tilapia\_farmed\_lake

Correlation within: Tilapia\_farmed\_pond



Correlation within: Tilapia\_farmed\_lake

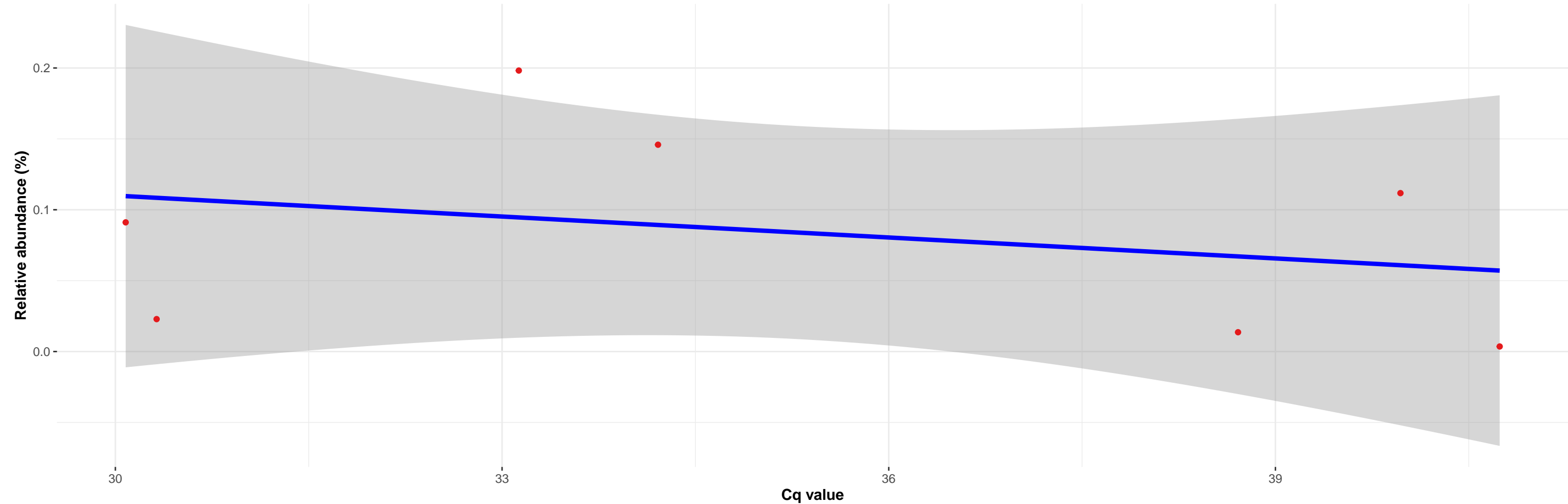


k\_\_Bacteria; p\_\_Firmicutes; c\_\_Clostridia; o\_\_Clostridiales; f\_\_Clostridiaceae 1; g\_\_Clostridium sensu stricto 1; NA

featureID: 98368b3901045189f93ca86afab6cc2b

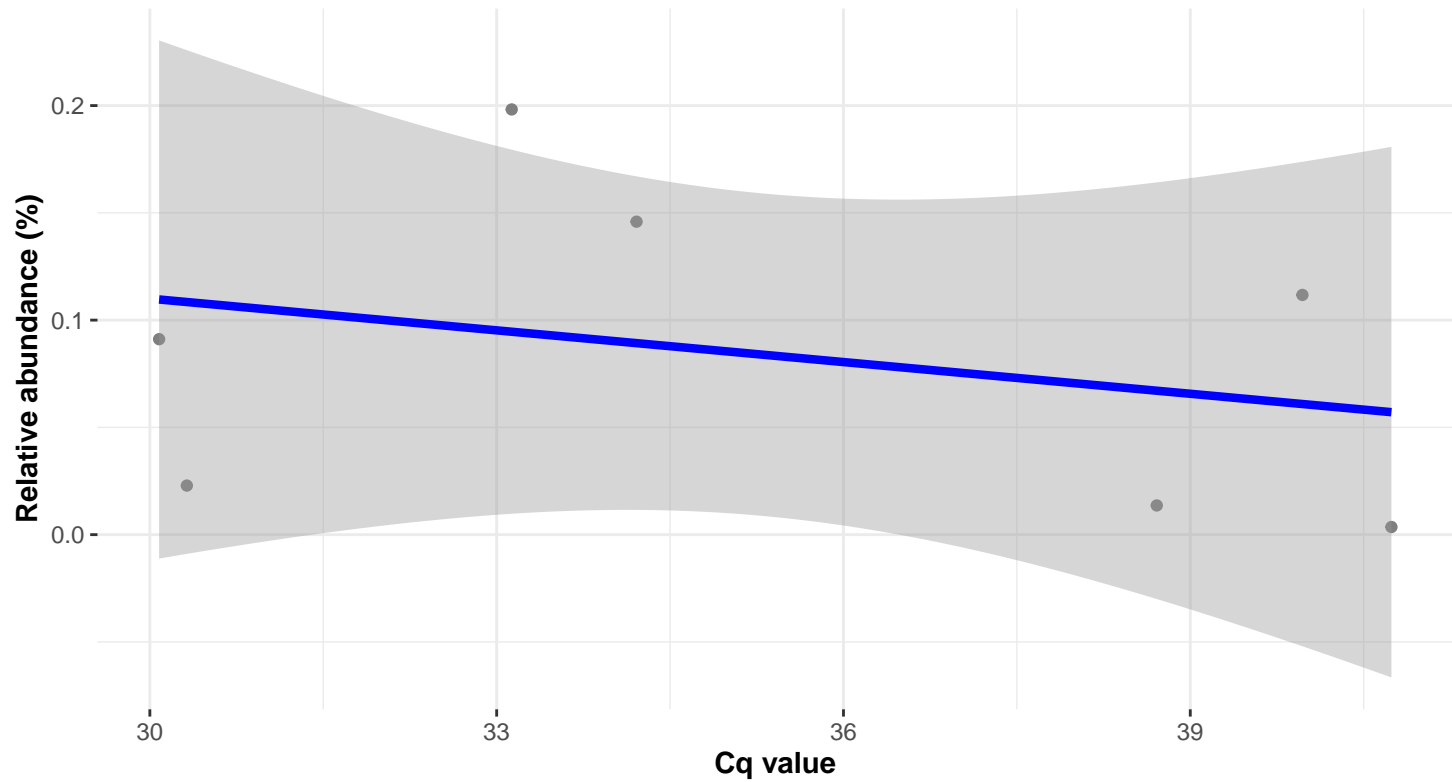
Correlation with all samples

$\log_e(S) = 4.331$ ,  $p = 0.432$ ,  $\hat{\rho}_{\text{Spearman}} = -0.357$ ,  $CI_{95\%} [-0.882, 0.562]$ ,  $n_{\text{pairs}} = 7$



Correlation within: Perch\_wild\_lake

$\log_e(S) = 4.331$ ,  $p = 0.432$ ,  $\hat{\rho}_{\text{Spearman}} = -0.357$ ,  $CI_{95\%} [-0.882, 0.562]$ ,  $n_{\text{pairs}} = 7$

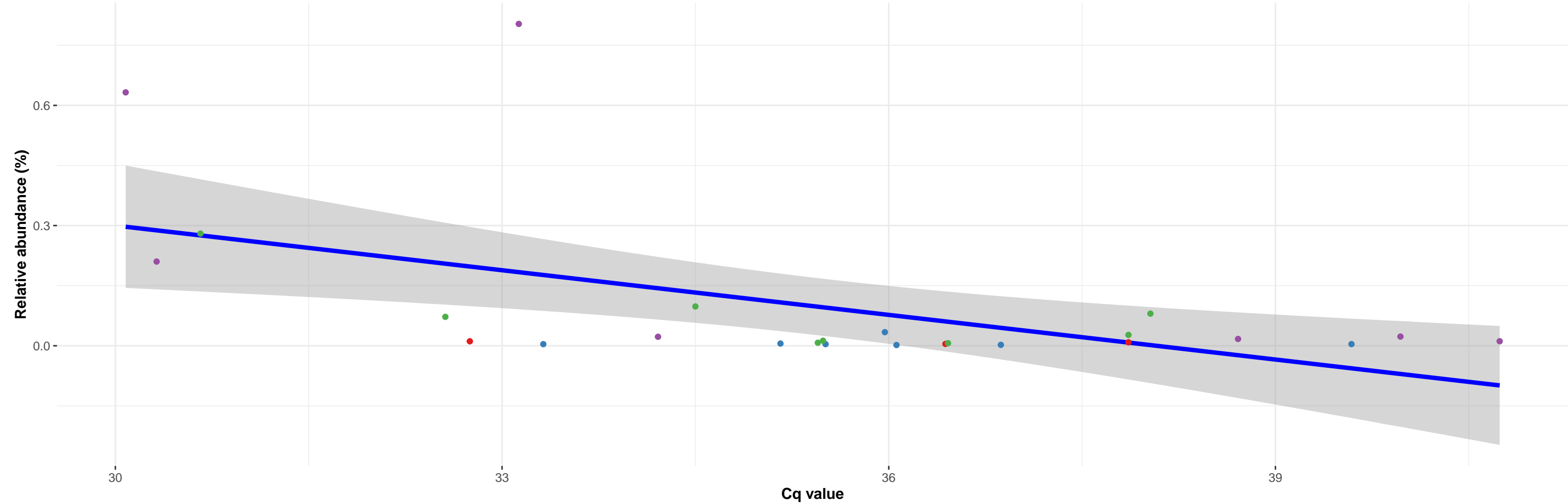


k\_\_Bacteria; p\_\_Proteobacteria; c\_\_Gammaproteobacteria; o\_\_Enterobacteriales; f\_\_Enterobacteriaceae; g\_\_Plesiomonas; Ambiguous\_taxa

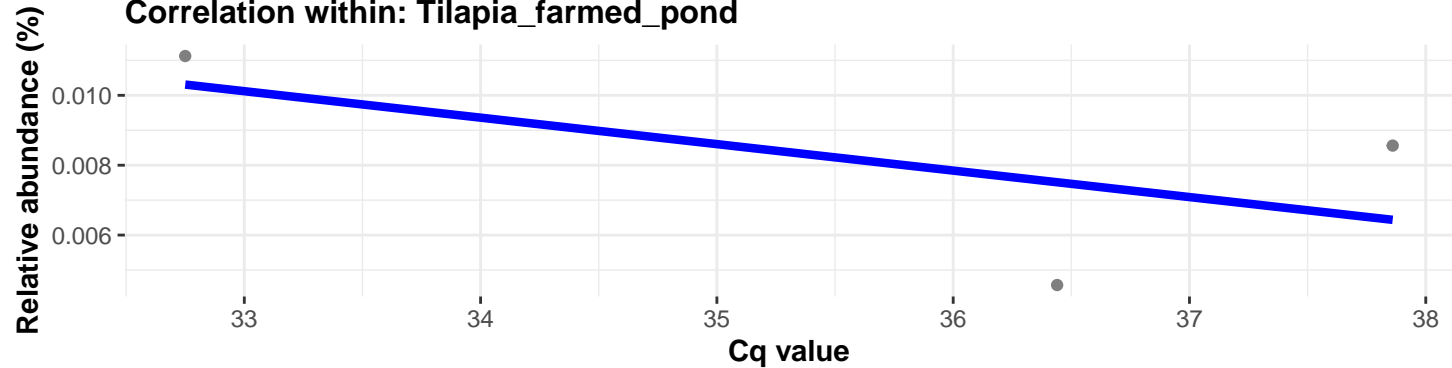
featureID: 913a3599bef09a615b00dee32ead1f48

Correlation with all samples

$\log_e(S) = 8.195$ ,  $p = 0.052$ ,  $\hat{\rho}_{\text{Spearman}} = -0.394$ ,  $CI_{95\%} [-0.689, 0.014]$ ,  $n_{\text{pairs}} = 25$

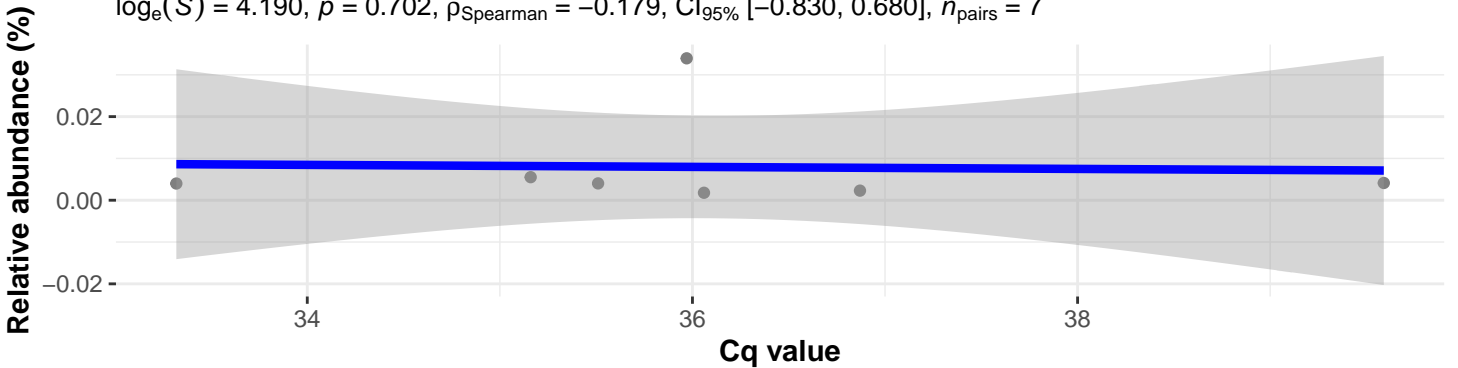


Correlation within: Tilapia\_farmed\_pond



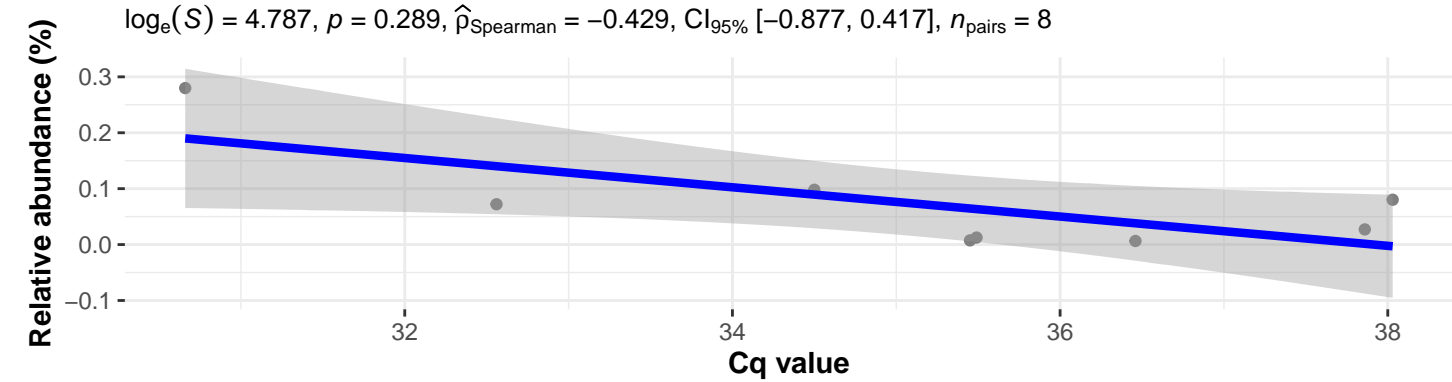
Correlation within: Tilapia\_farmed\_lake

$\log_e(S) = 4.190$ ,  $p = 0.702$ ,  $\hat{\rho}_{\text{Spearman}} = -0.179$ ,  $CI_{95\%} [-0.830, 0.680]$ ,  $n_{\text{pairs}} = 7$



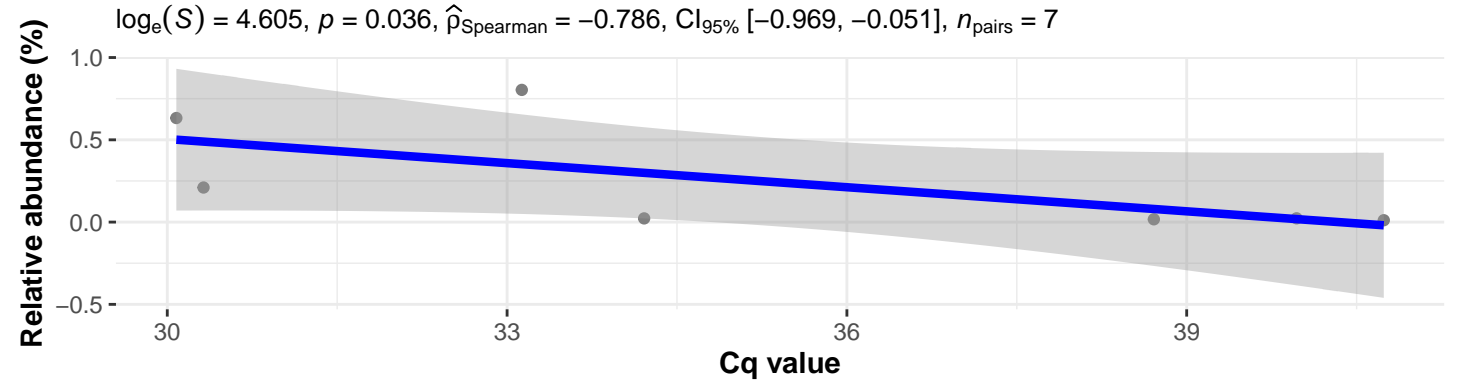
Correlation within: Tilapia\_wild\_lake

$\log_e(S) = 4.787$ ,  $p = 0.289$ ,  $\hat{\rho}_{\text{Spearman}} = -0.429$ ,  $CI_{95\%} [-0.877, 0.417]$ ,  $n_{\text{pairs}} = 8$



Correlation within: Perch\_wild\_lake

$\log_e(S) = 4.605$ ,  $p = 0.036$ ,  $\hat{\rho}_{\text{Spearman}} = -0.786$ ,  $CI_{95\%} [-0.969, -0.051]$ ,  $n_{\text{pairs}} = 7$

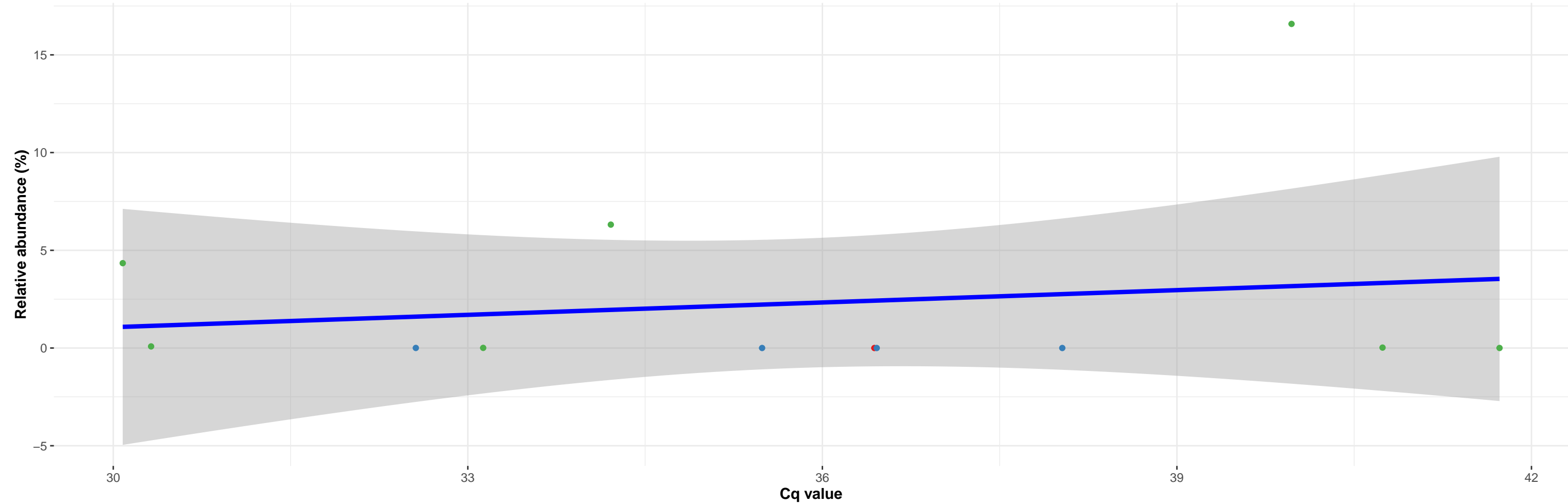


k\_\_Bacteria; p\_\_Firmicutes; c\_\_Clostridia; o\_\_Clostridiales; f\_\_Clostridiaceae 1; NA; NA

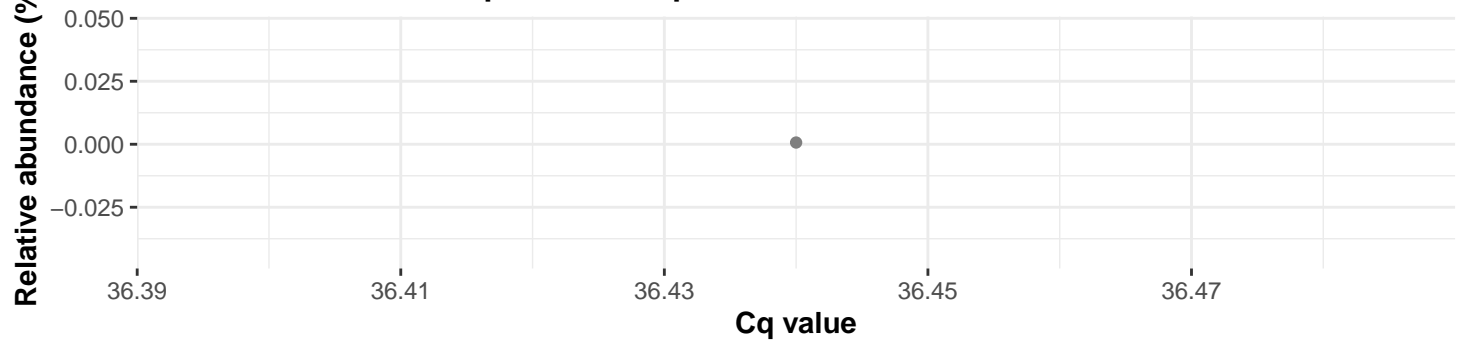
featureID: d36c9dfa26099ffe57512e6dfbe0b8

Correlation with all samples

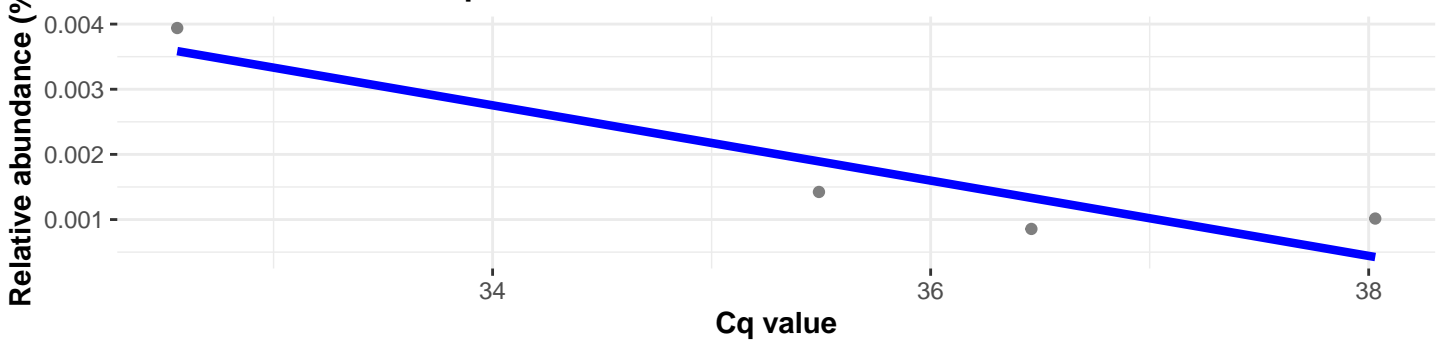
$\log_e(S) = 5.881$ ,  $p = 0.430$ ,  $\hat{\rho}_{\text{Spearman}} = -0.252$ ,  $CI_{95\%} [-0.731, 0.393]$ ,  $n_{\text{pairs}} = 12$



Correlation within: Tilapia\_farmed\_pond

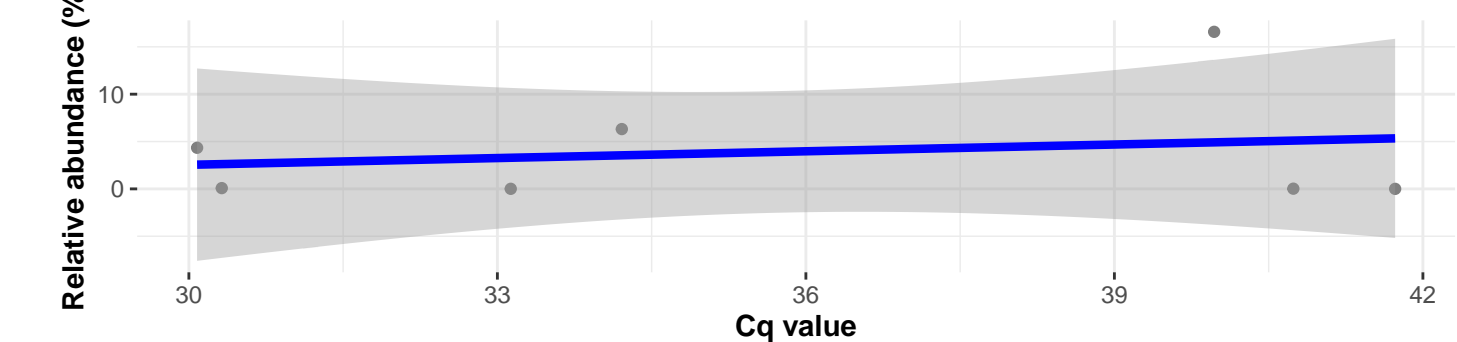


Correlation within: Tilapia\_wild\_lake



Correlation within: Perch\_wild\_lake

$\log_e(S) = 4.304$ ,  $p = 0.482$ ,  $\hat{\rho}_{\text{Spearman}} = -0.321$ ,  $CI_{95\%} [-0.872, 0.589]$ ,  $n_{\text{pairs}} = 7$

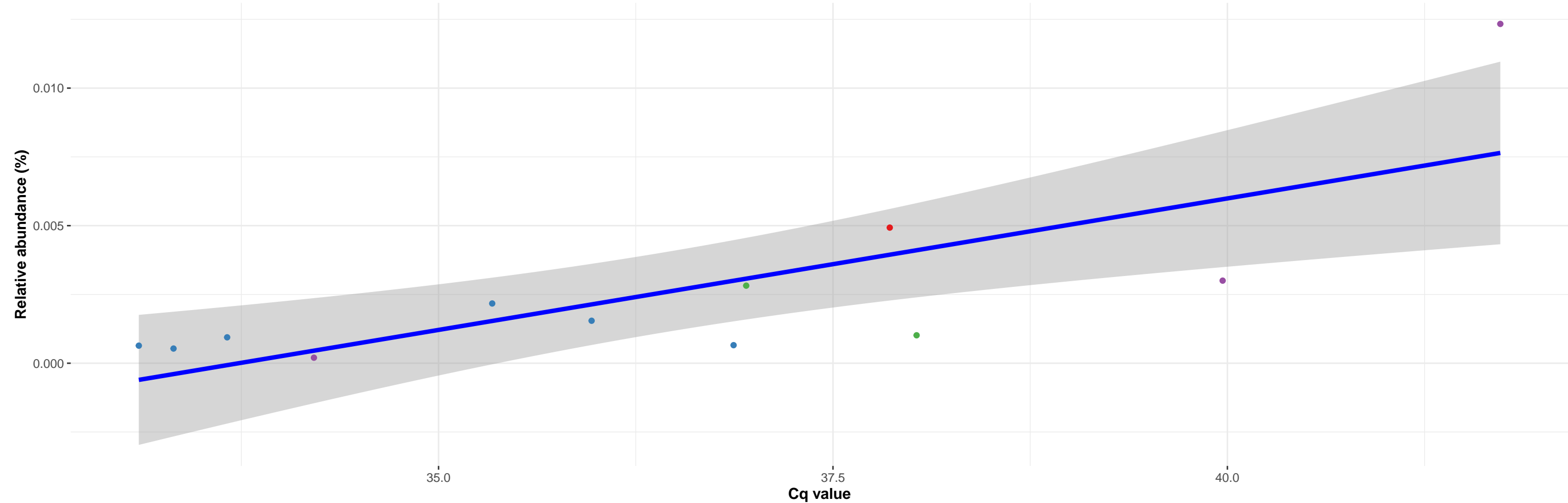


k\_\_Bacteria; p\_\_Proteobacteria; c\_\_Gammaproteobacteria; o\_\_Betaproteobacteriales; f\_\_Burkholderiaceae; g\_\_Ralstonia; NA

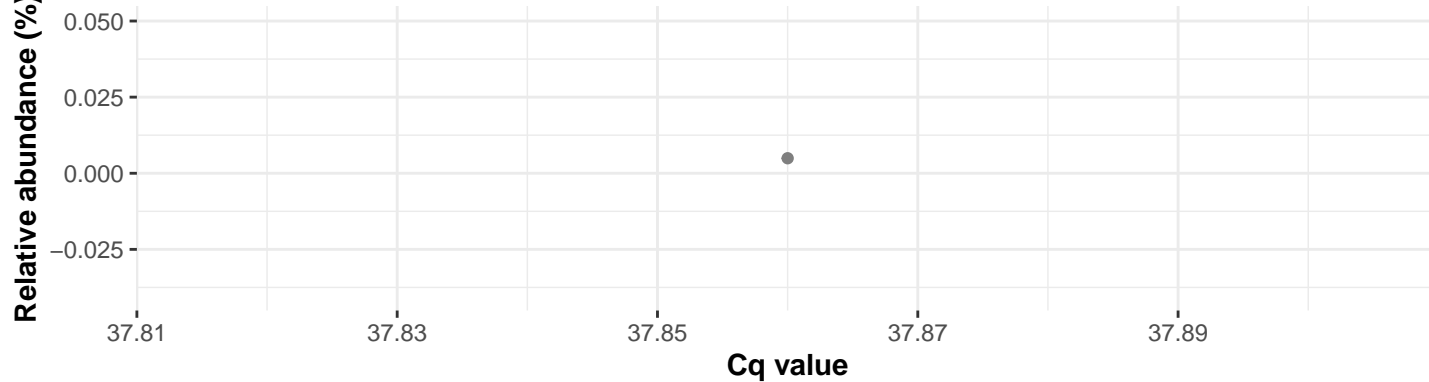
featureID: 3638f2062c305c79df283ef573a10b97

Correlation with all samples

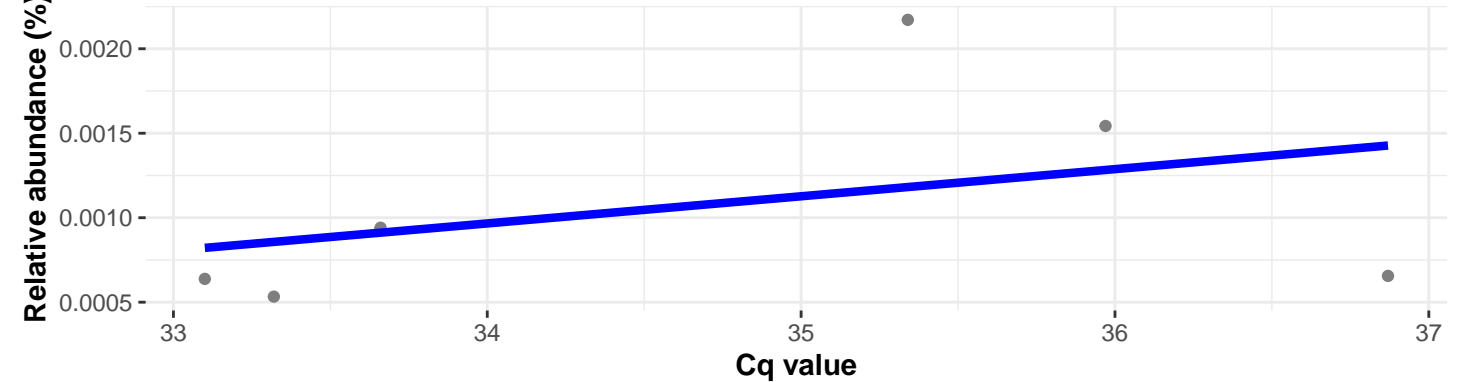
$\log_e(S) = 4.060$ ,  $p = 0.002$ ,  $\hat{\rho}_{\text{Spearman}} = 0.797$ ,  $CI_{95\%} [0.395, 0.943]$ ,  $n_{\text{pairs}} = 12$



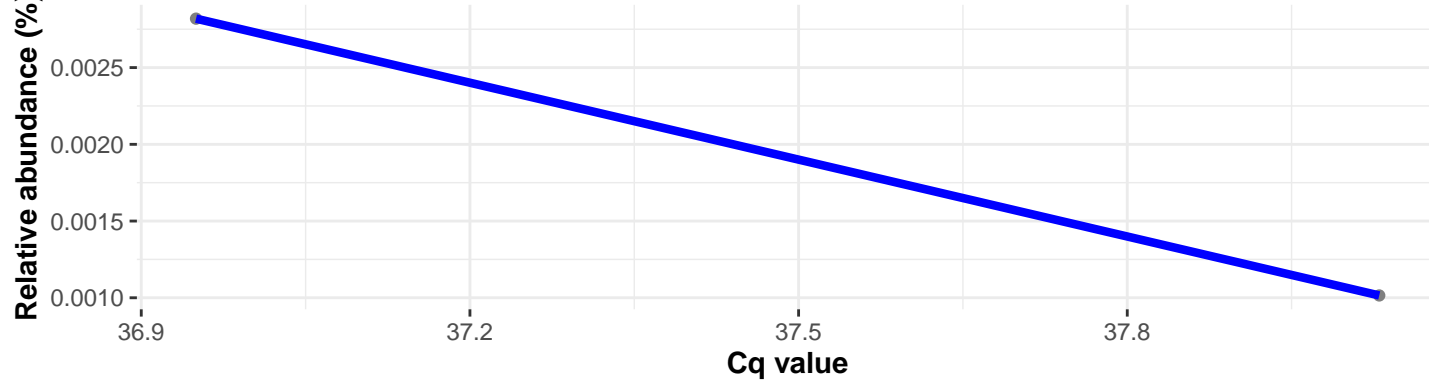
Correlation within: Tilapia\_farmed\_pond



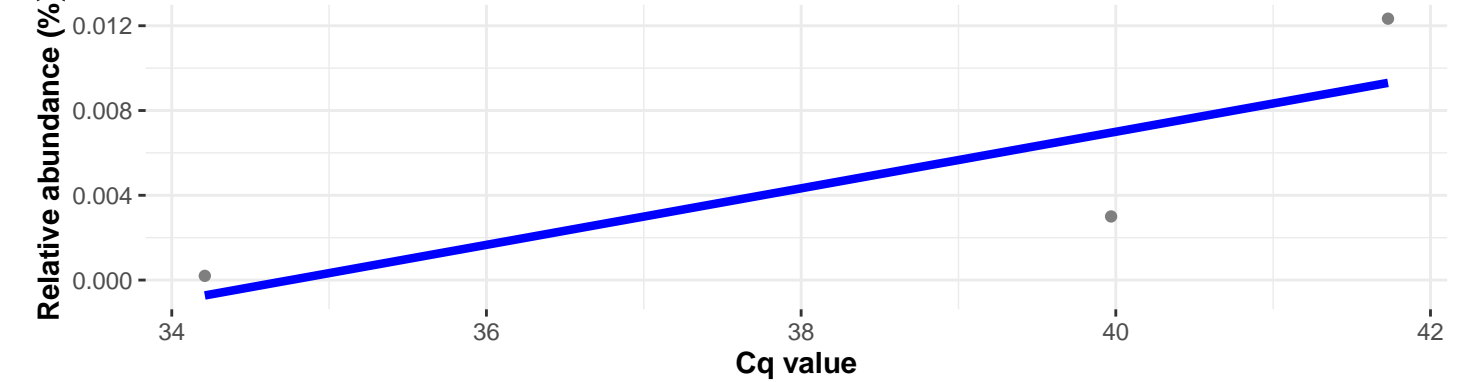
Correlation within: Tilapia\_farmed\_lake



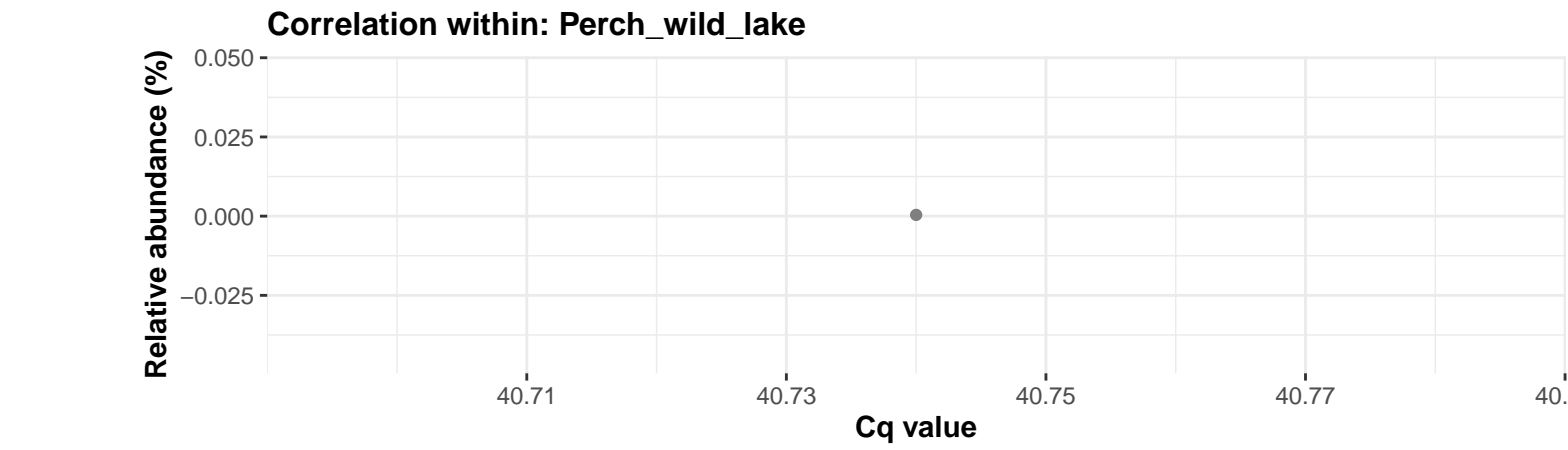
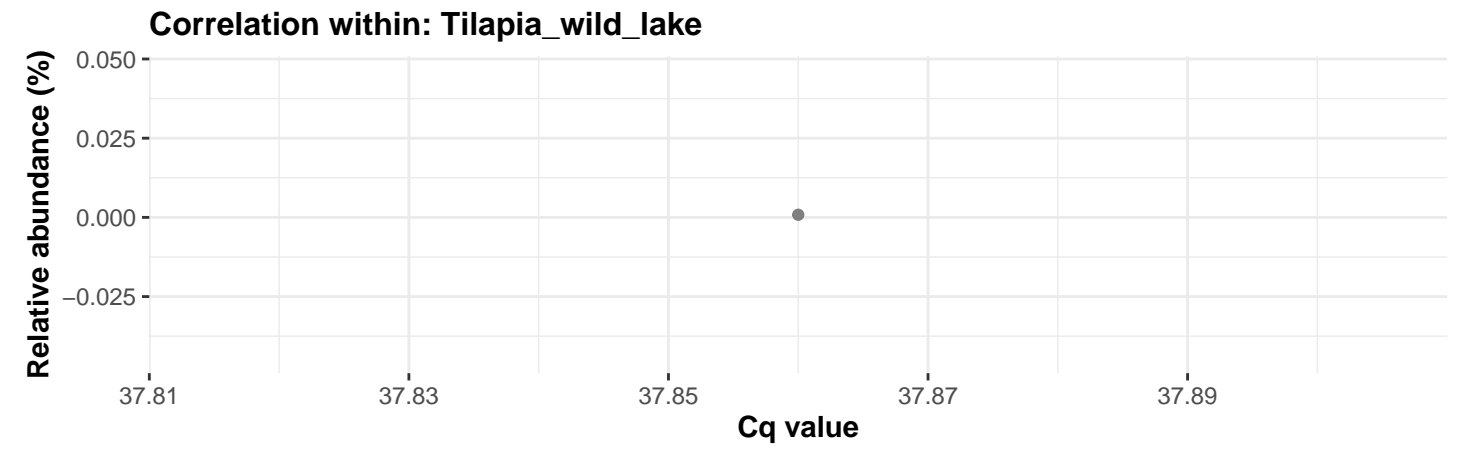
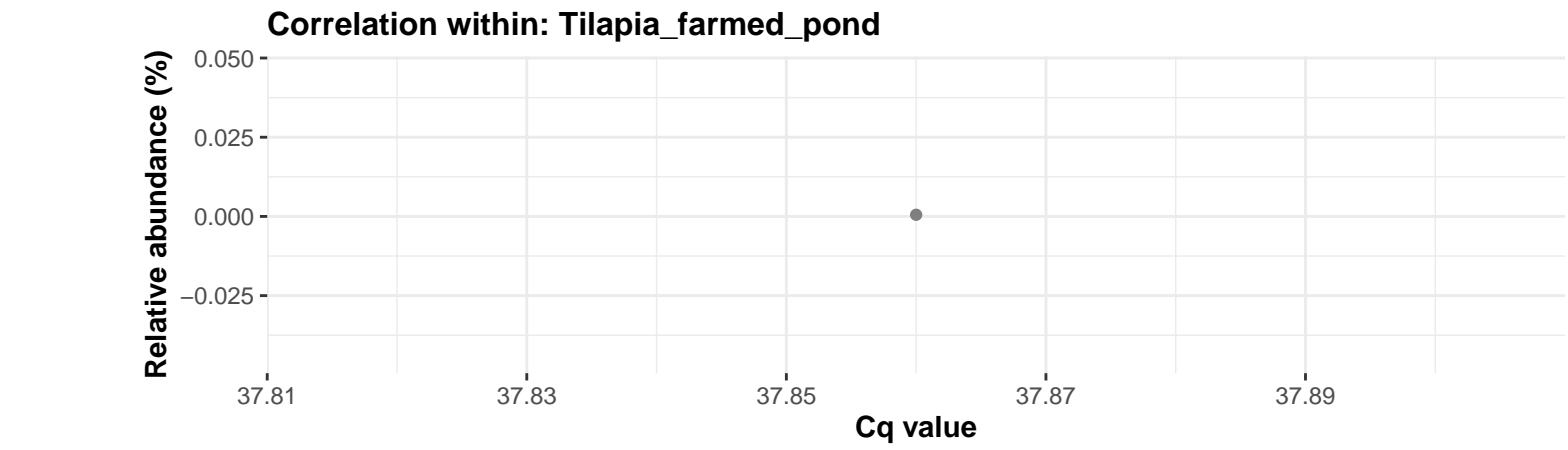
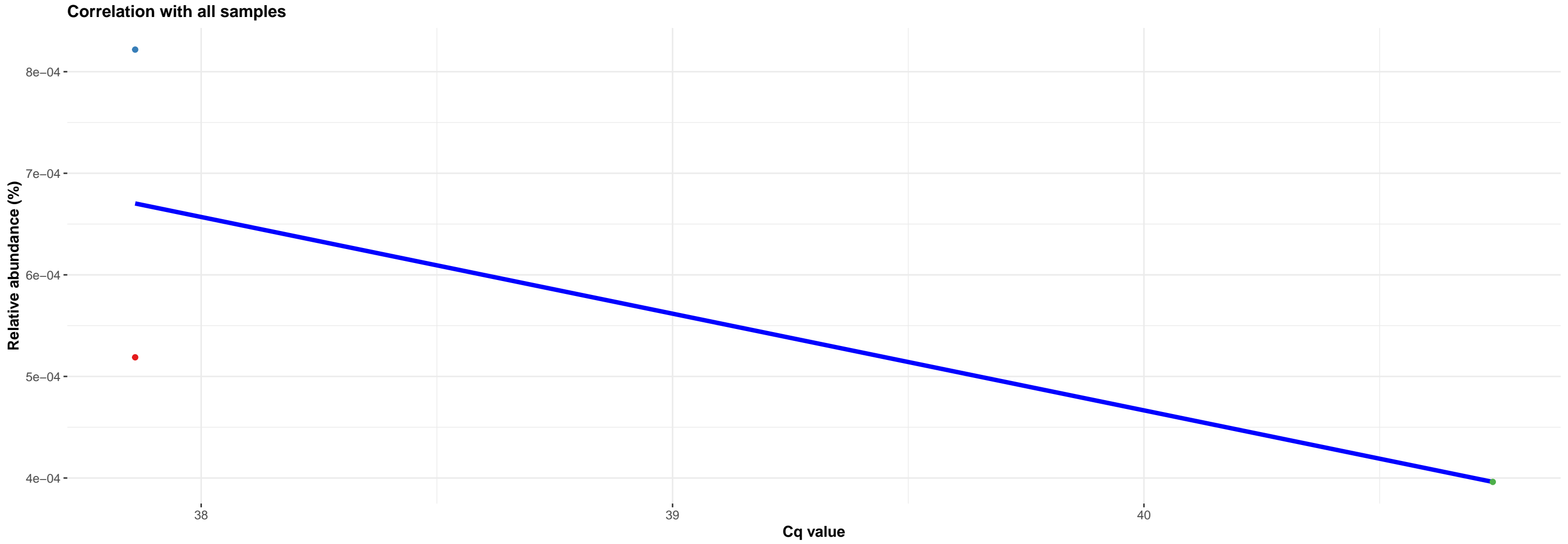
Correlation within: Tilapia\_wild\_lake



Correlation within: Perch\_wild\_lake



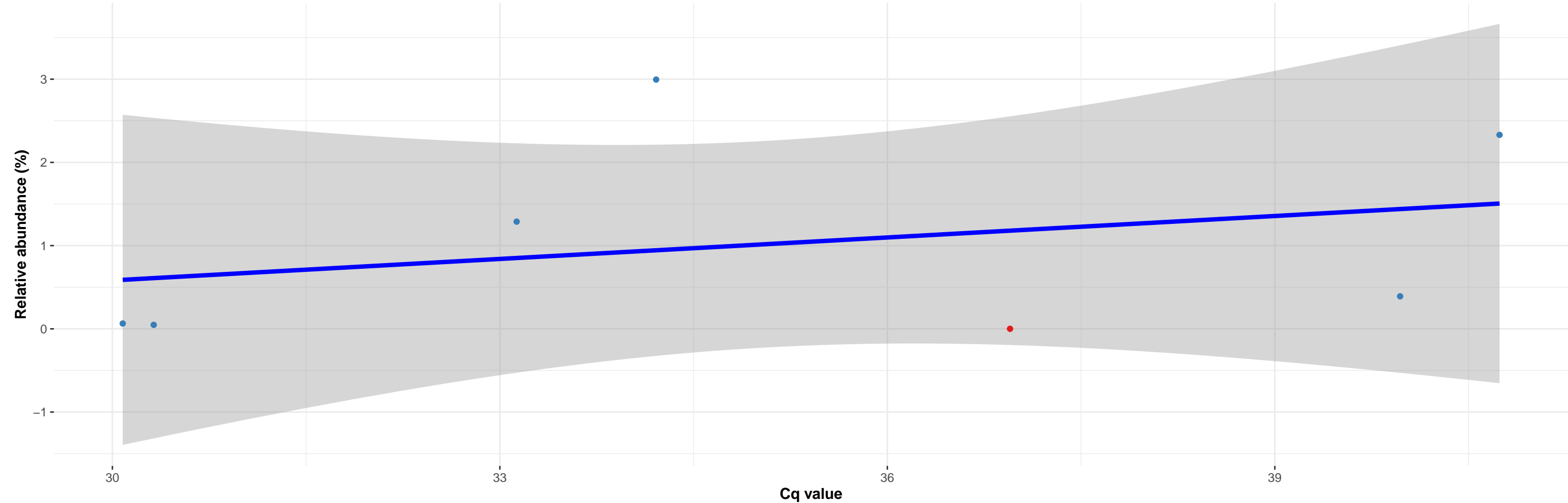
featureID: 8f2ddde9ccf2d7afe5abf35614fe5b43



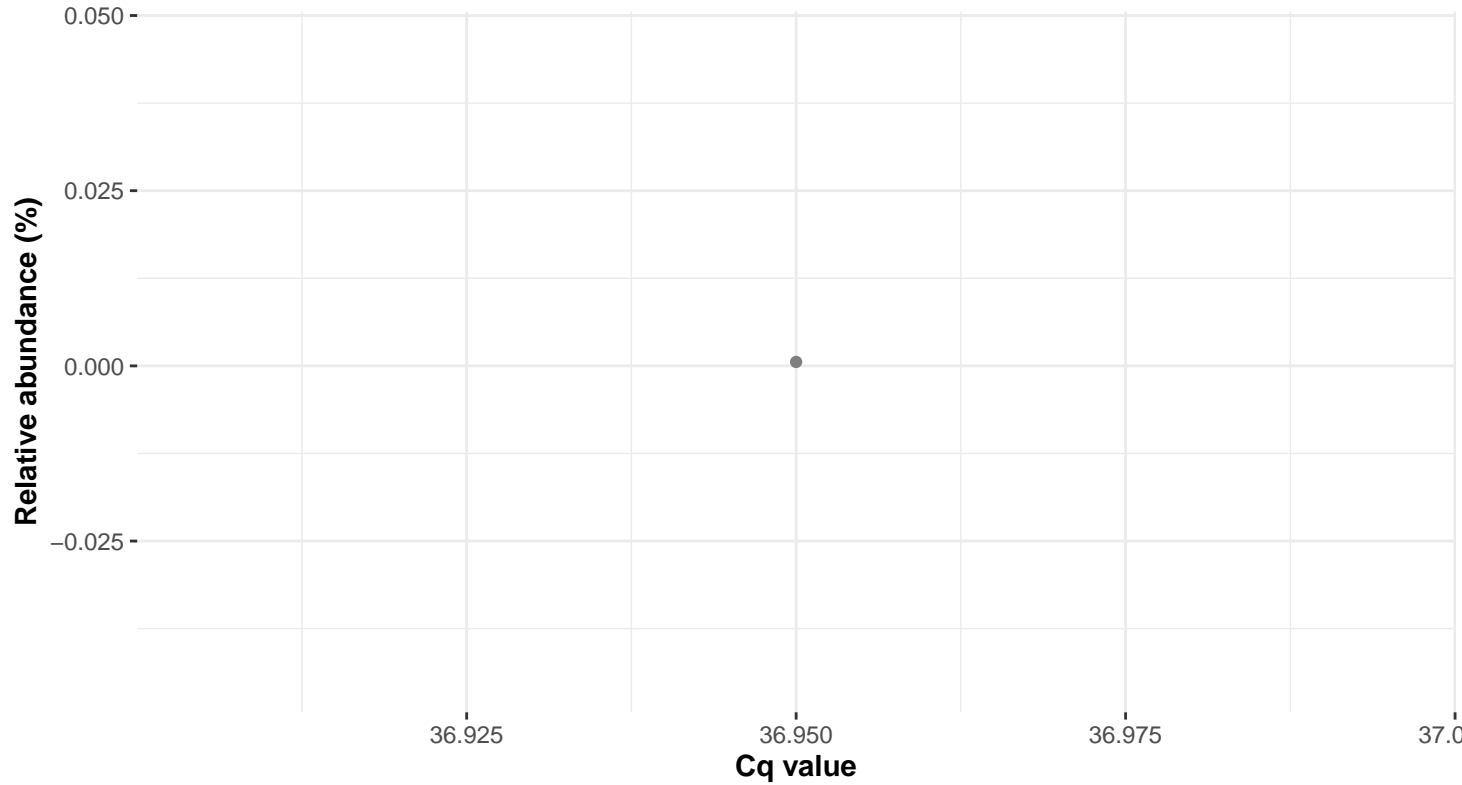
featureID: 249270189cd8e1c30eb0d62d77589cb8

Correlation with all samples

$\log_e(S) = 3.638$ ,  $p = 0.482$ ,  $\hat{\rho}_{\text{Spearman}} = 0.321$ ,  $CI_{95\%} [-0.589, 0.872]$ ,  $n_{\text{pairs}} = 7$

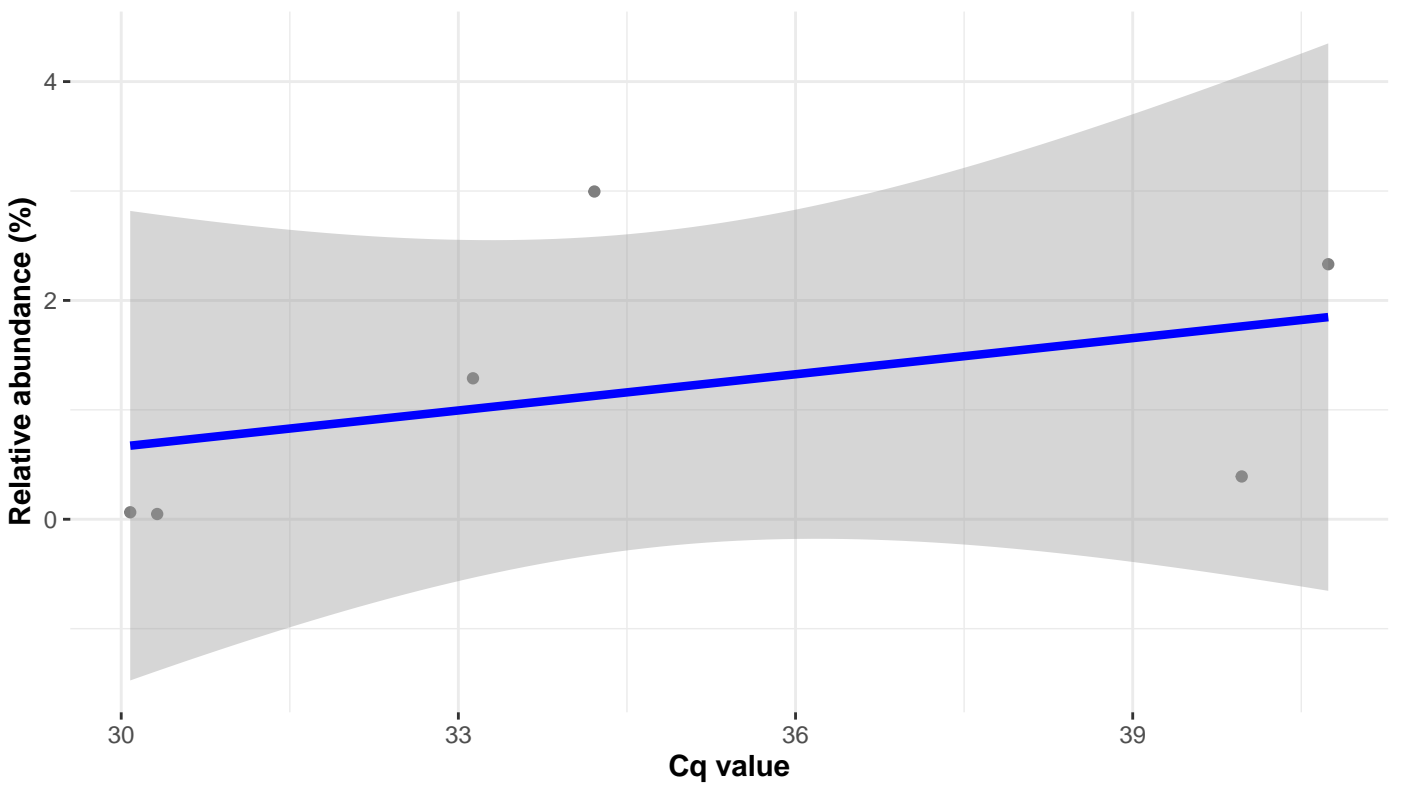


Correlation within: Tilapia\_wild\_lake



Correlation within: Perch\_wild\_lake

$\log_e(S) = 2.485$ ,  $p = 0.156$ ,  $\hat{\rho}_{\text{Spearman}} = 0.657$ ,  $CI_{95\%} [-0.360, 0.961]$ ,  $n_{\text{pairs}} = 6$



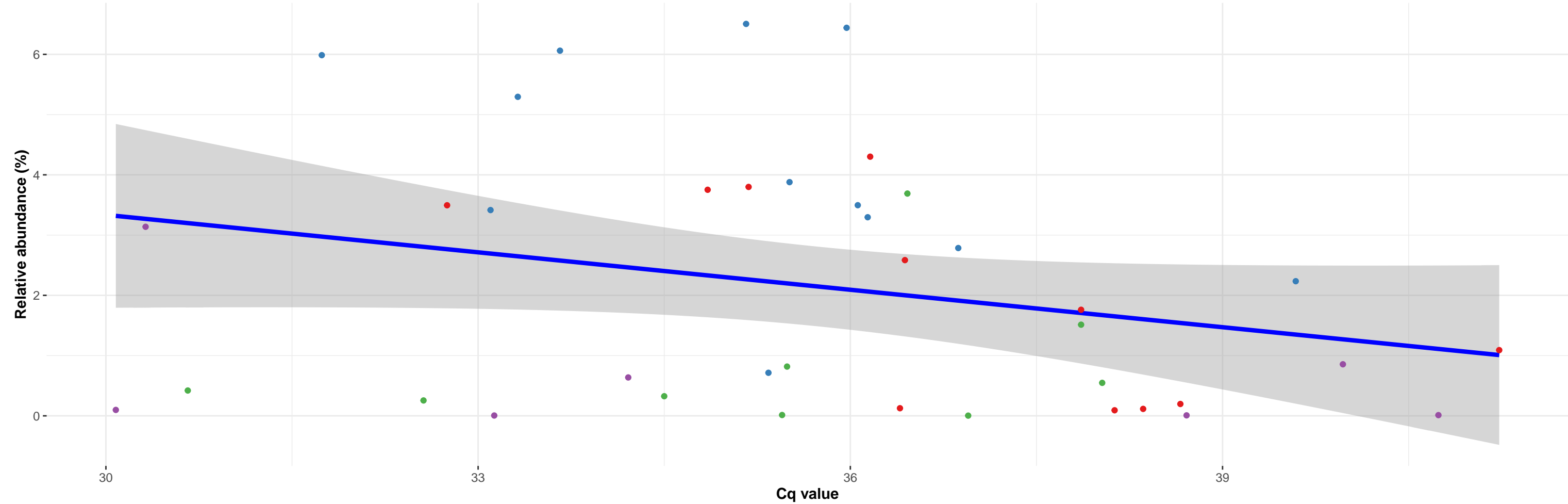


k\_\_Bacteria; p\_\_Fusobacteria; c\_\_Fusobacteriia; o\_\_Fusobacteriales; f\_\_Fusobacteriaceae; g\_\_Cetobacterium; s\_\_uncultured bacterium

featureID: 7732d6712ceae4666bd66aba7880c6f1

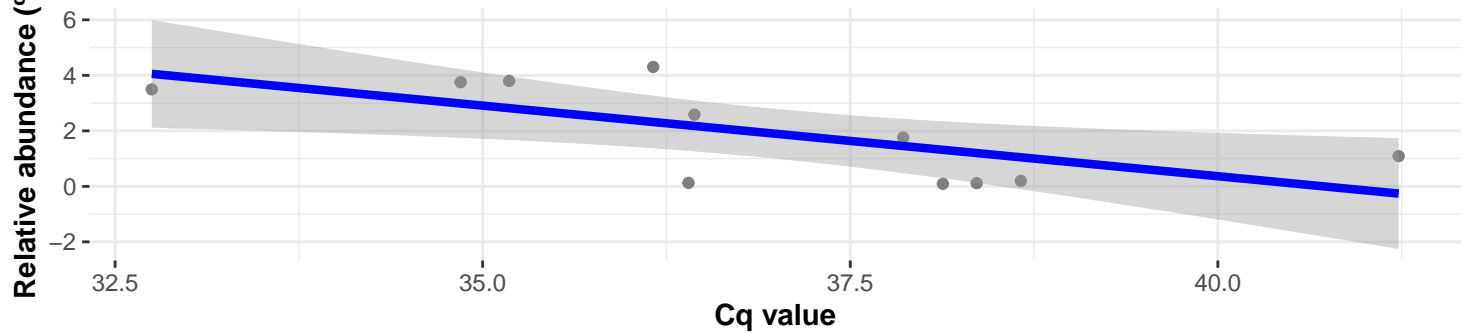
**Correlation with all samples**

$\log_e(S) = 9.443$ ,  $p = 0.088$ ,  $\hat{\rho}_{\text{Spearman}} = -0.277$ ,  $\text{CI}_{95\%} [-0.552, 0.052]$ ,  $n_{\text{pairs}} = 39$



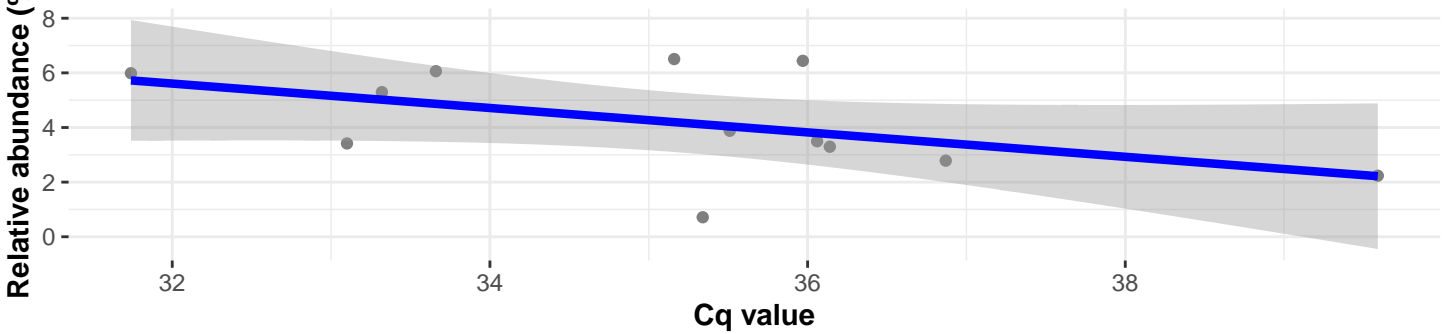
**Correlation within: Tilapia\_farmed\_pond**

$\log_e(S) = 5.919$ ,  $p = 0.019$ ,  $\hat{\rho}_{\text{Spearman}} = -0.691$ ,  $\text{CI}_{95\%} [-0.916, -0.135]$ ,  $n_{\text{pairs}} = 11$



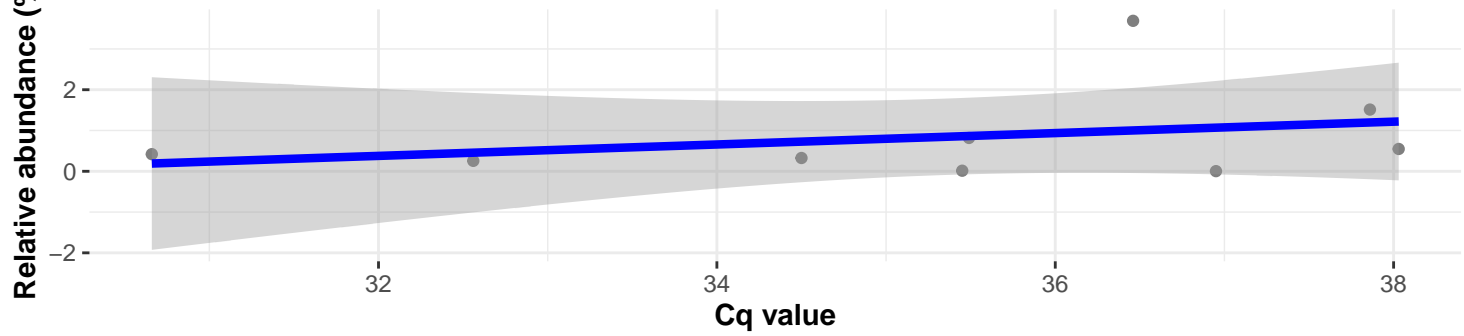
**Correlation within: Tilapia\_farmed\_lake**

$\log_e(S) = 6.054$ ,  $p = 0.106$ ,  $\hat{\rho}_{\text{Spearman}} = -0.490$ ,  $\text{CI}_{95\%} [-0.836, 0.136]$ ,  $n_{\text{pairs}} = 12$



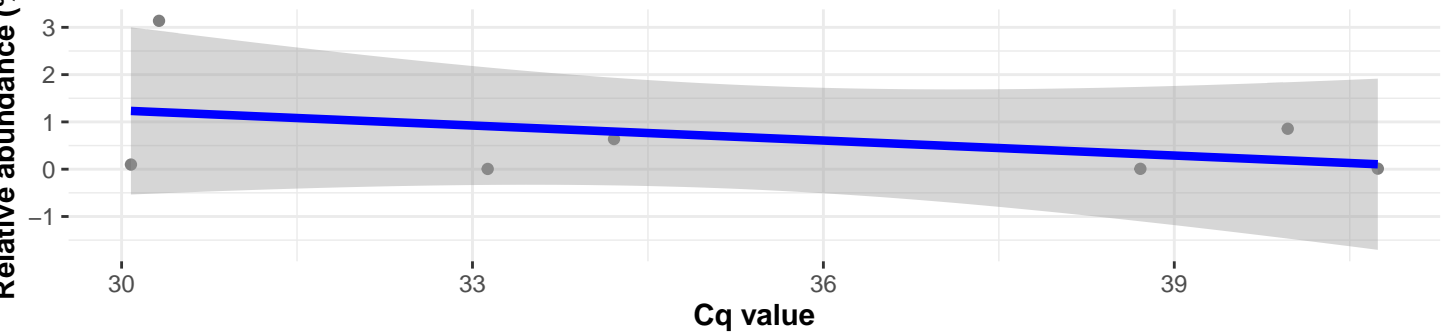
**Correlation within: Tilapia\_wild\_lake**

$\log_e(S) = 4.382$ ,  $p = 0.381$ ,  $\hat{\rho}_{\text{Spearman}} = 0.333$ ,  $\text{CI}_{95\%} [-0.444, 0.824]$ ,  $n_{\text{pairs}} = 9$



**Correlation within: Perch\_wild\_lake**

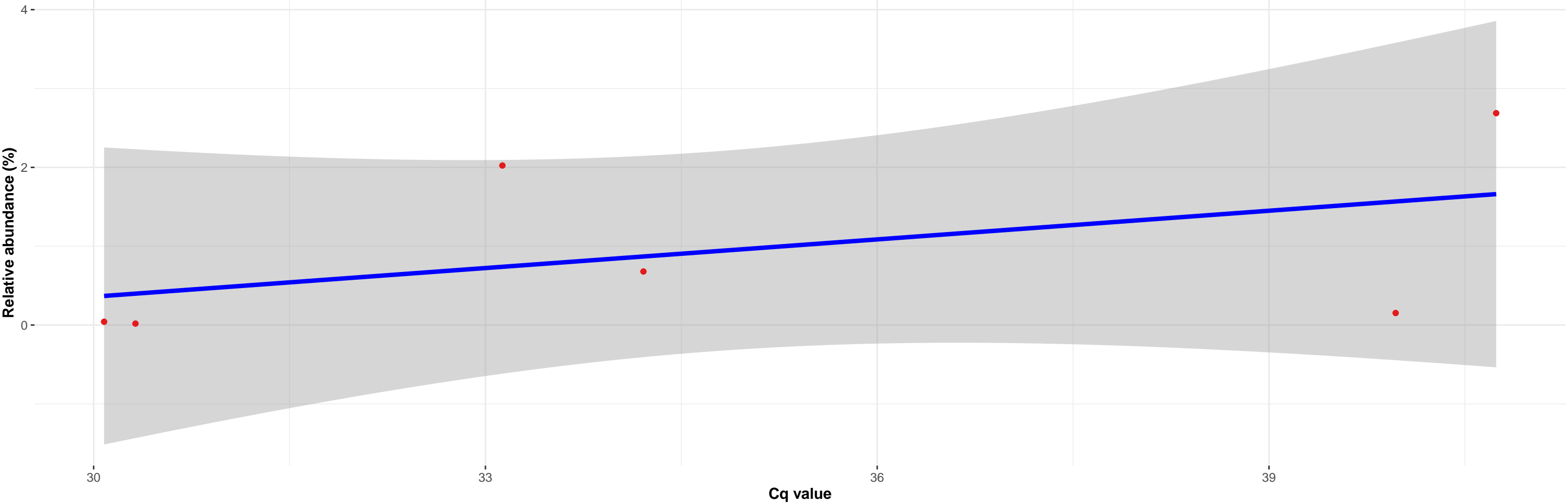
$\log_e(S) = 4.159$ ,  $p = 0.760$ ,  $\hat{\rho}_{\text{Spearman}} = -0.143$ ,  $\text{CI}_{95\%} [-0.819, 0.699]$ ,  $n_{\text{pairs}} = 7$



featureID: 4c5af046872782b10af8fff902cdf641

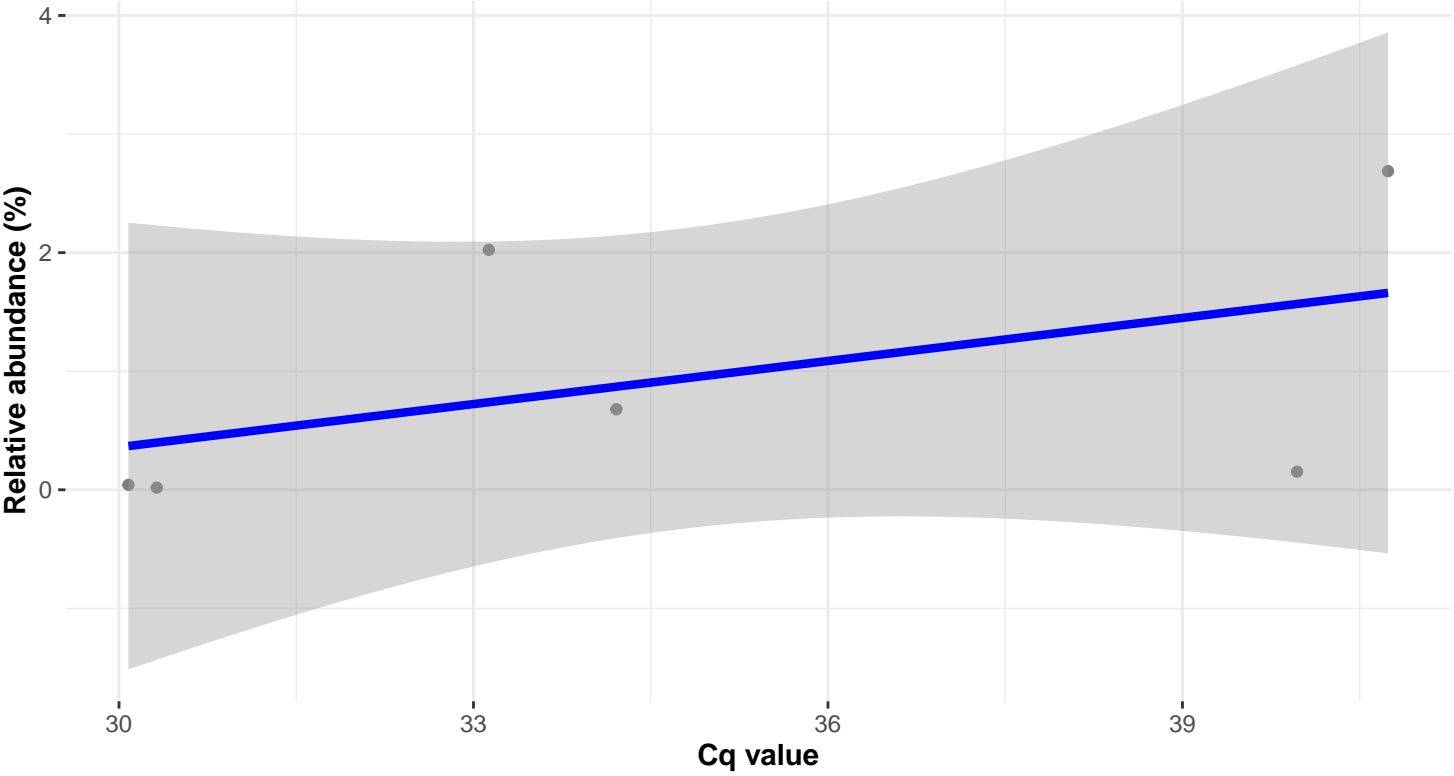
Correlation with all samples

$\log_e(S) = 2.303$ ,  $p = 0.111$ ,  $\hat{\rho}_{\text{Spearman}} = 0.714$ ,  $\text{CI}_{95\%} [-0.263, 0.968]$ ,  $n_{\text{pairs}} = 6$



Correlation within: Perch\_wild\_lake

$\log_e(S) = 2.303$ ,  $p = 0.111$ ,  $\hat{\rho}_{\text{Spearman}} = 0.714$ ,  $\text{CI}_{95\%} [-0.263, 0.968]$ ,  $n_{\text{pairs}} = 6$

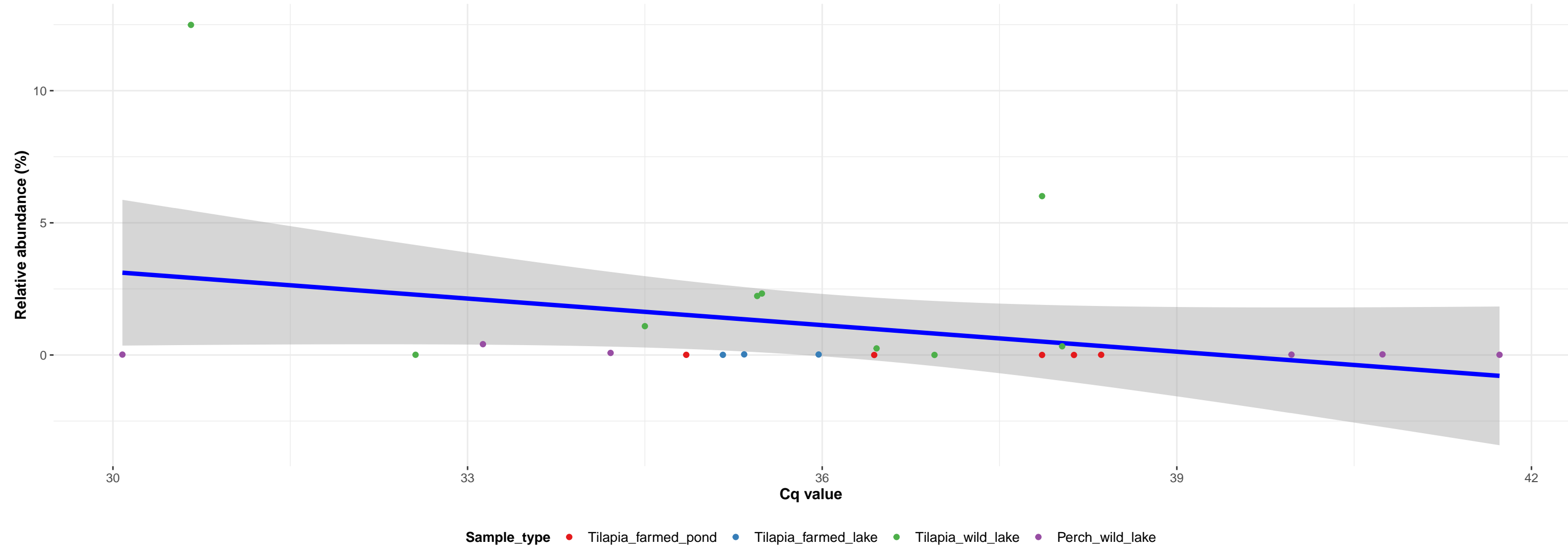


k\_\_Bacteria; p\_\_Proteobacteria; c\_\_Gammaproteobacteria; o\_\_Aeromonadales; f\_\_Aeromonadaceae; g\_\_Aeromonas; NA

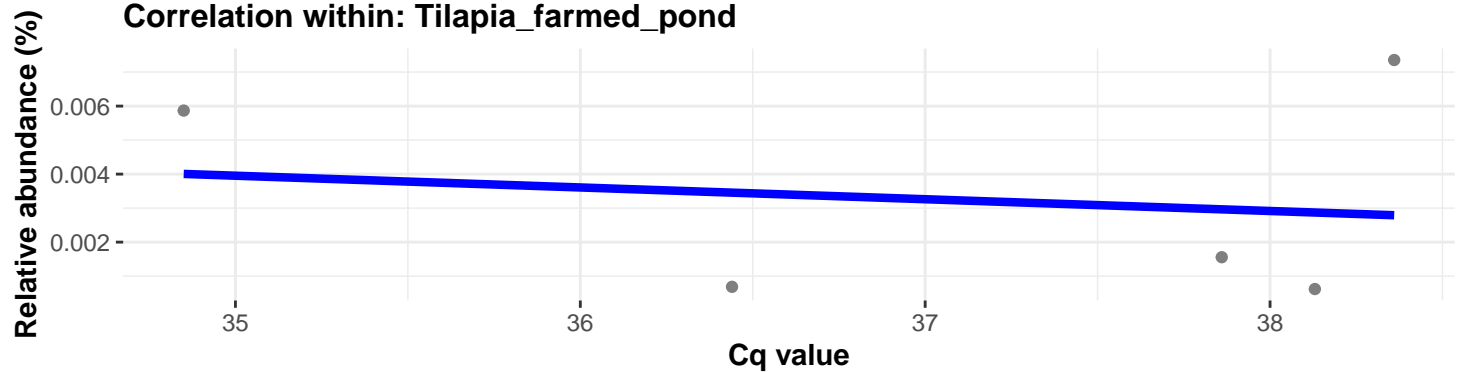
featureID: dacf22eb1a2065568c1175d1a76c9dc7

Correlation with all samples

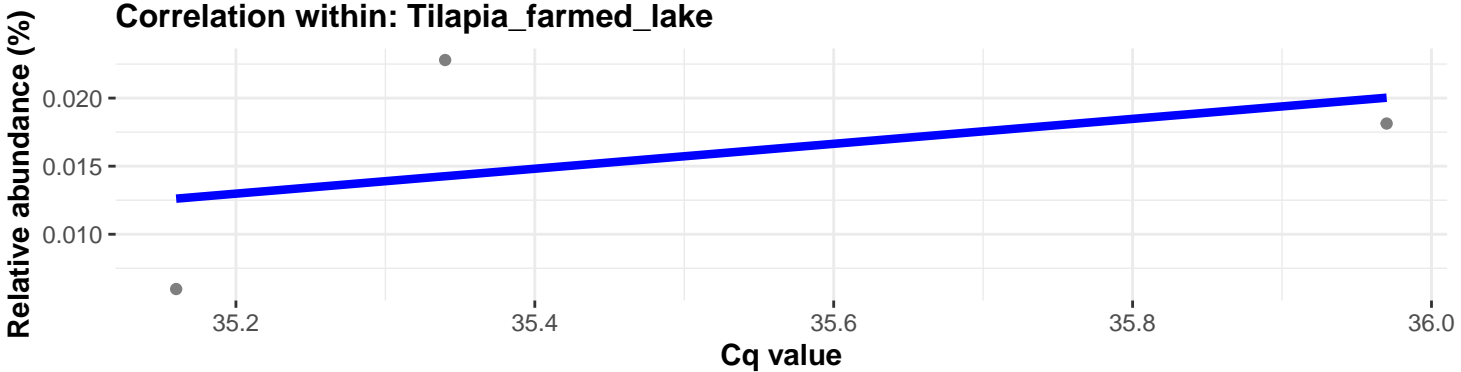
$\log_e(S) = 7.887$ ,  $p = 0.143$ ,  $\hat{\rho}_{\text{Spearman}} = -0.315$ ,  $CI_{95\%} [-0.651, 0.125]$ ,  $n_{\text{pairs}} = 23$



Correlation within: Tilapia\_farmed\_pond

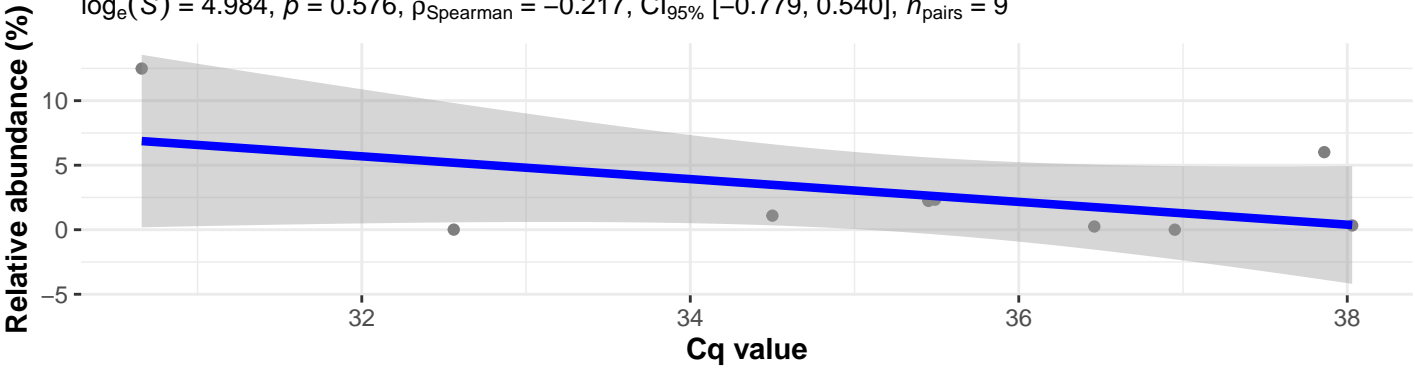


Correlation within: Tilapia\_farmed\_lake



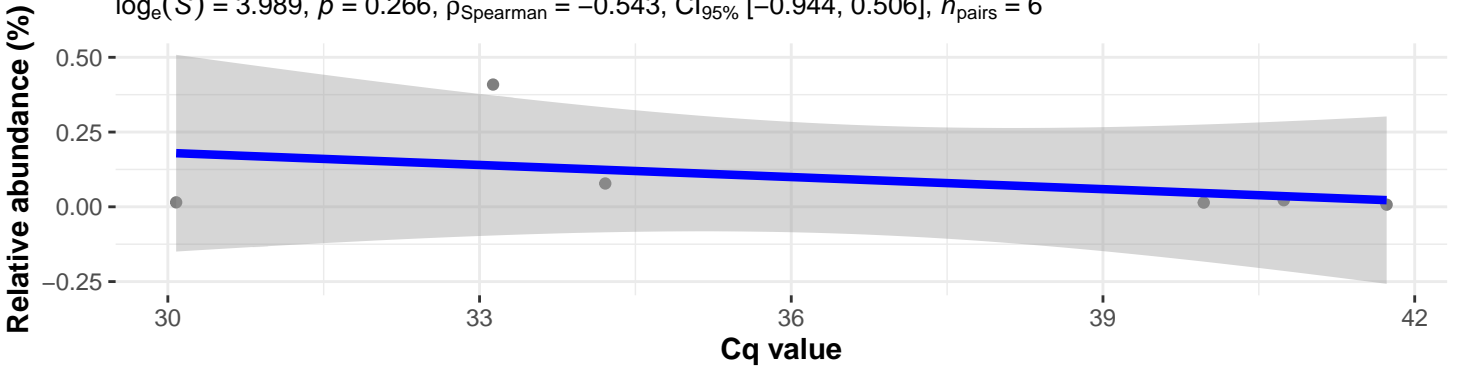
Correlation within: Tilapia\_wild\_lake

$\log_e(S) = 4.984$ ,  $p = 0.576$ ,  $\hat{\rho}_{\text{Spearman}} = -0.217$ ,  $CI_{95\%} [-0.779, 0.540]$ ,  $n_{\text{pairs}} = 9$



Correlation within: Perch\_wild\_lake

$\log_e(S) = 3.989$ ,  $p = 0.266$ ,  $\hat{\rho}_{\text{Spearman}} = -0.543$ ,  $CI_{95\%} [-0.944, 0.506]$ ,  $n_{\text{pairs}} = 6$

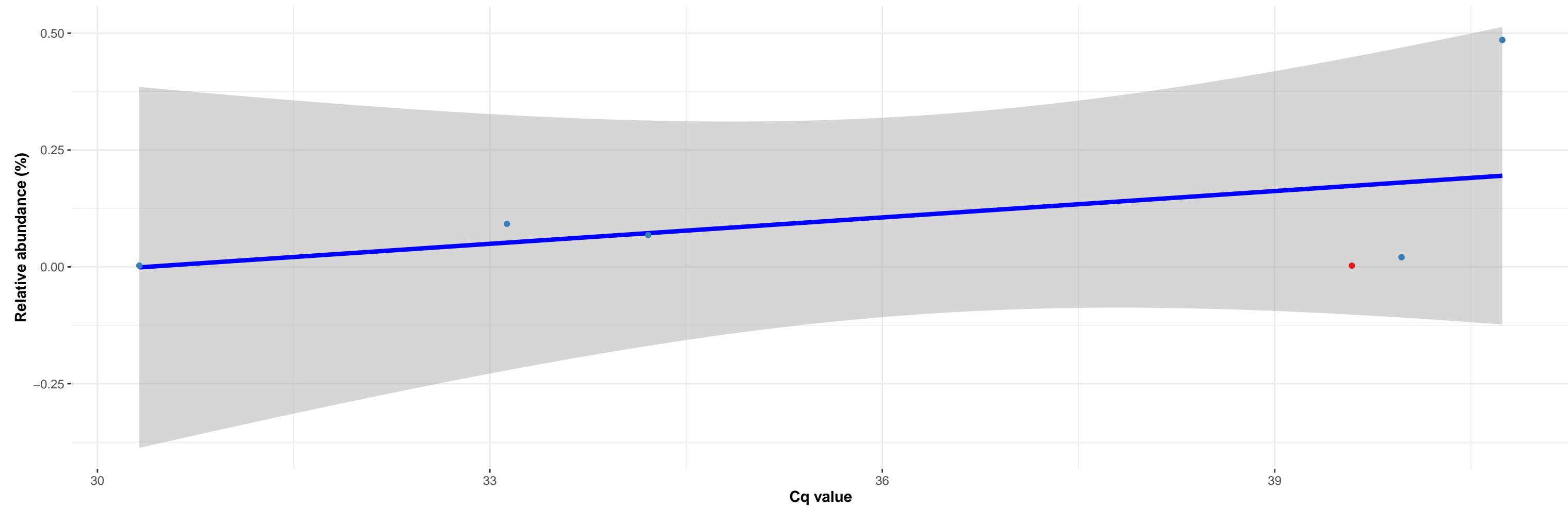


k\_\_Bacteria; p\_\_Firmicutes; c\_\_Clostridia; o\_\_Clostridiales; f\_\_Clostridiaceae 1; g\_\_Clostridium sensu stricto 1; s\_\_uncultured bacterium

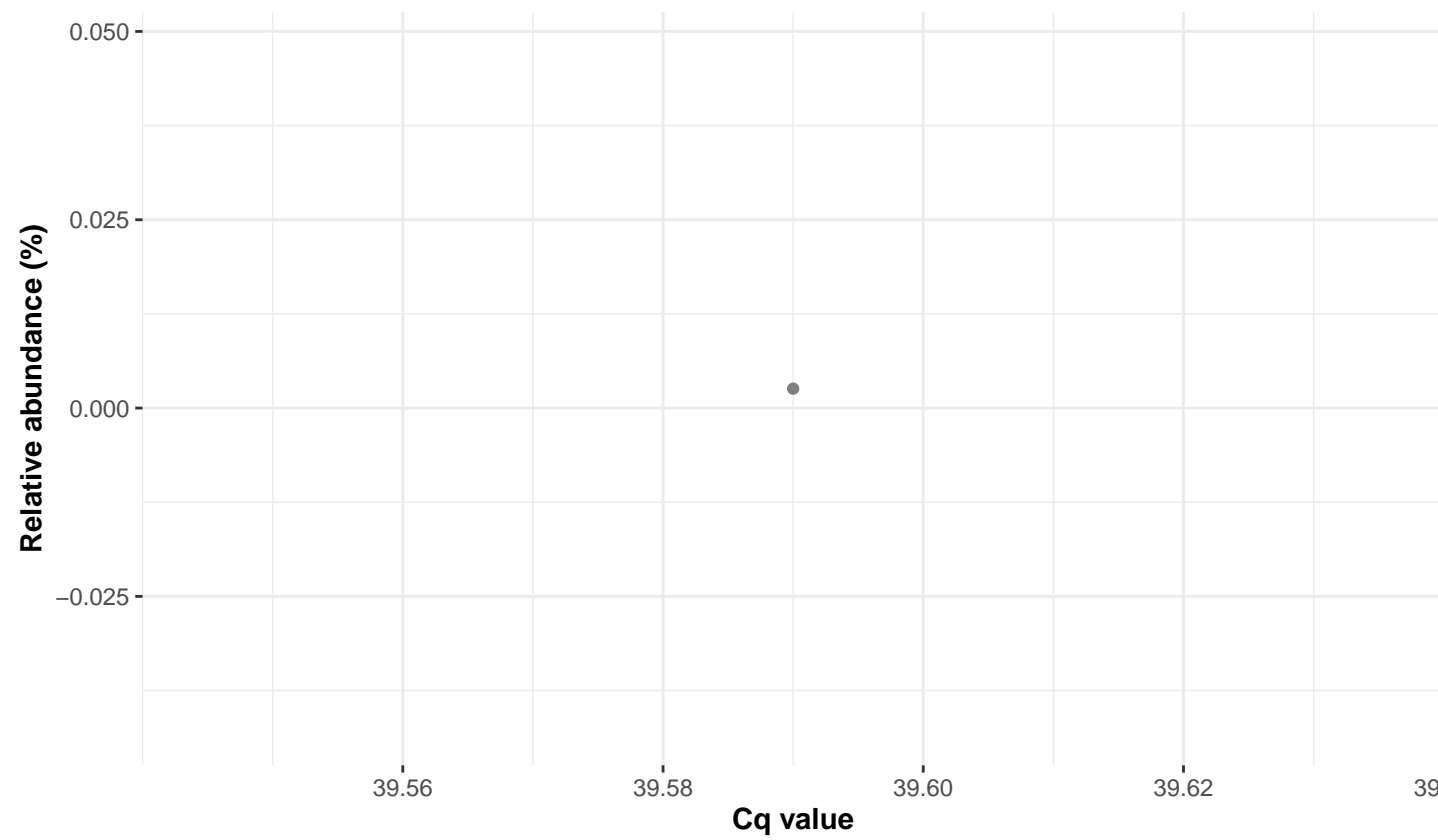
featureID: 4852811146dcf523a9ecf810088a2da5

### Correlation with all samples

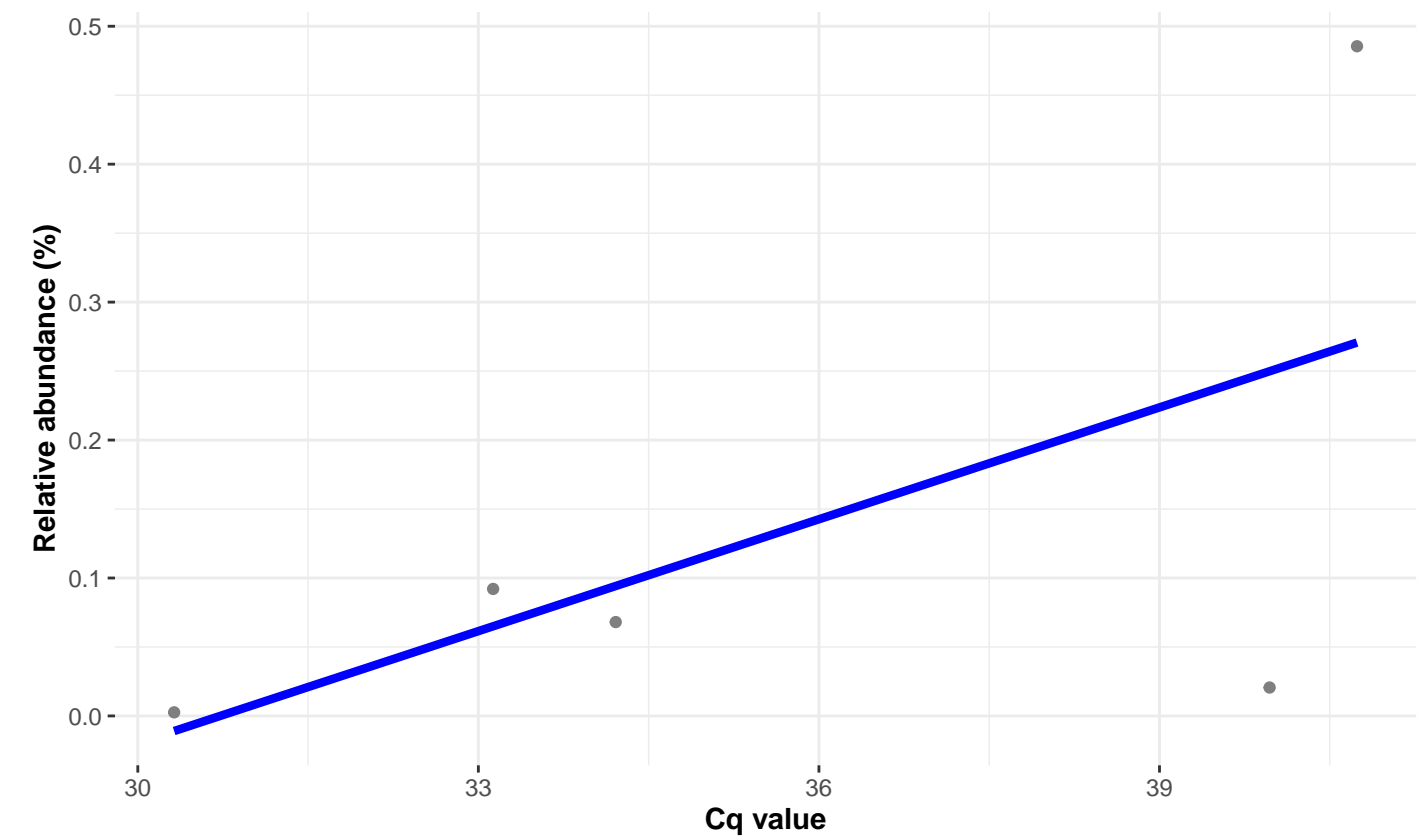
$\log_e(S) = 3.178$ ,  $p = 0.544$ ,  $\hat{\rho}_{\text{Spearman}} = 0.314$ ,  $CI_{95\%} [-0.686, 0.903]$ ,  $n_{\text{pairs}} = 6$



### Correlation within: Tilapia\_farmed\_lake



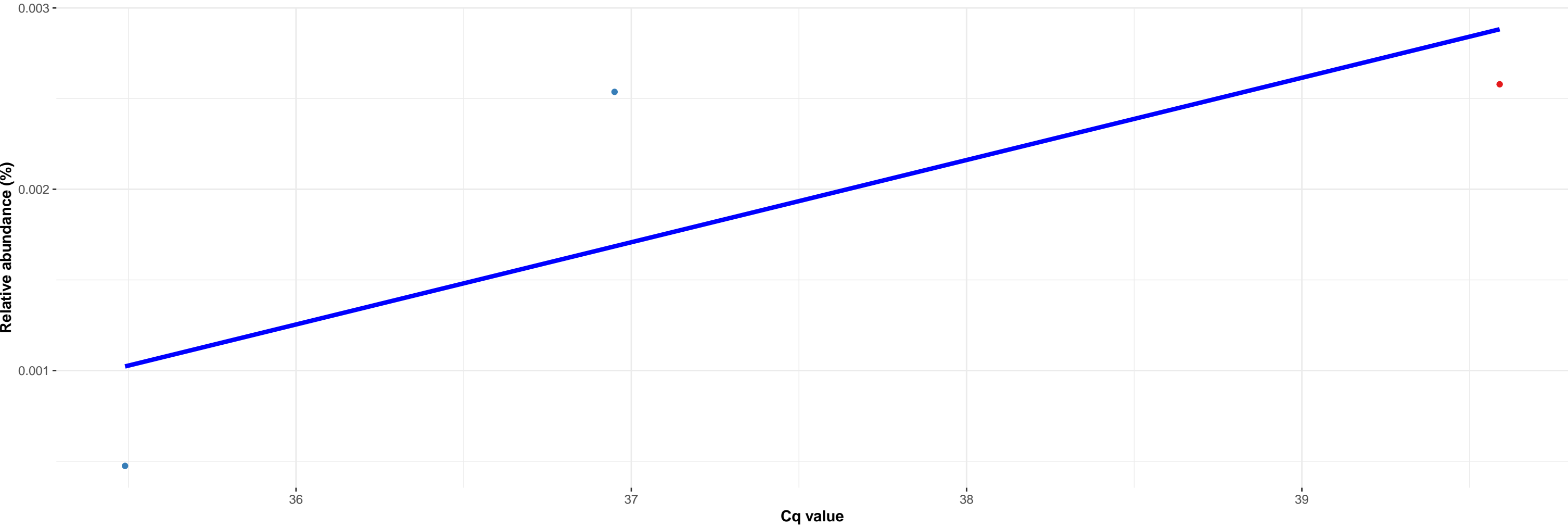
### Correlation within: Perch\_wild\_lake



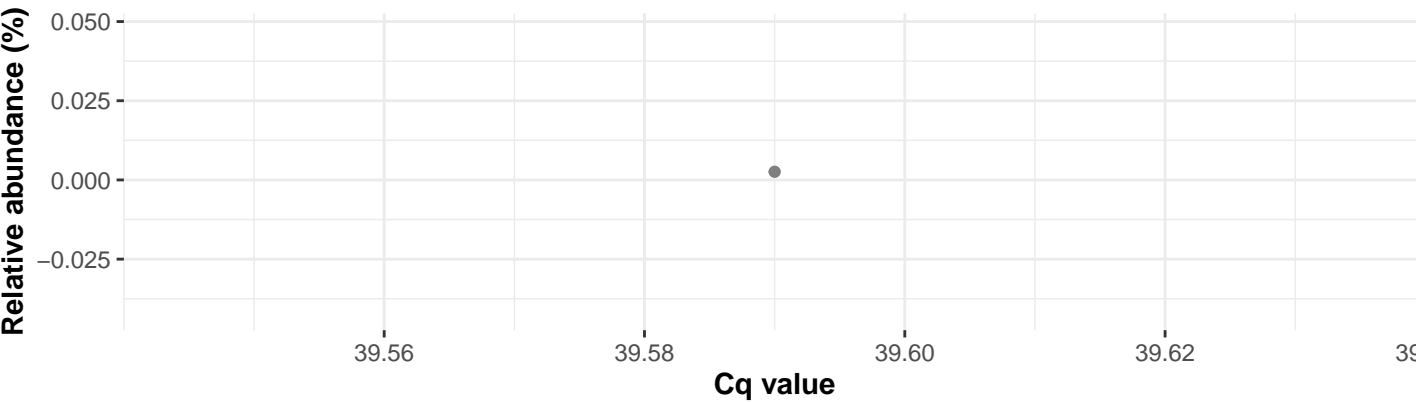
k\_\_Bacteria; p\_\_Firmicutes; c\_\_Bacilli; o\_\_Bacillales; f\_\_Staphylococcaceae; g\_\_Staphylococcus; NA

featureID: 62611dedc42201591d0c89973f903dde

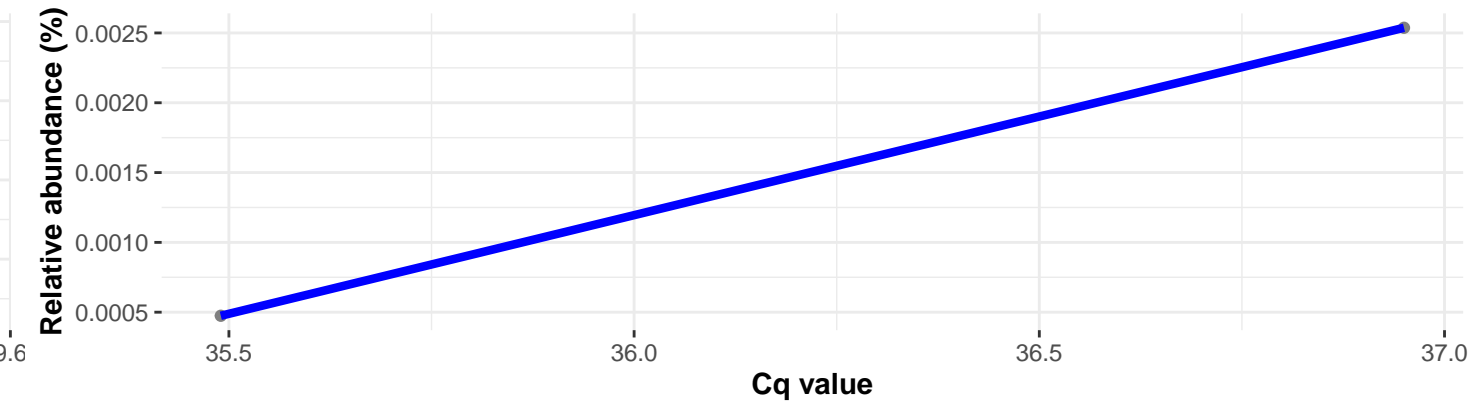
Correlation with all samples



Correlation within: Tilapia\_farmed\_lake



Correlation within: Tilapia\_wild\_lake



Correlation within: Perch\_wild\_lake

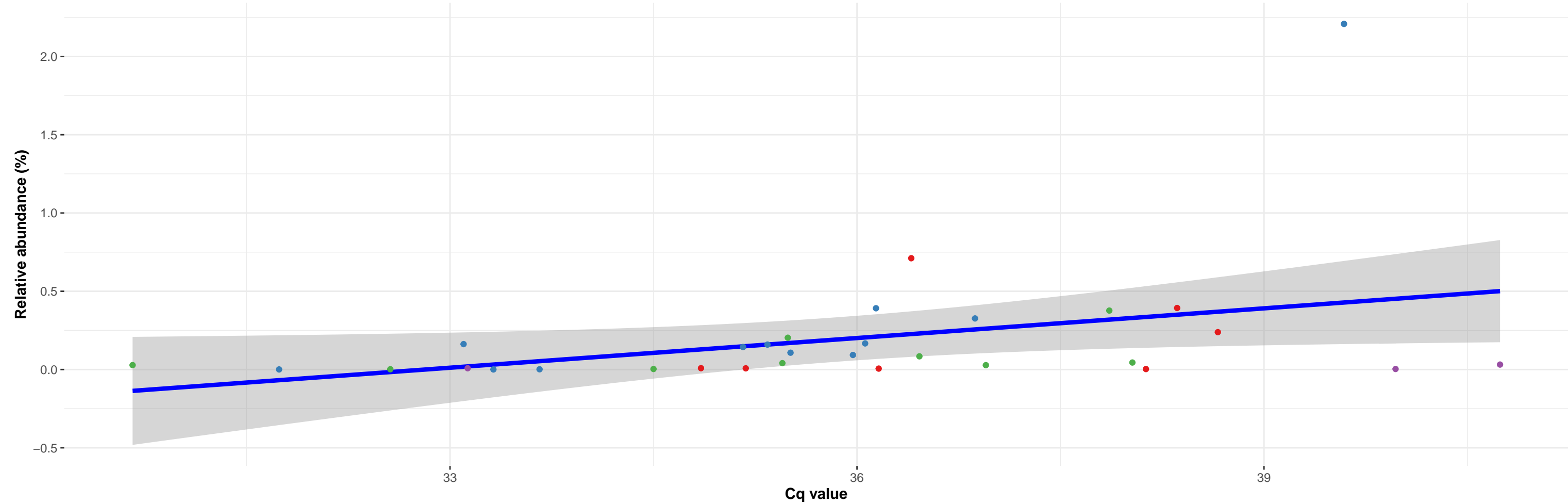


k\_\_Bacteria; p\_\_Verrucomicrobia; c\_\_Verrucomicrobiae; o\_\_Chthoniobacterales; f\_\_Chthoniobacteraceae; g\_\_LD29; Ambiguous\_taxa

featureID: 550884702aea7eaa9461b76e8ef9da16

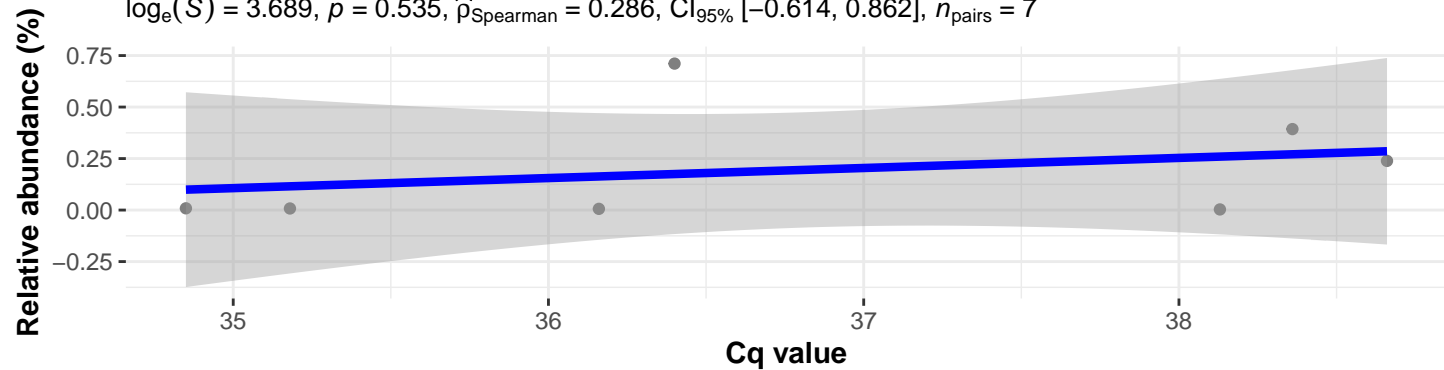
Correlation with all samples

$\log_e(S) = 7.911$ ,  $p = 0.011$ ,  $\hat{\rho}_{\text{Spearman}} = 0.450$ ,  $\text{CI}_{95\%} [0.103, 0.699]$ ,  $n_{\text{pairs}} = 31$



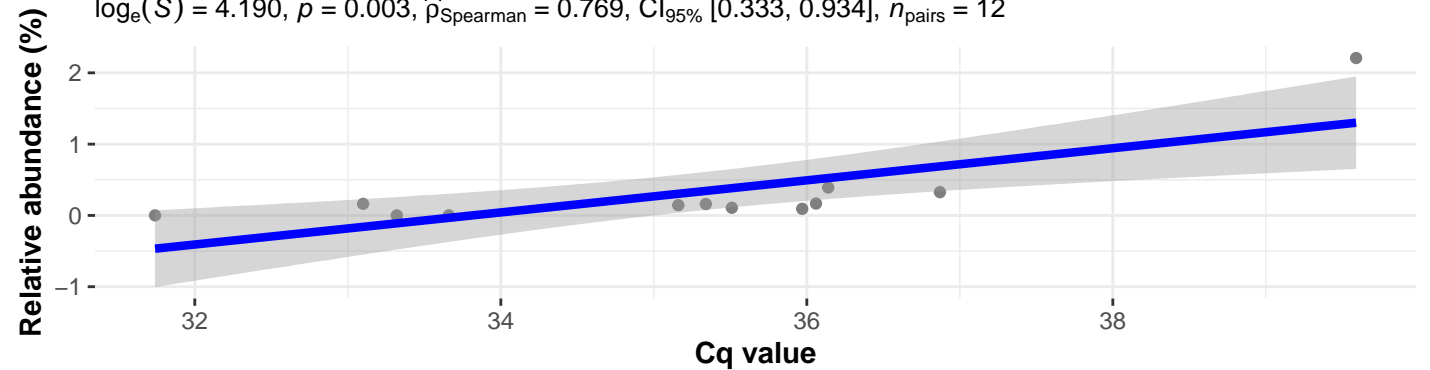
Correlation within: Tilapia\_farmed\_pond

$\log_e(S) = 3.689$ ,  $p = 0.535$ ,  $\hat{\rho}_{\text{Spearman}} = 0.286$ ,  $\text{CI}_{95\%} [-0.614, 0.862]$ ,  $n_{\text{pairs}} = 7$



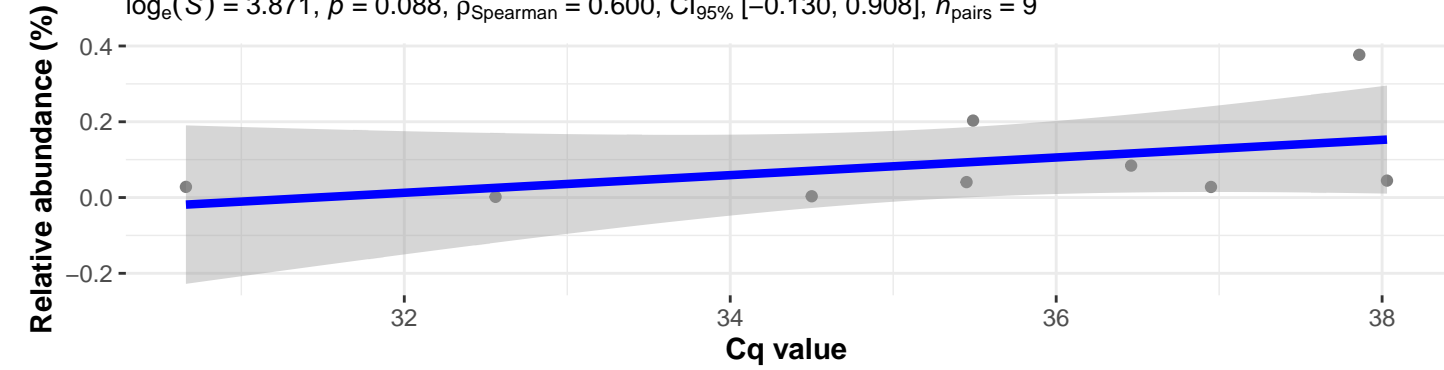
Correlation within: Tilapia\_farmed\_lake

$\log_e(S) = 4.190$ ,  $p = 0.003$ ,  $\hat{\rho}_{\text{Spearman}} = 0.769$ ,  $\text{CI}_{95\%} [0.333, 0.934]$ ,  $n_{\text{pairs}} = 12$

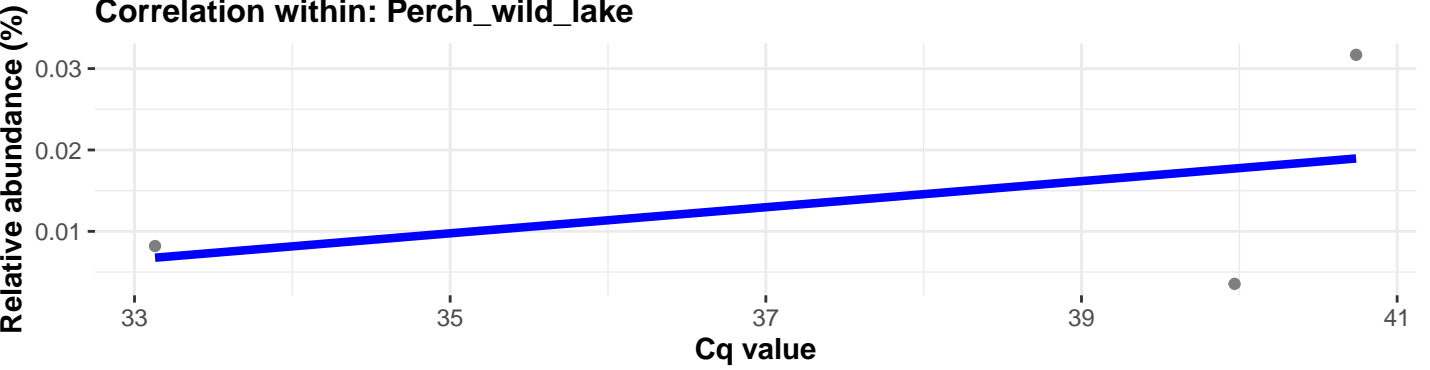


Correlation within: Tilapia\_wild\_lake

$\log_e(S) = 3.871$ ,  $p = 0.088$ ,  $\hat{\rho}_{\text{Spearman}} = 0.600$ ,  $\text{CI}_{95\%} [-0.130, 0.908]$ ,  $n_{\text{pairs}} = 9$

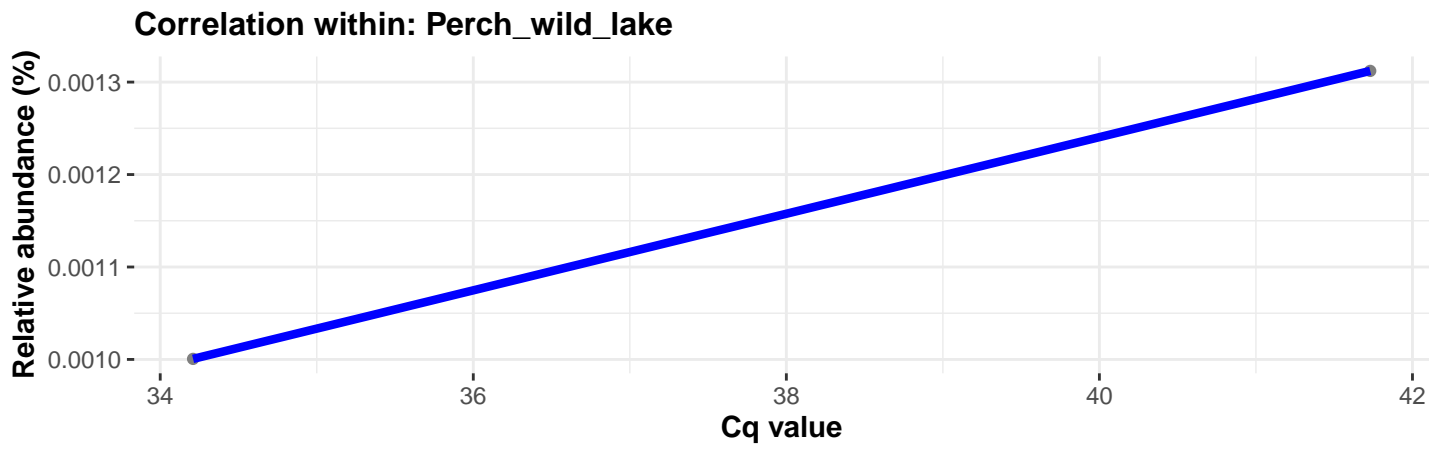
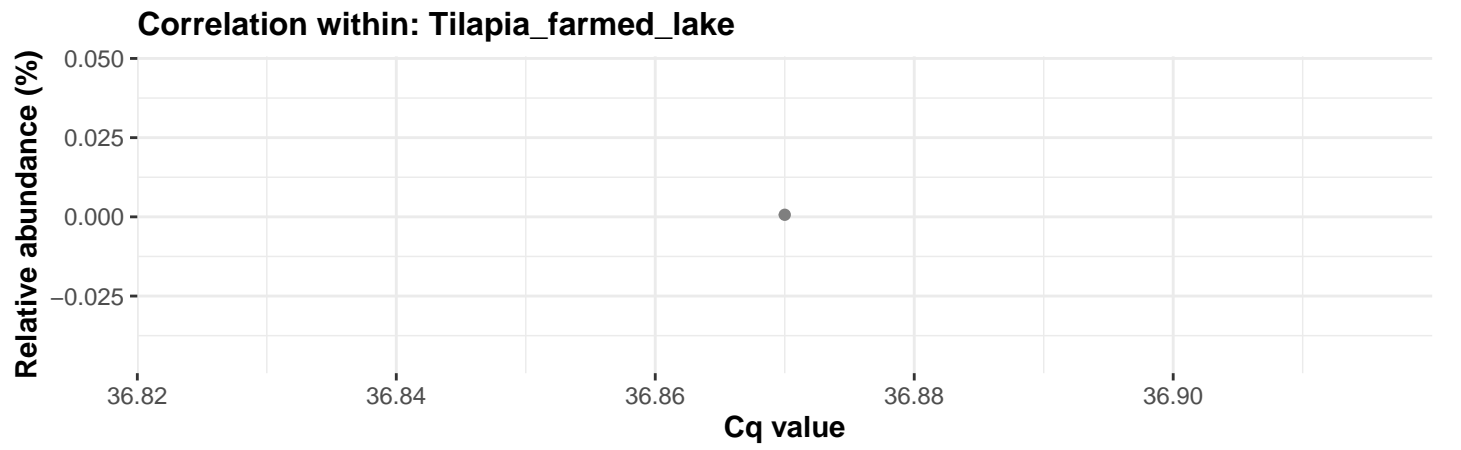
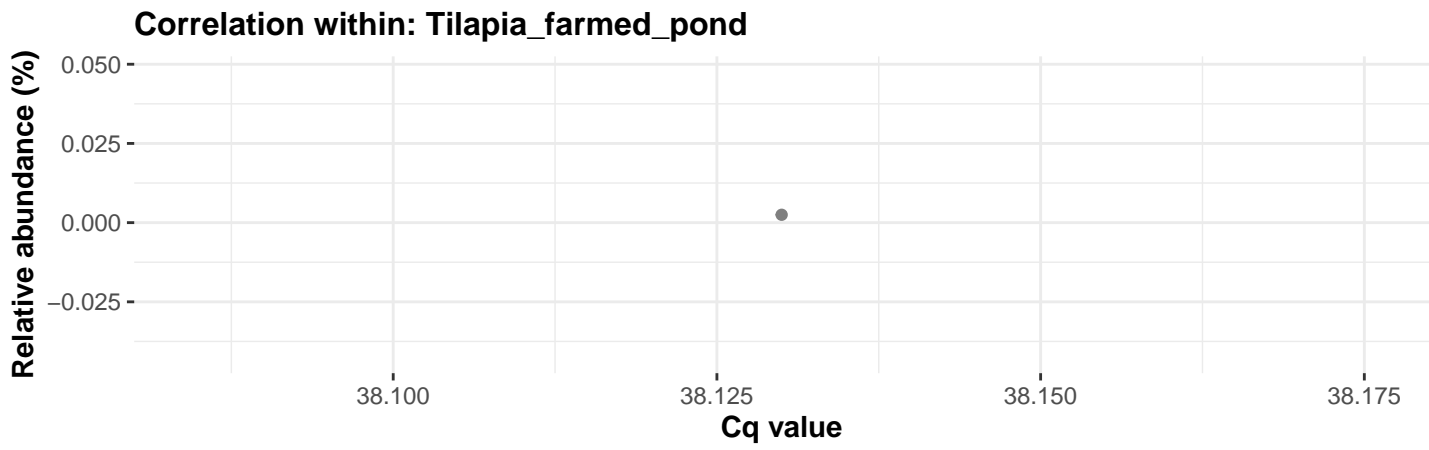
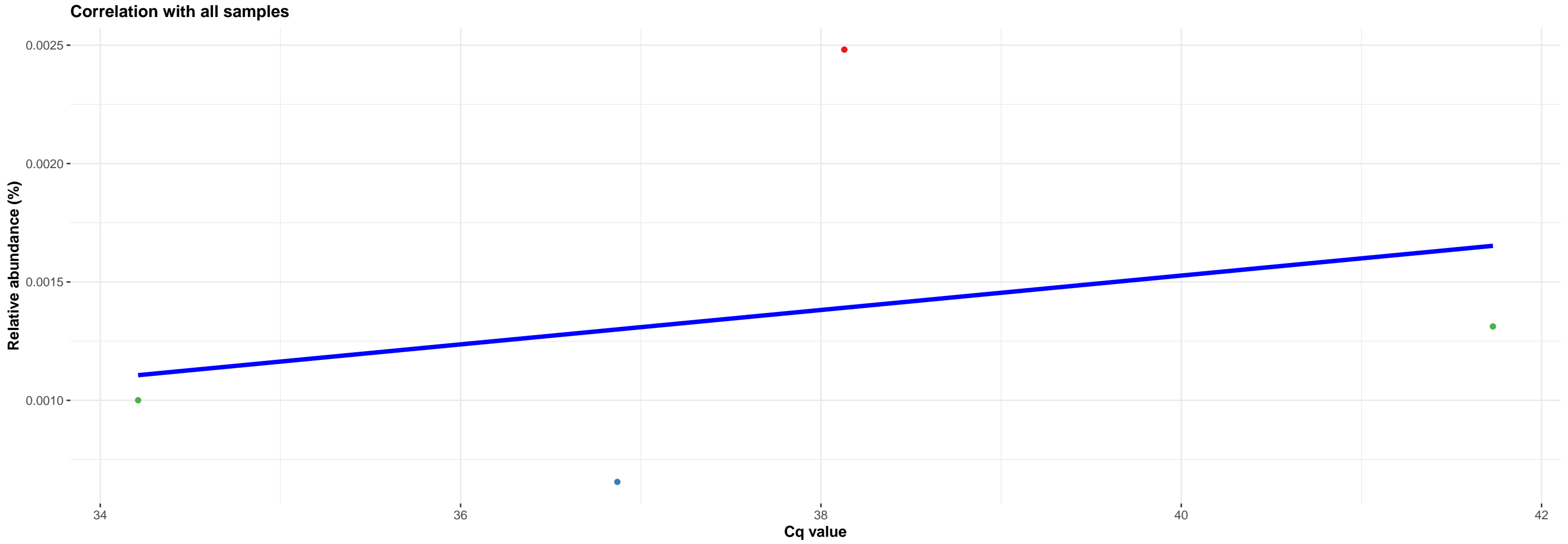


Correlation within: Perch\_wild\_lake



k\_\_Bacteria; p\_\_Firmicutes; c\_\_Bacilli; o\_\_Bacillales; f\_\_Staphylococcaceae; g\_\_Staphylococcus; NA

featureID: 43a54829cc0d7a58a61ad7f833cc2b22

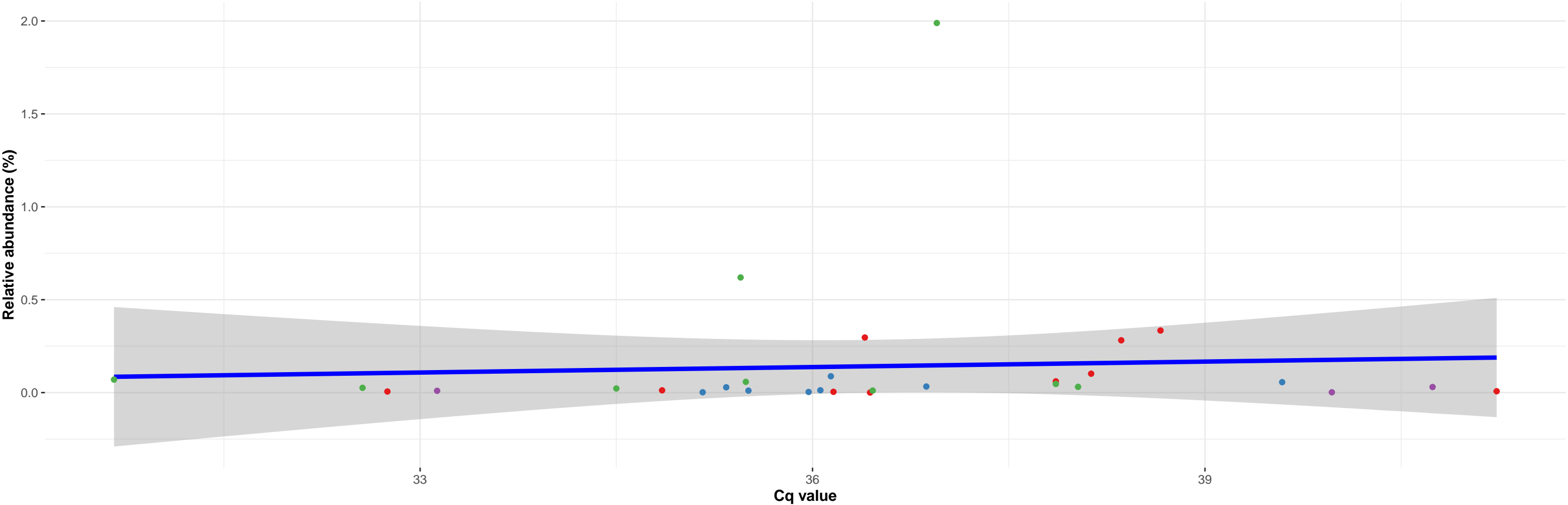


k\_\_Bacteria; p\_\_Proteobacteria; c\_\_Alphaproteobacteria; o\_\_Rhizobiales; f\_\_Beijerinckiaceae; g\_\_Methylocystis; NA

featureID: 675f287d70a622c1c4cd8e1b634e8aed

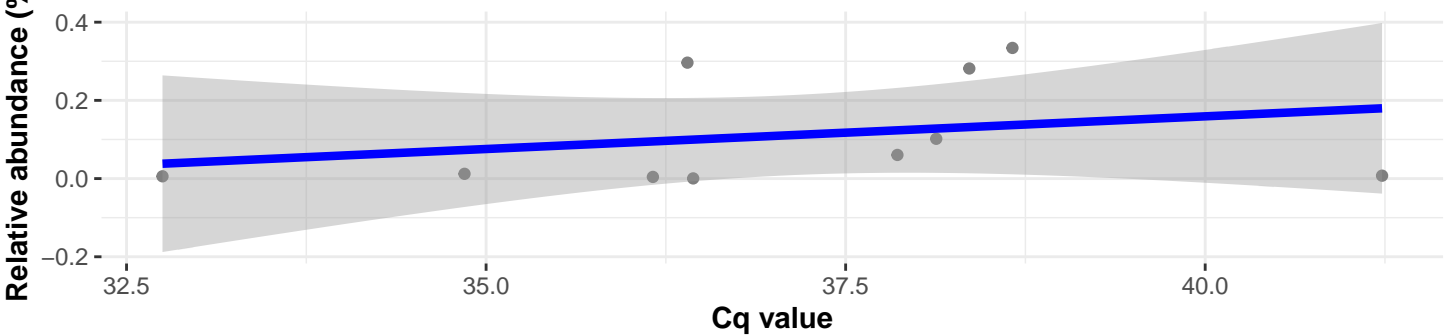
Correlation with all samples

$\log_e(S) = 8.192$ ,  $p = 0.298$ ,  $\hat{\rho}_{\text{Spearman}} = 0.197$ ,  $\text{CI}_{95\%} [-0.187, 0.528]$ ,  $n_{\text{pairs}} = 30$



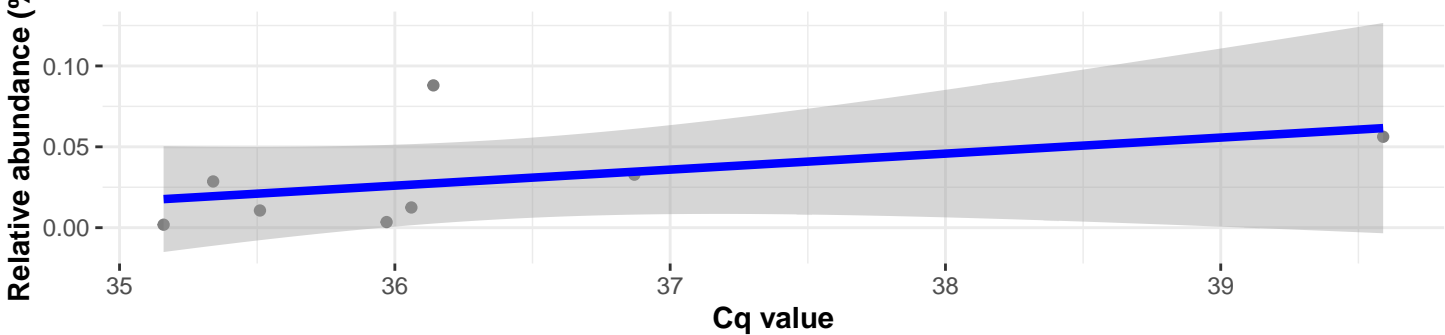
Correlation within: Tilapia\_farmed\_pond

$\log_e(S) = 4.522$ ,  $p = 0.200$ ,  $\hat{\rho}_{\text{Spearman}} = 0.442$ ,  $\text{CI}_{95\%} [-0.280, 0.845]$ ,  $n_{\text{pairs}} = 10$



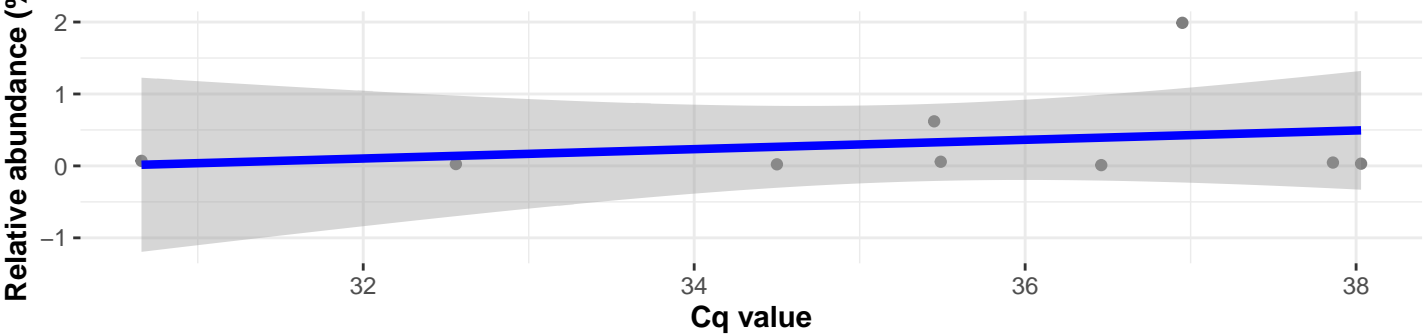
Correlation within: Tilapia\_farmed\_lake

$\log_e(S) = 2.996$ ,  $p = 0.028$ ,  $\hat{\rho}_{\text{Spearman}} = 0.762$ ,  $\text{CI}_{95\%} [0.098, 0.957]$ ,  $n_{\text{pairs}} = 8$

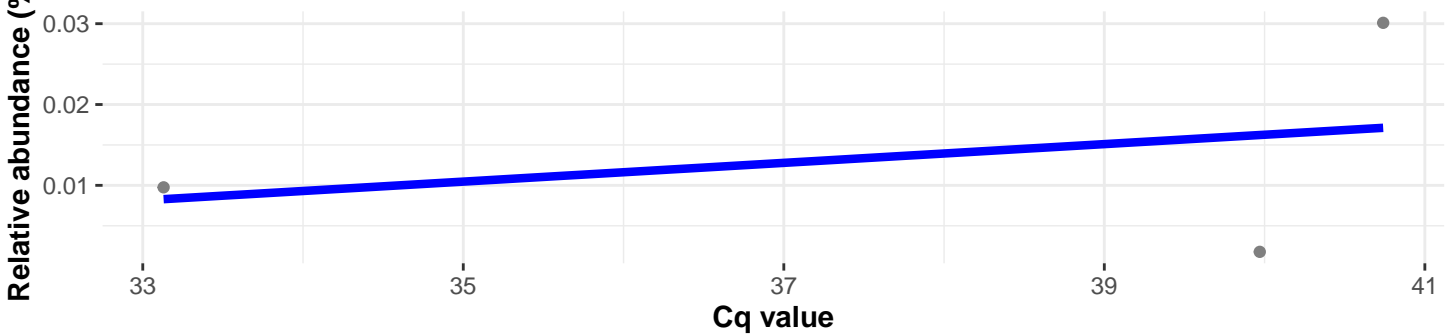


Correlation within: Tilapia\_wild\_lake

$\log_e(S) = 4.771$ ,  $p = 0.966$ ,  $\hat{\rho}_{\text{Spearman}} = 0.017$ ,  $\text{CI}_{95\%} [-0.668, 0.686]$ ,  $n_{\text{pairs}} = 9$



Correlation within: Perch\_wild\_lake



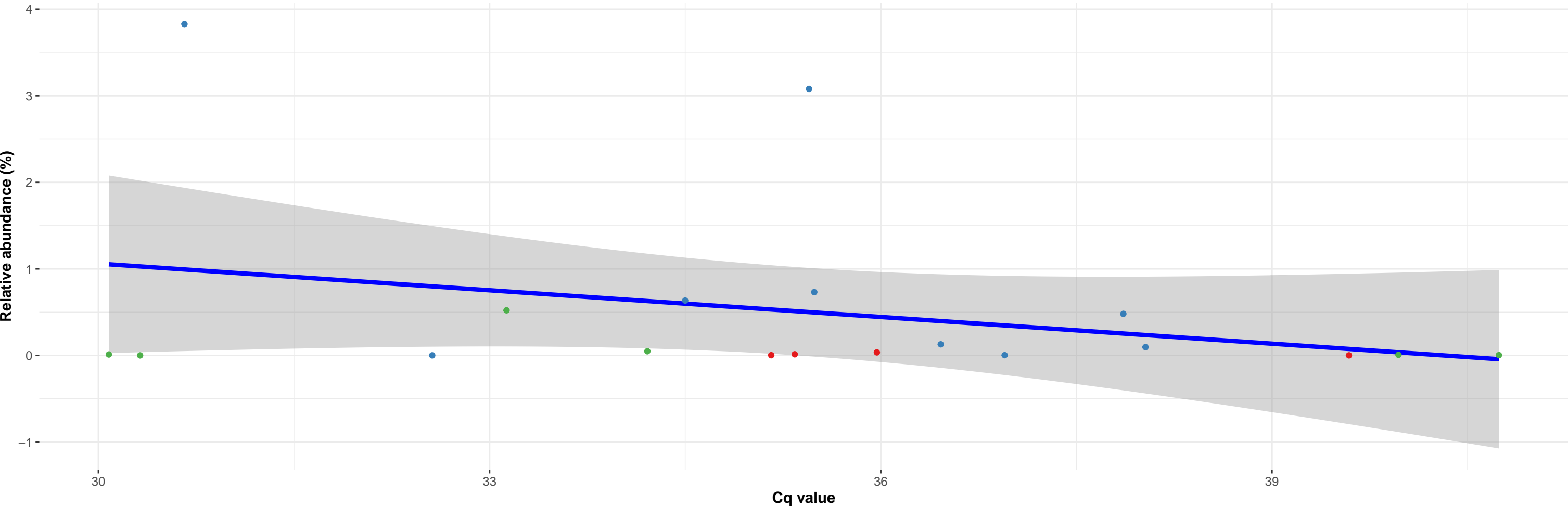


k\_\_Bacteria; p\_\_Proteobacteria; c\_\_Gammaproteobacteria; o\_\_Aeromonadales; f\_\_Aeromonadaceae; g\_\_Aeromonas; NA

featureID: f4ddba285154bdd47f4dc510c2038305

Correlation with all samples

$\log_e(S) = 7.107$ ,  $p = 0.775$ ,  $\hat{\rho}_{\text{Spearman}} = -0.070$ ,  $\text{CI}_{95\%} [-0.519, 0.409]$ ,  $n_{\text{pairs}} = 19$



Correlation within: Tilapia\_farmed\_pond

Relative abundance (%)

Cq value

Correlation within: Tilapia\_farmed\_lake

Relative abundance (%)

Cq value

Correlation within: Tilapia\_wild\_lake

Relative abundance (%)

Cq value

Correlation within: Perch\_wild\_lake

Relative abundance (%)

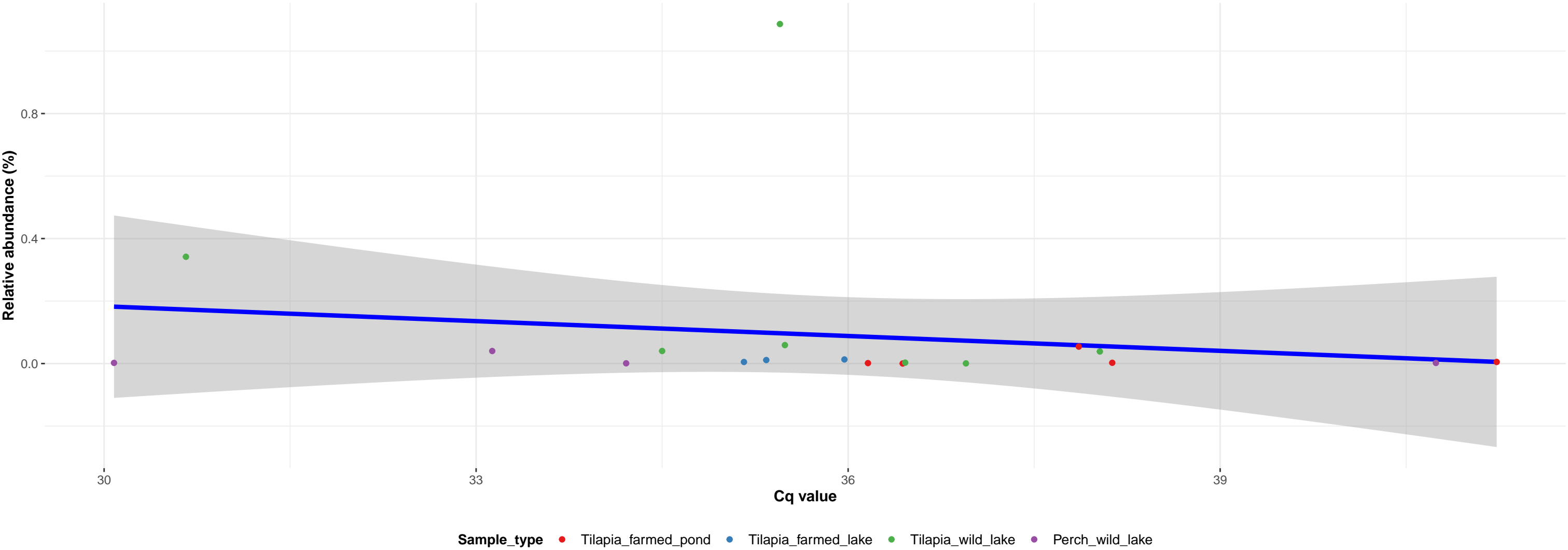
Cq value

k\_\_Bacteria; p\_\_Proteobacteria; c\_\_Gammaproteobacteria; o\_\_Aeromonadales; f\_\_Aeromonadaceae; g\_\_Aeromonas; NA

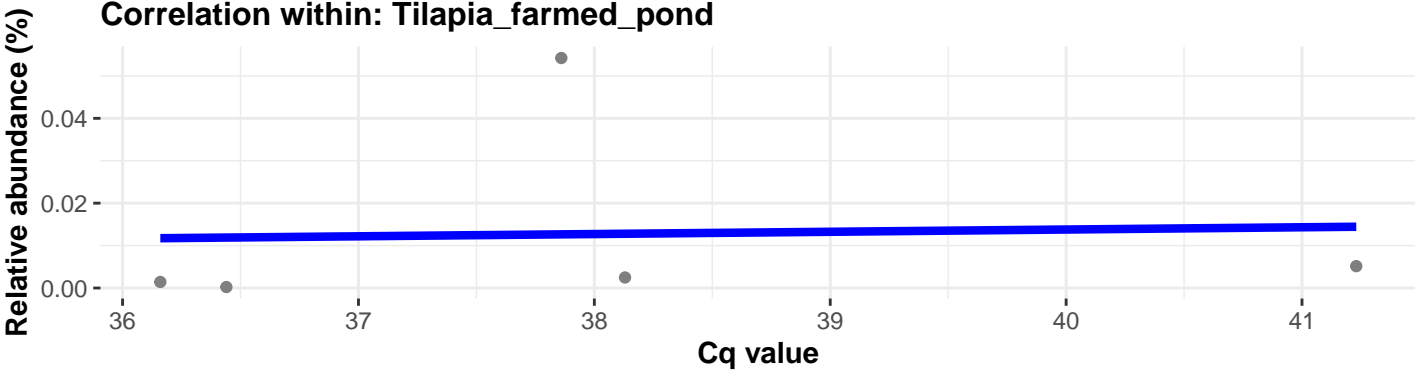
featureID: 2e119ce67894fe00027176e52f17a225

Correlation with all samples

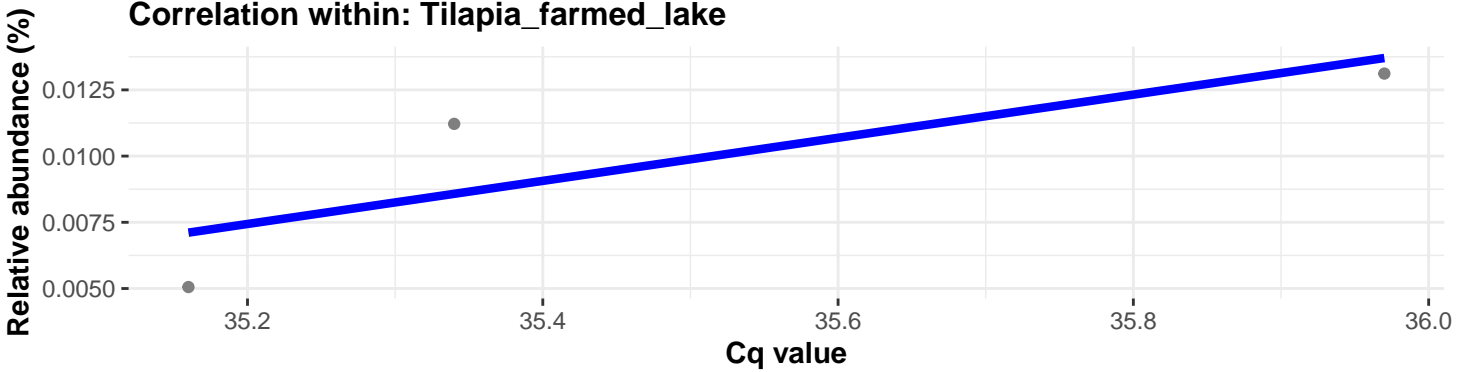
$\log_e(S) = 7.256$ ,  $p = 0.318$ ,  $\hat{\rho}_{\text{Spearman}} = -0.242$ ,  $CI_{95\%} [-0.636, 0.252]$ ,  $n_{\text{pairs}} = 19$



Correlation within: Tilapia\_farmed\_pond

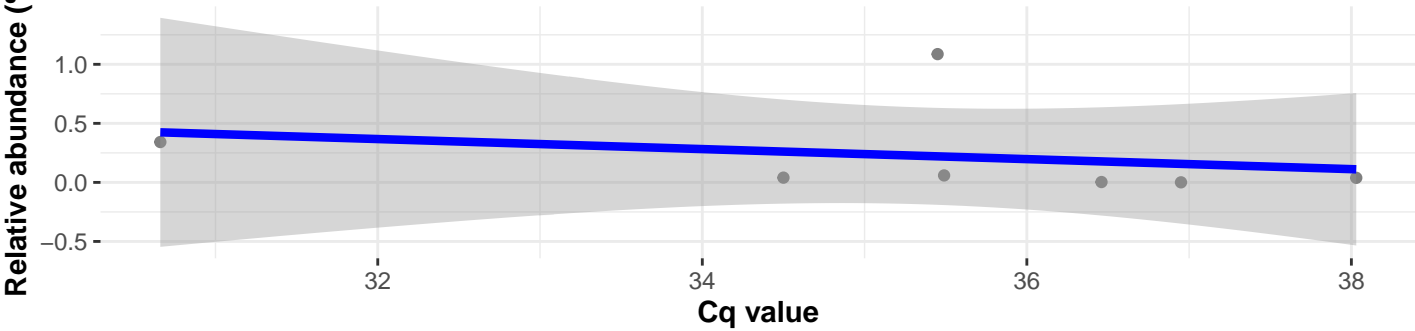


Correlation within: Tilapia\_farmed\_lake



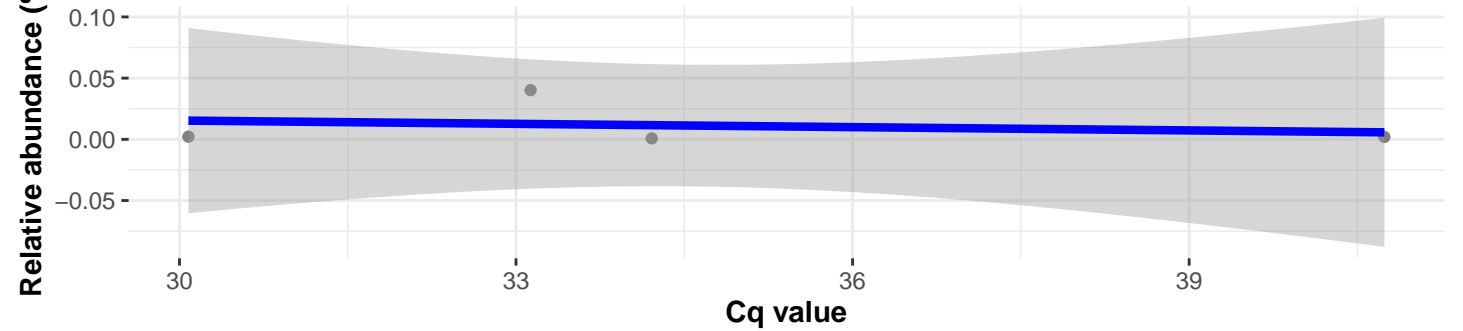
Correlation within: Tilapia\_wild\_lake

$\log_e(S) = 4.564$ ,  $p = 0.071$ ,  $\hat{\rho}_{\text{Spearman}} = -0.714$ ,  $CI_{95\%} [-0.957, 0.113]$ ,  $n_{\text{pairs}} = 7$



Correlation within: Perch\_wild\_lake

$\log_e(S) = 2.773$ ,  $p = 0.400$ ,  $\hat{\rho}_{\text{Spearman}} = -0.600$ ,  $CI_{95\%} [-0.991, 0.868]$ ,  $n_{\text{pairs}} = 4$

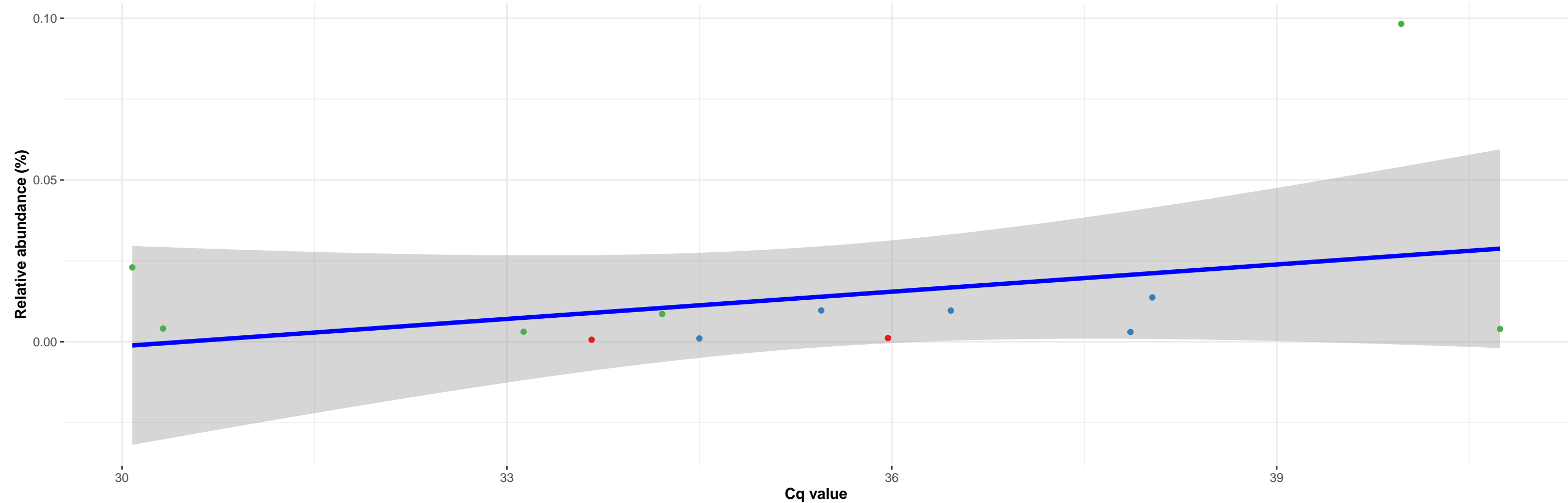


k\_\_Bacteria; p\_\_Proteobacteria; c\_\_Gammaproteobacteria; o\_\_Enterobacteriales; f\_\_Enterobacteriaceae; g\_\_Plesiomonas; NA

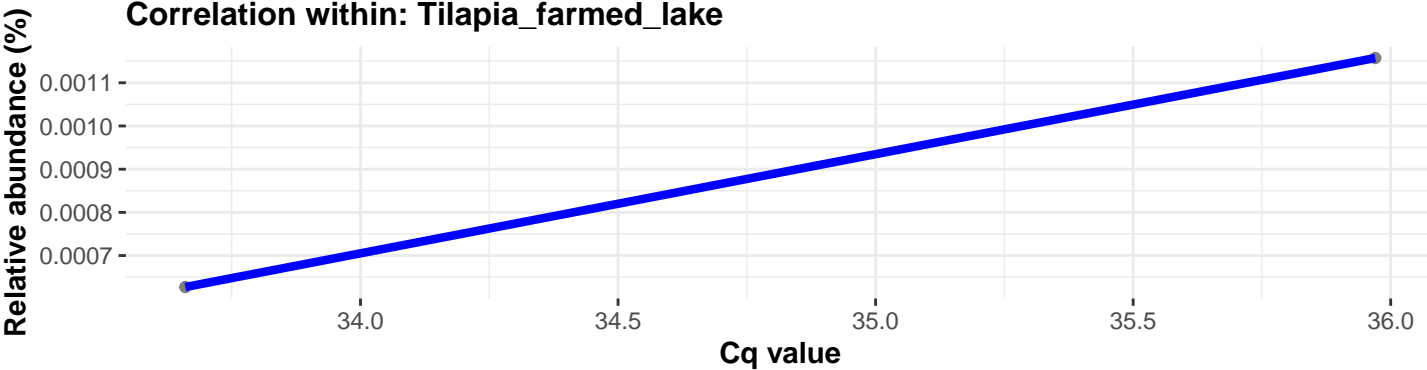
featureID: 8cc0e176d680aac1a413121d8633c30d

Correlation with all samples

$\log_e(S) = 5.717$ ,  $p = 0.590$ ,  $\hat{\rho}_{\text{Spearman}} = 0.165$ ,  $CI_{95\%} [-0.440, 0.667]$ ,  $n_{\text{pairs}} = 13$

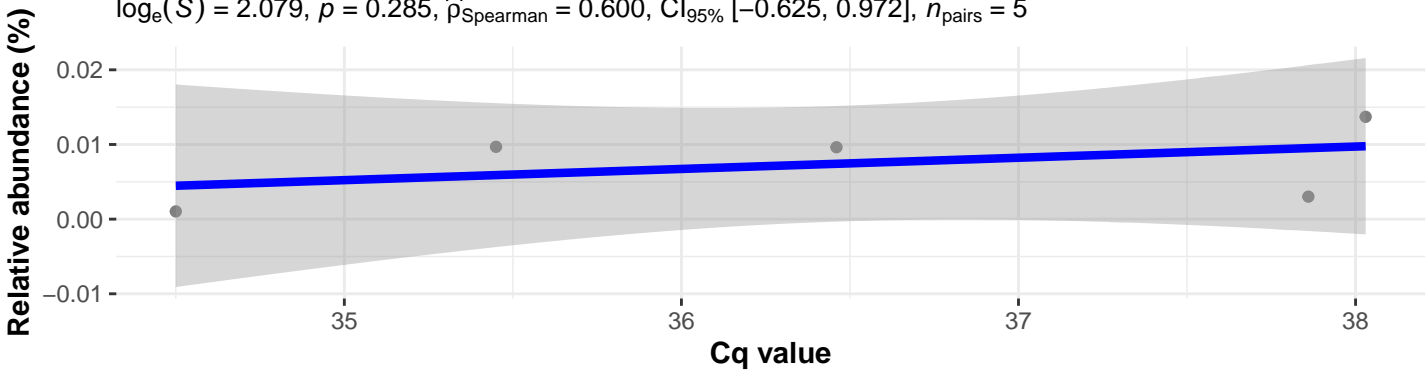


Correlation within: Tilapia\_farmed\_lake



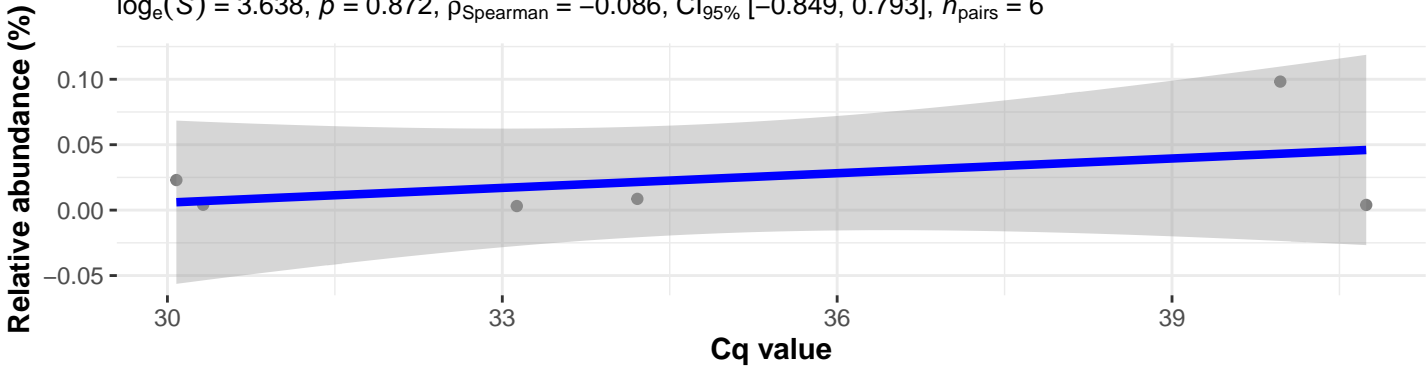
Correlation within: Tilapia\_wild\_lake

$\log_e(S) = 2.079$ ,  $p = 0.285$ ,  $\hat{\rho}_{\text{Spearman}} = 0.600$ ,  $CI_{95\%} [-0.625, 0.972]$ ,  $n_{\text{pairs}} = 5$



Correlation within: Perch\_wild\_lake

$\log_e(S) = 3.638$ ,  $p = 0.872$ ,  $\hat{\rho}_{\text{Spearman}} = -0.086$ ,  $CI_{95\%} [-0.849, 0.793]$ ,  $n_{\text{pairs}} = 6$

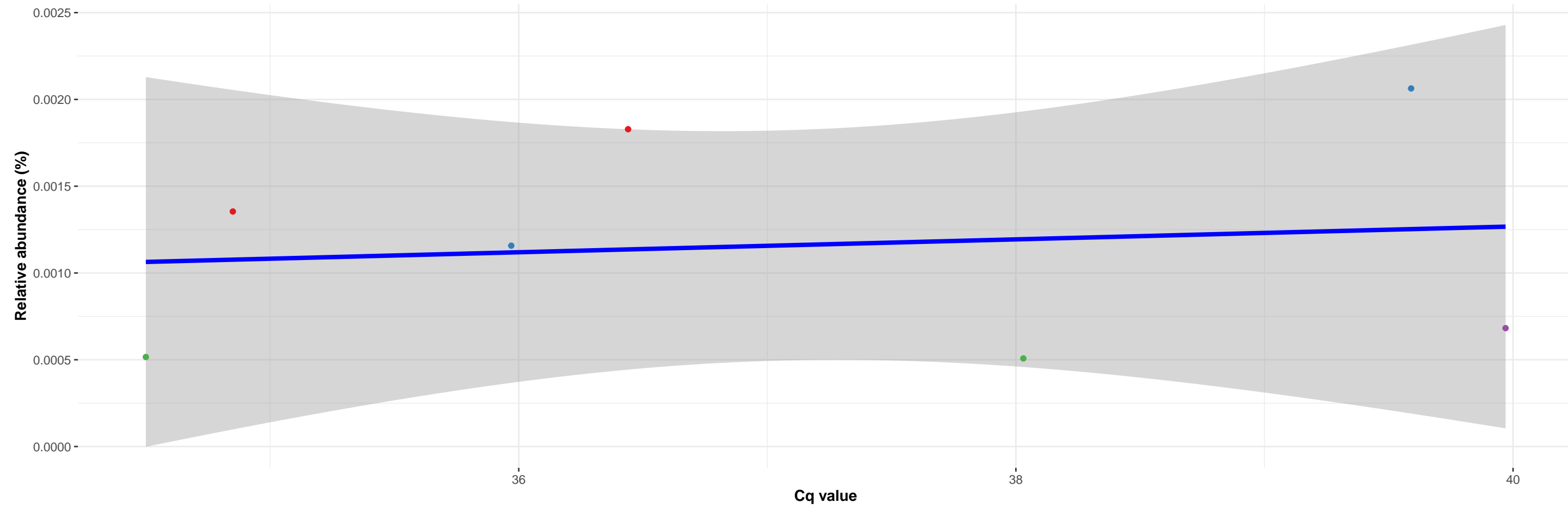


k\_\_Bacteria; p\_\_Actinobacteria; c\_\_Actinobacteria; o\_\_Micrococcales; f\_\_Micrococcaceae; g\_\_Micrococcus; NA

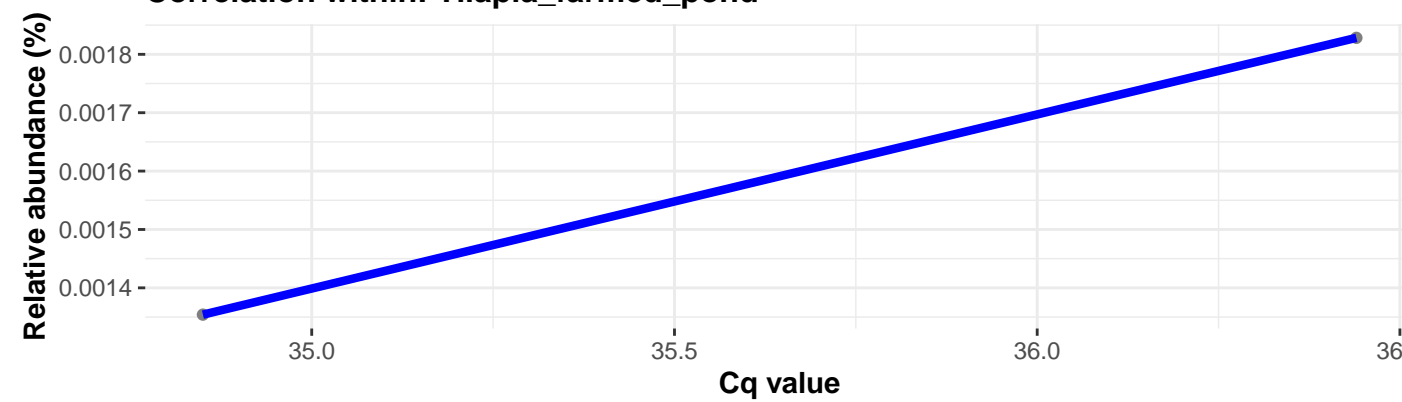
featureID: 09403870435de24e0d1079059a287957

### Correlation with all samples

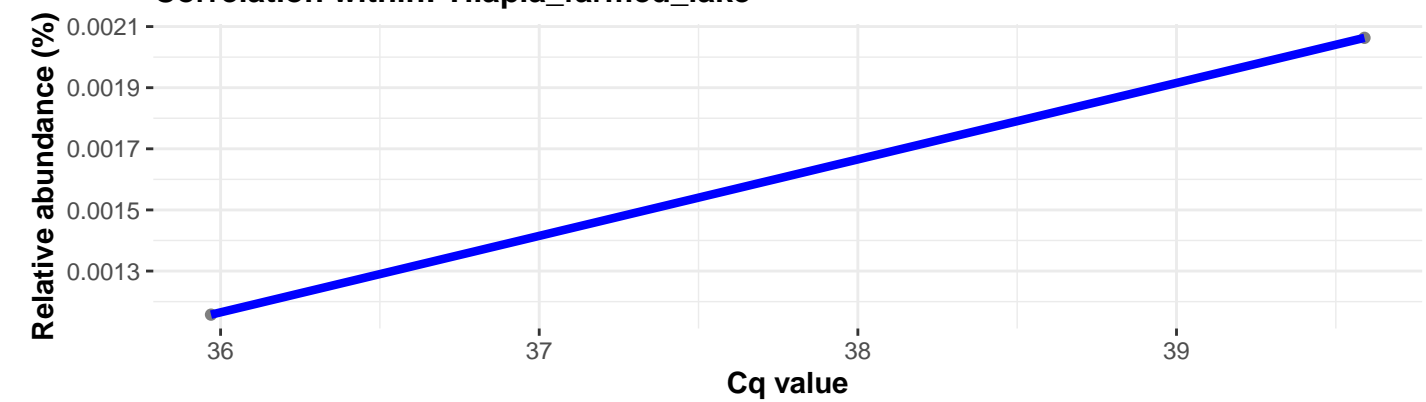
$\log_e(S) = 3.871$ ,  $p = 0.760$ ,  $\hat{\rho}_{\text{Spearman}} = 0.143$ ,  $CI_{95\%} [-0.699, 0.819]$ ,  $n_{\text{pairs}} = 7$



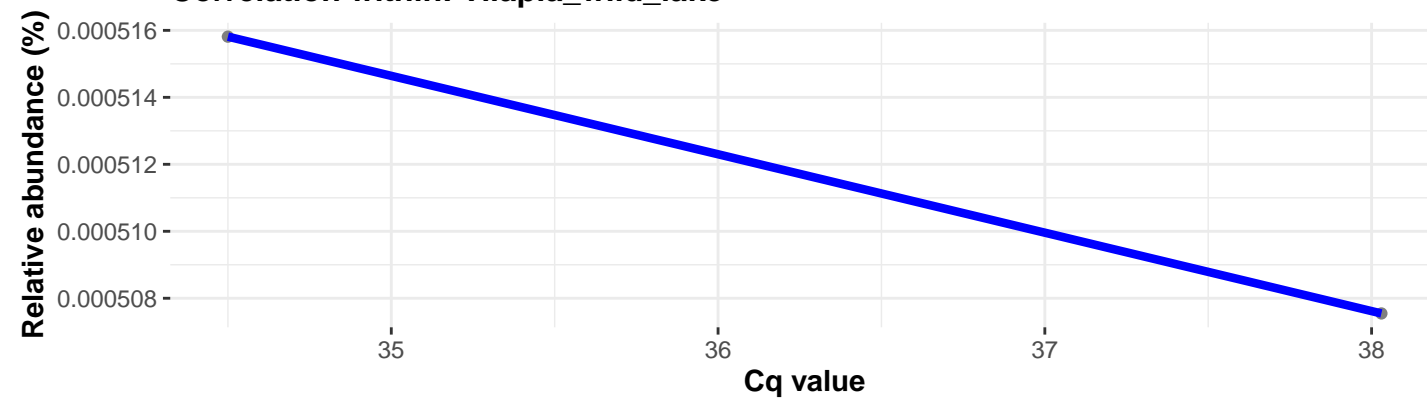
### Correlation within: Tilapia\_farmed\_pond



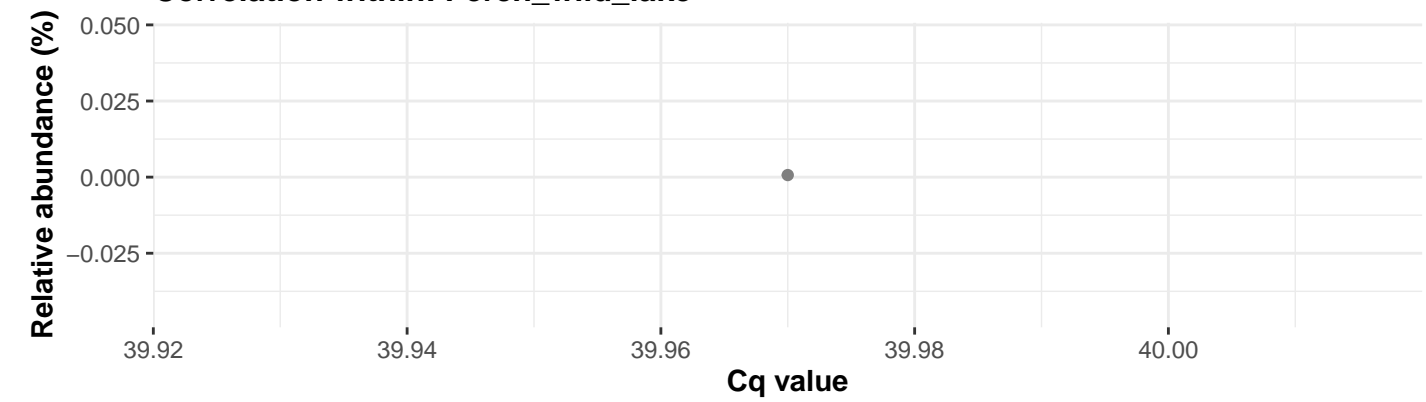
### Correlation within: Tilapia\_farmed\_lake



### Correlation within: Tilapia\_wild\_lake



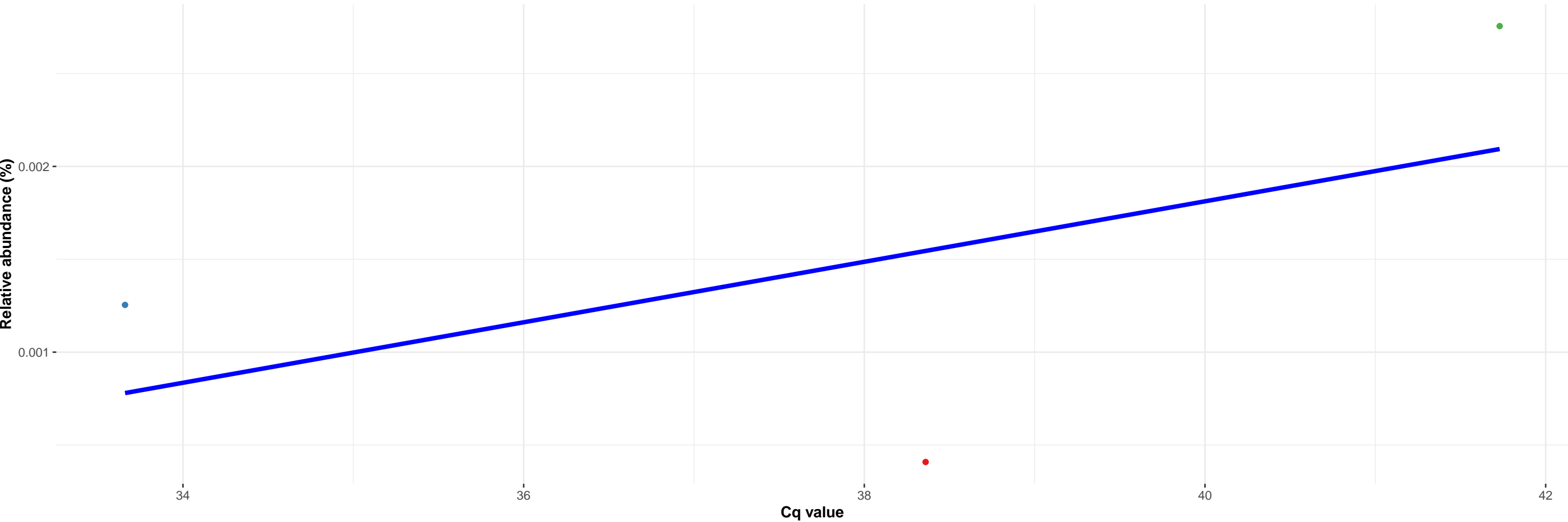
### Correlation within: Perch\_wild\_lake



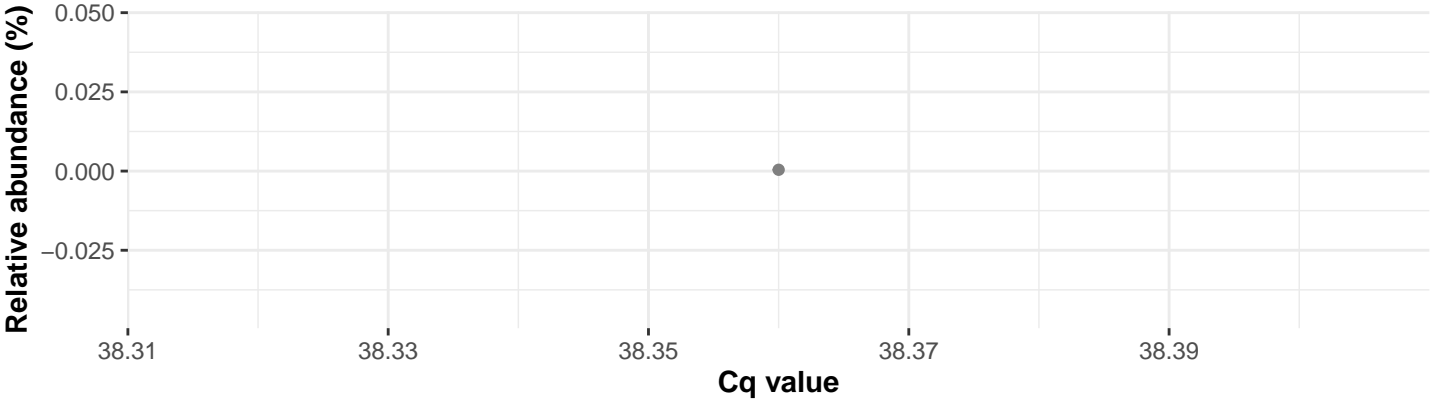
k\_\_Bacteria; p\_\_Proteobacteria; c\_\_Gammaproteobacteria; o\_\_Betaproteobacteriales; f\_\_Burkholderiaceae; g\_\_Ralstonia; NA

featureID: 07c3160551922faa7be5740ea3adc189

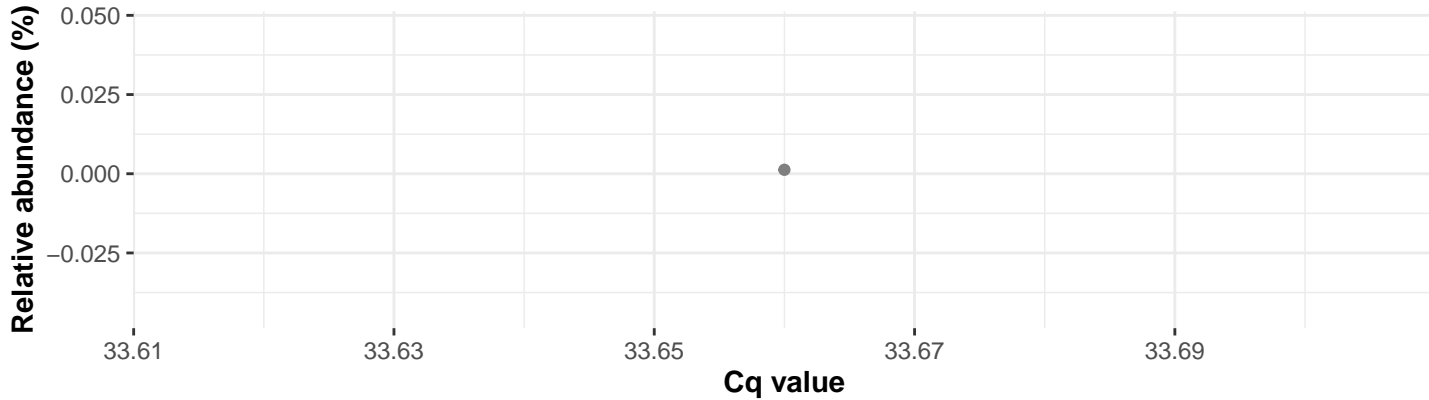
Correlation with all samples



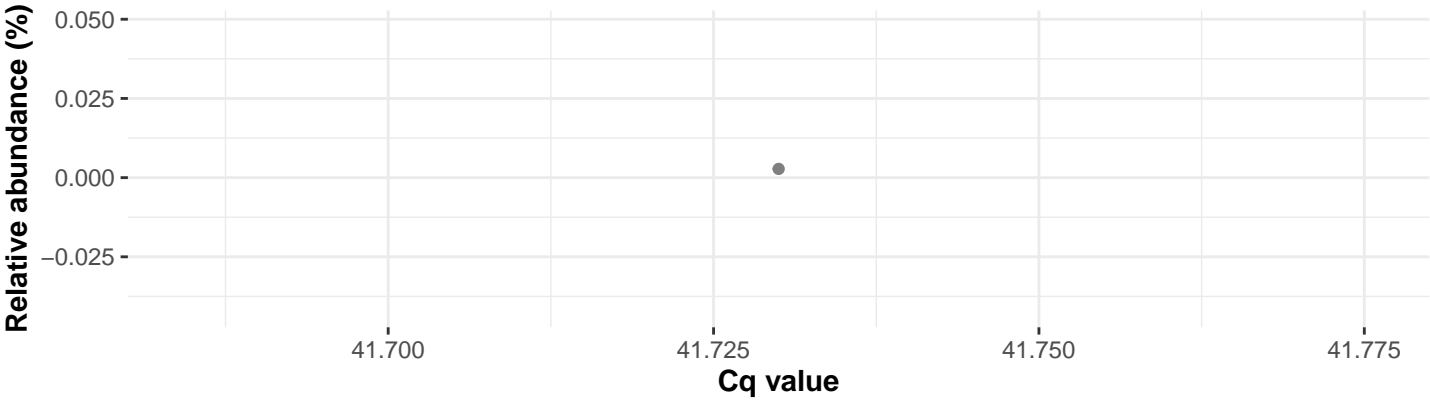
Correlation within: Tilapia\_farmed\_pond



Correlation within: Tilapia\_farmed\_lake



Correlation within: Perch\_wild\_lake

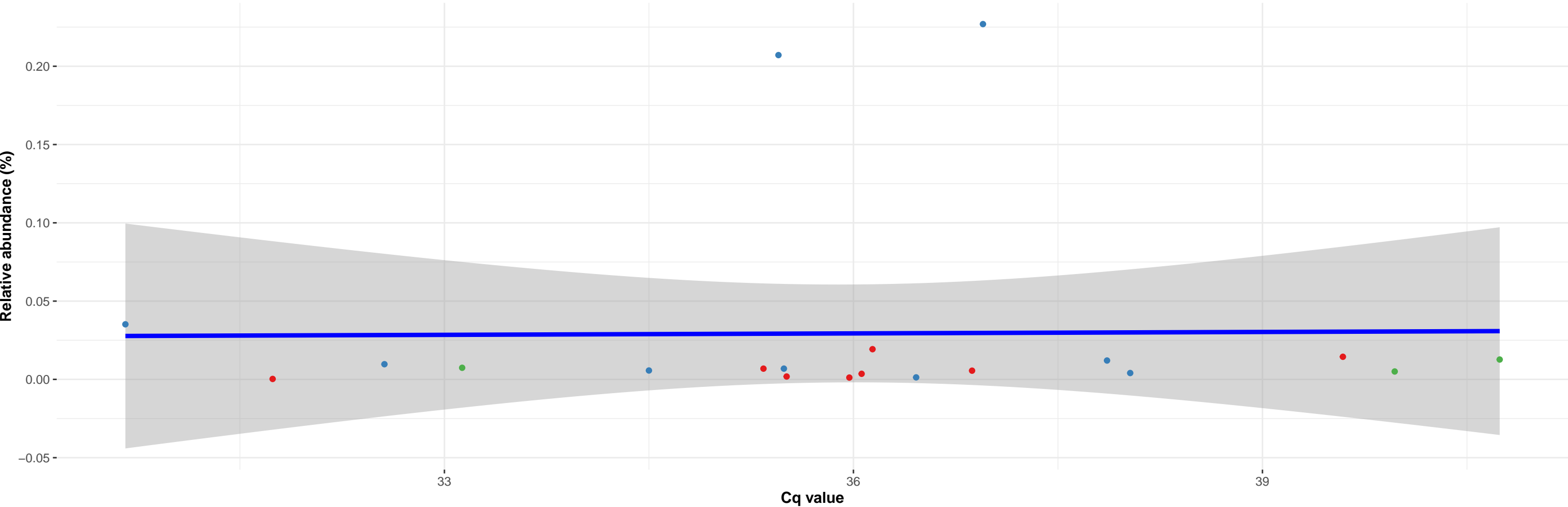


k\_\_Bacteria; p\_\_Proteobacteria; c\_\_Gammaproteobacteria; o\_\_Methylococcales; f\_\_Methylococcaceae; g\_\_Methylocaldum; s\_\_uncultured bacterium

featureID: 572e092b99869f99a6ae2c111893fbc5

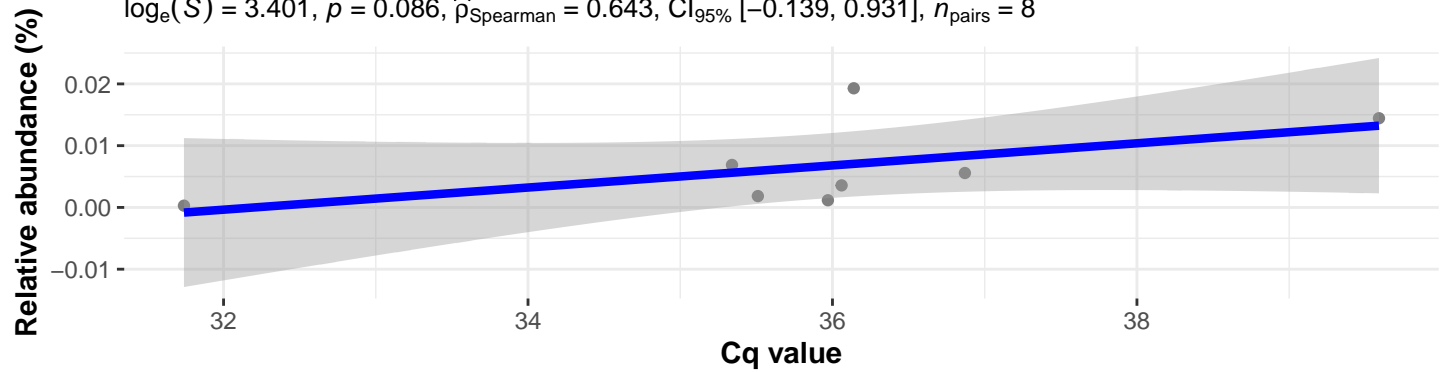
Correlation with all samples

$\log_e(S) = 7.129$ ,  $p = 0.796$ ,  $\hat{\rho}_{\text{Spearman}} = 0.062$ ,  $CI_{95\%} [-0.403, 0.501]$ ,  $n_{\text{pairs}} = 20$



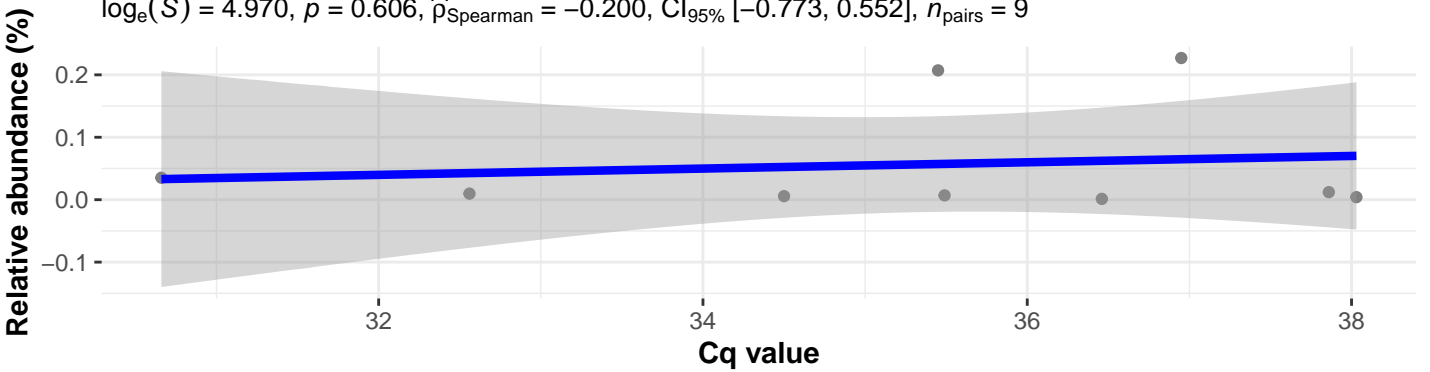
Correlation within: Tilapia\_farmed\_lake

$\log_e(S) = 3.401$ ,  $p = 0.086$ ,  $\hat{\rho}_{\text{Spearman}} = 0.643$ ,  $CI_{95\%} [-0.139, 0.931]$ ,  $n_{\text{pairs}} = 8$

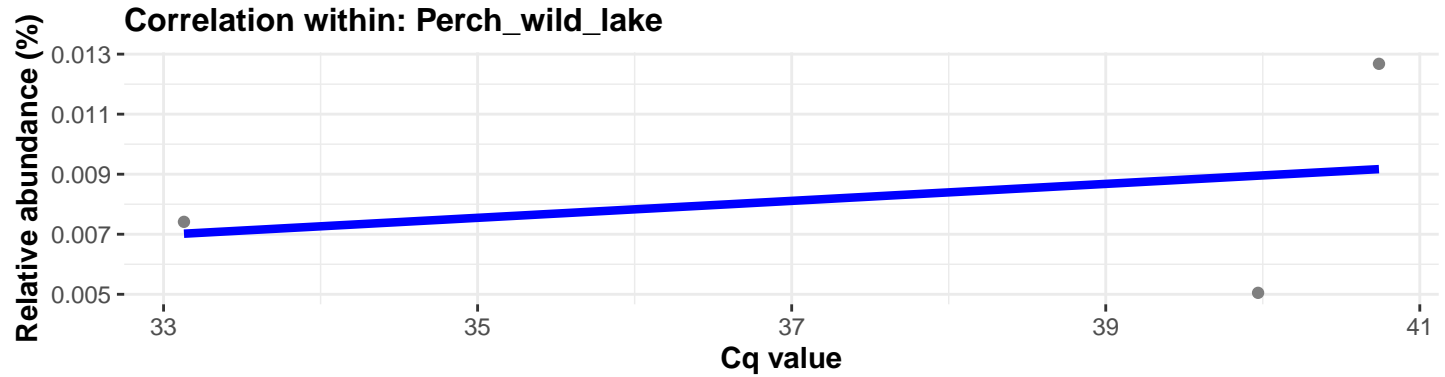


Correlation within: Tilapia\_wild\_lake

$\log_e(S) = 4.970$ ,  $p = 0.606$ ,  $\hat{\rho}_{\text{Spearman}} = -0.200$ ,  $CI_{95\%} [-0.773, 0.552]$ ,  $n_{\text{pairs}} = 9$



Correlation within: Perch\_wild\_lake

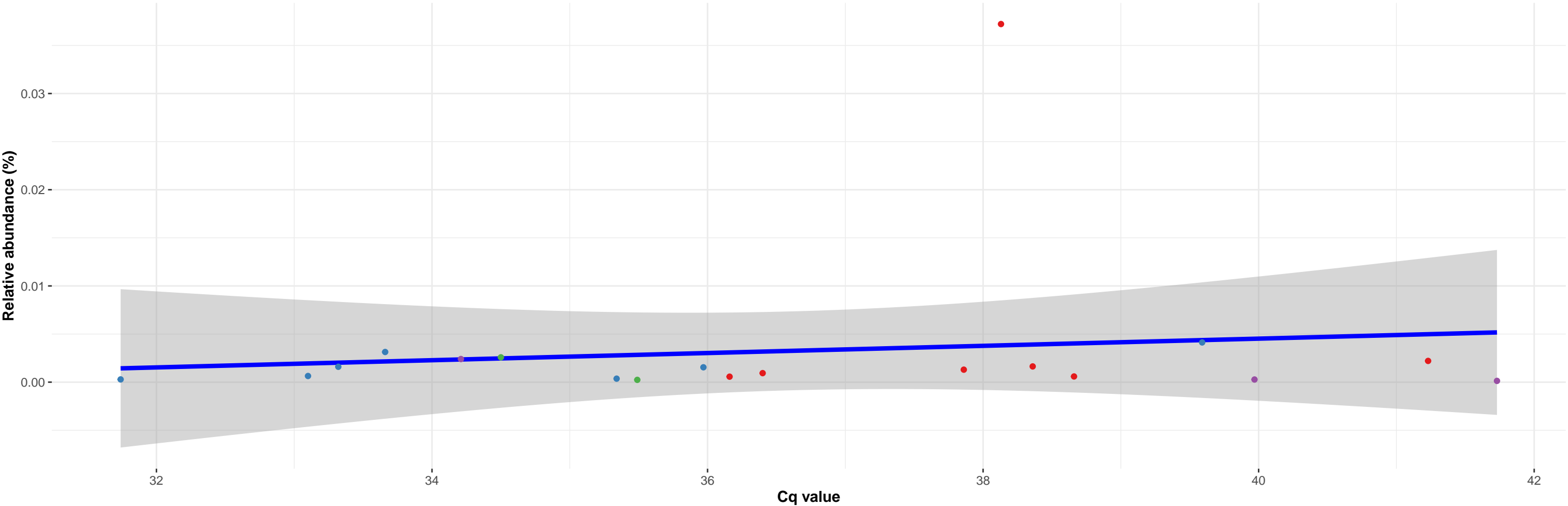


k\_\_Bacteria; p\_\_Actinobacteria; c\_\_Actinobacteria; o\_\_Propionibacteriales; f\_\_Propionibacteriaceae; g\_\_Cutibacterium; NA

featureID: b02a8d33d018119dedb2db15db887bfd

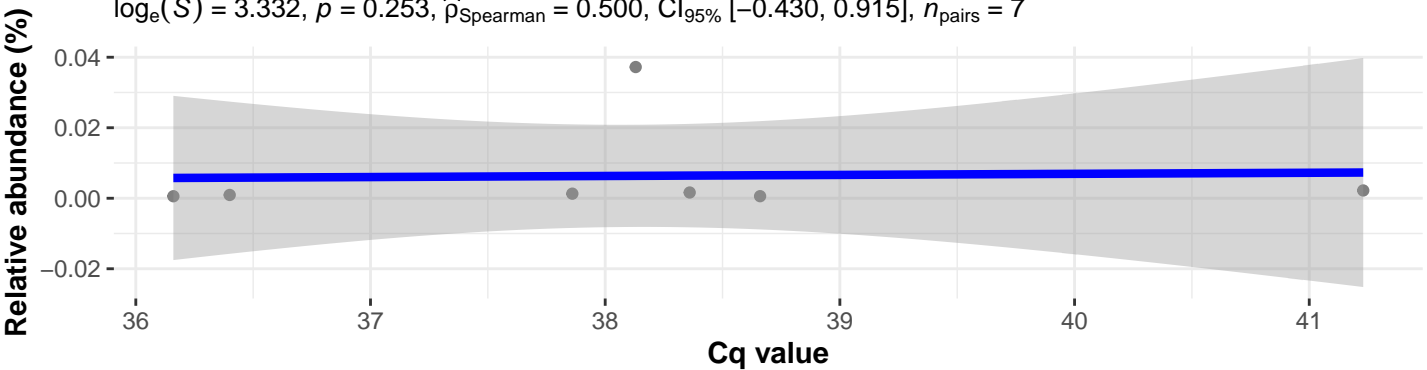
Correlation with all samples

$\log_e(S) = 7.093$ ,  $p = 0.819$ ,  $\hat{\rho}_{\text{Spearman}} = -0.056$ ,  $CI_{95\%} [-0.508, 0.420]$ ,  $n_{\text{pairs}} = 19$



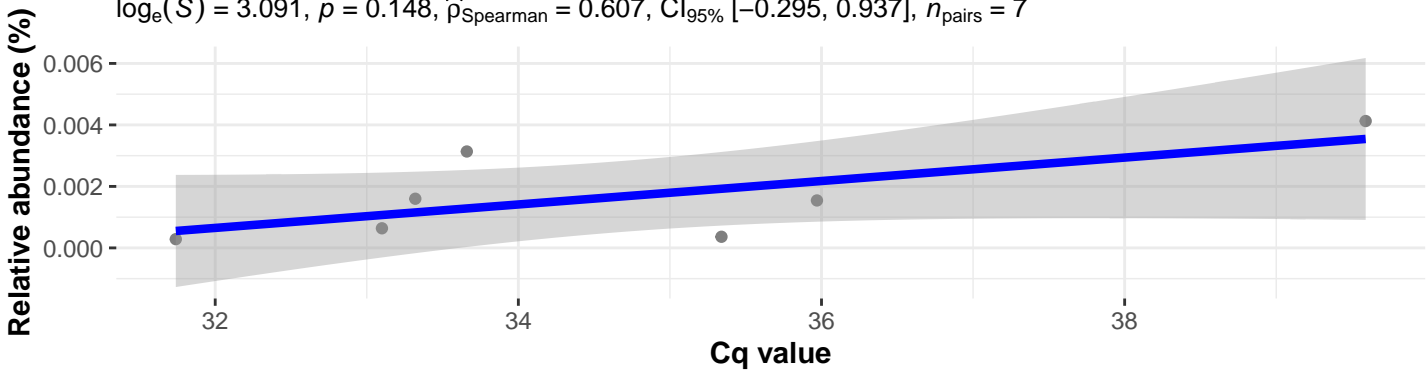
Correlation within: Tilapia\_farmed\_pond

$\log_e(S) = 3.332$ ,  $p = 0.253$ ,  $\hat{\rho}_{\text{Spearman}} = 0.500$ ,  $CI_{95\%} [-0.430, 0.915]$ ,  $n_{\text{pairs}} = 7$

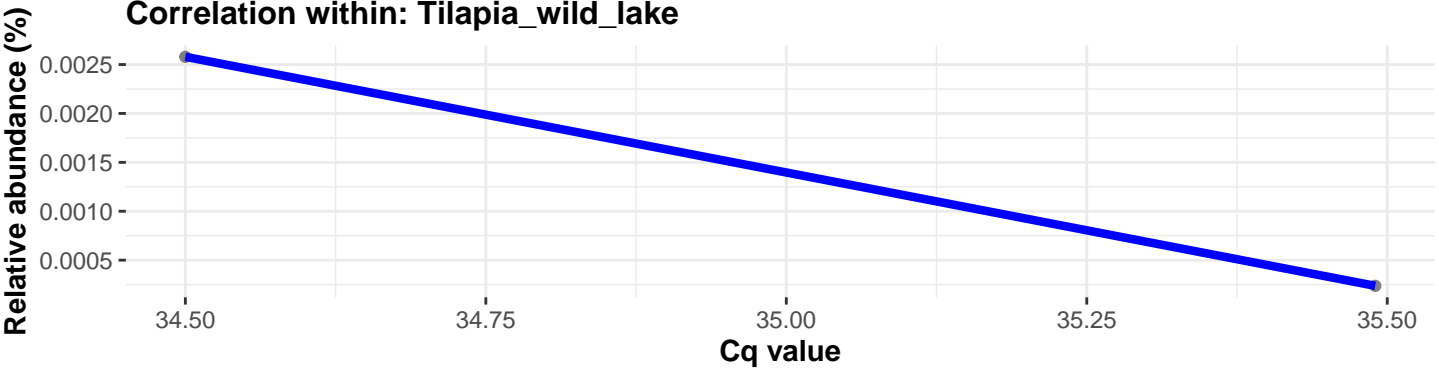


Correlation within: Tilapia\_farmed\_lake

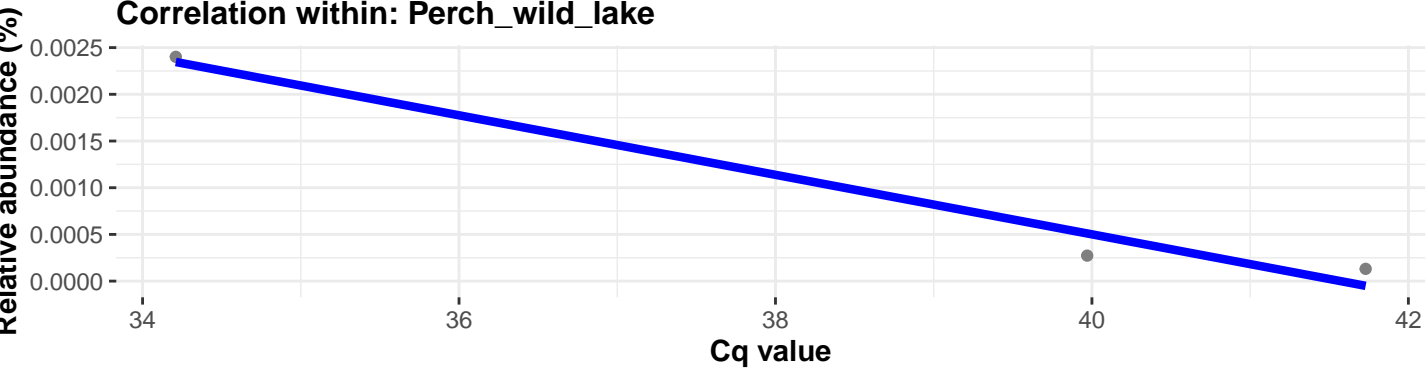
$\log_e(S) = 3.091$ ,  $p = 0.148$ ,  $\hat{\rho}_{\text{Spearman}} = 0.607$ ,  $CI_{95\%} [-0.295, 0.937]$ ,  $n_{\text{pairs}} = 7$



Correlation within: Tilapia\_wild\_lake



Correlation within: Perch\_wild\_lake

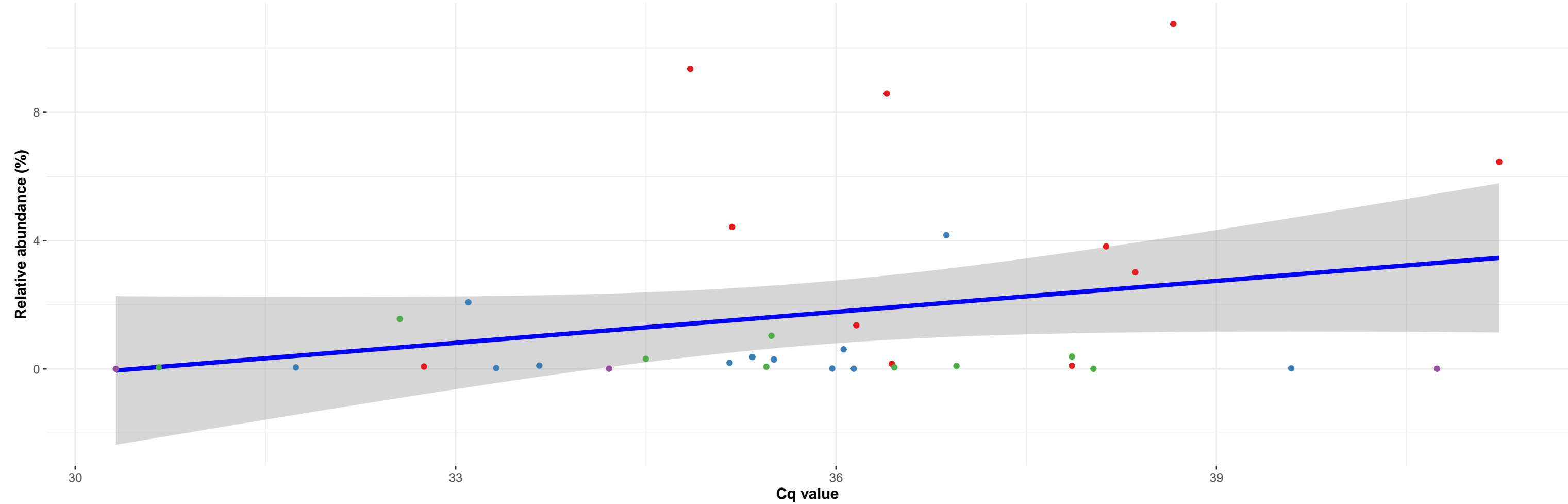


k\_\_Bacteria; p\_\_Fusobacteria; c\_\_Fusobacteriia; o\_\_Fusobacteriales; f\_\_Fusobacteriaceae; g\_\_Cetobacterium; s\_\_uncultured bacterium

featureID: 17d5a49452a6ccbe4473c55b3f818efc

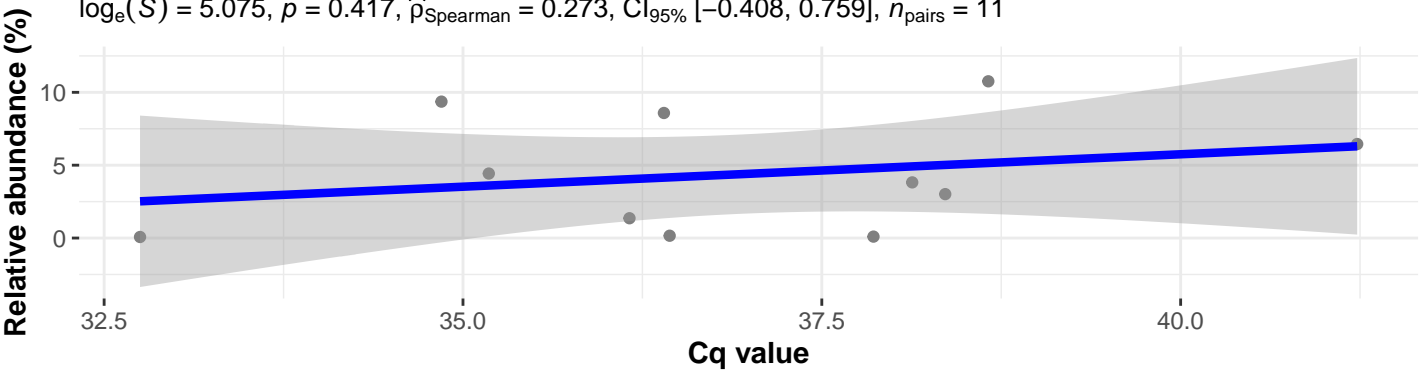
**Correlation with all samples**

$\log_e(S) = 8.664$ ,  $p = 0.278$ ,  $\hat{\rho}_{\text{Spearman}} = 0.189$ ,  $\text{CI}_{95\%} [-0.164, 0.499]$ ,  $n_{\text{pairs}} = 35$



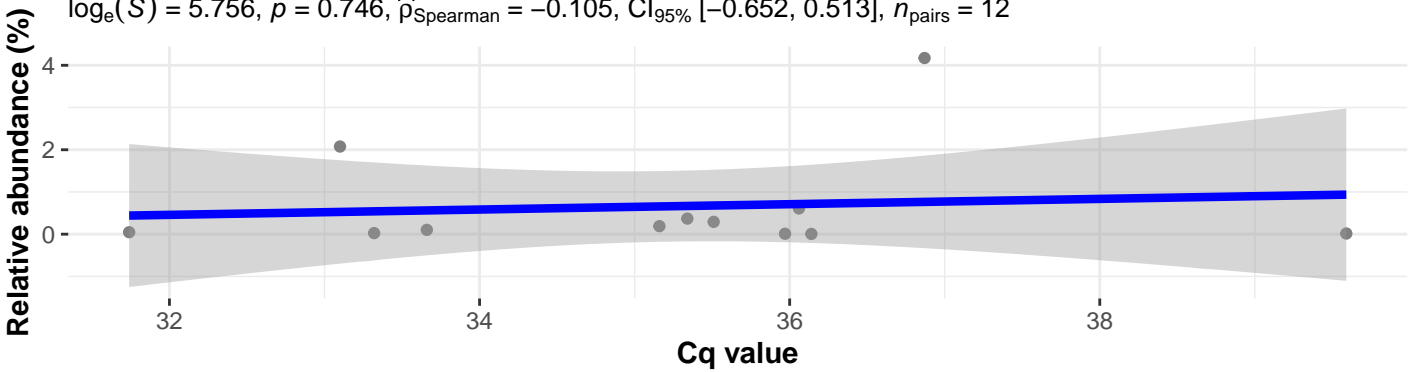
**Correlation within: Tilapia\_farmed\_pond**

$\log_e(S) = 5.075$ ,  $p = 0.417$ ,  $\hat{\rho}_{\text{Spearman}} = 0.273$ ,  $\text{CI}_{95\%} [-0.408, 0.759]$ ,  $n_{\text{pairs}} = 11$



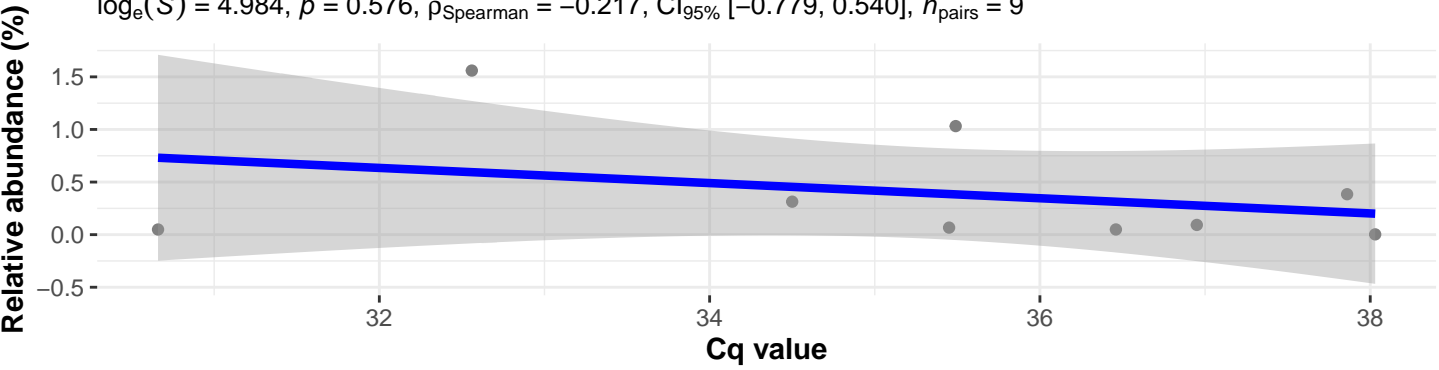
**Correlation within: Tilapia\_farmed\_lake**

$\log_e(S) = 5.756$ ,  $p = 0.746$ ,  $\hat{\rho}_{\text{Spearman}} = -0.105$ ,  $\text{CI}_{95\%} [-0.652, 0.513]$ ,  $n_{\text{pairs}} = 12$

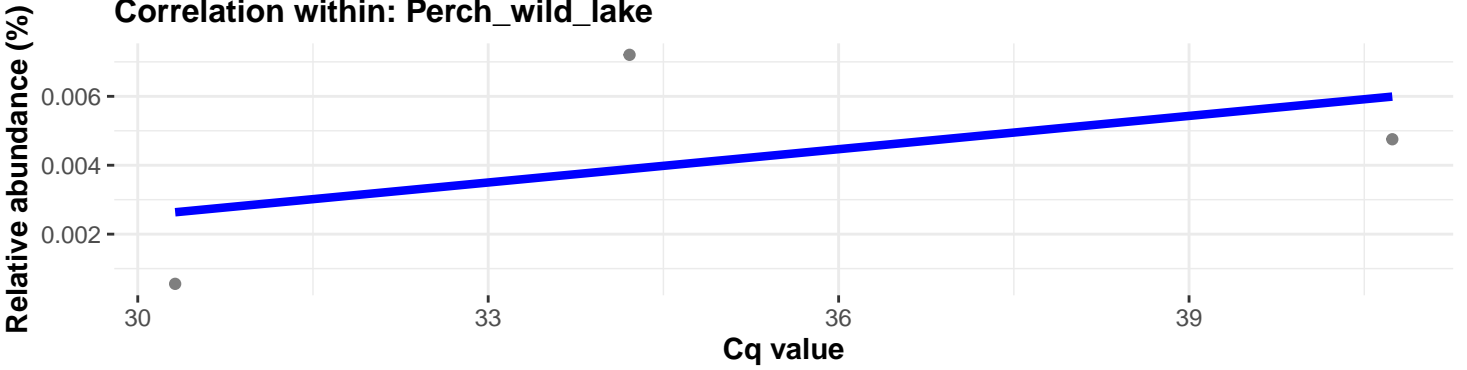


**Correlation within: Tilapia\_wild\_lake**

$\log_e(S) = 4.984$ ,  $p = 0.576$ ,  $\hat{\rho}_{\text{Spearman}} = -0.217$ ,  $\text{CI}_{95\%} [-0.779, 0.540]$ ,  $n_{\text{pairs}} = 9$



**Correlation within: Perch\_wild\_lake**



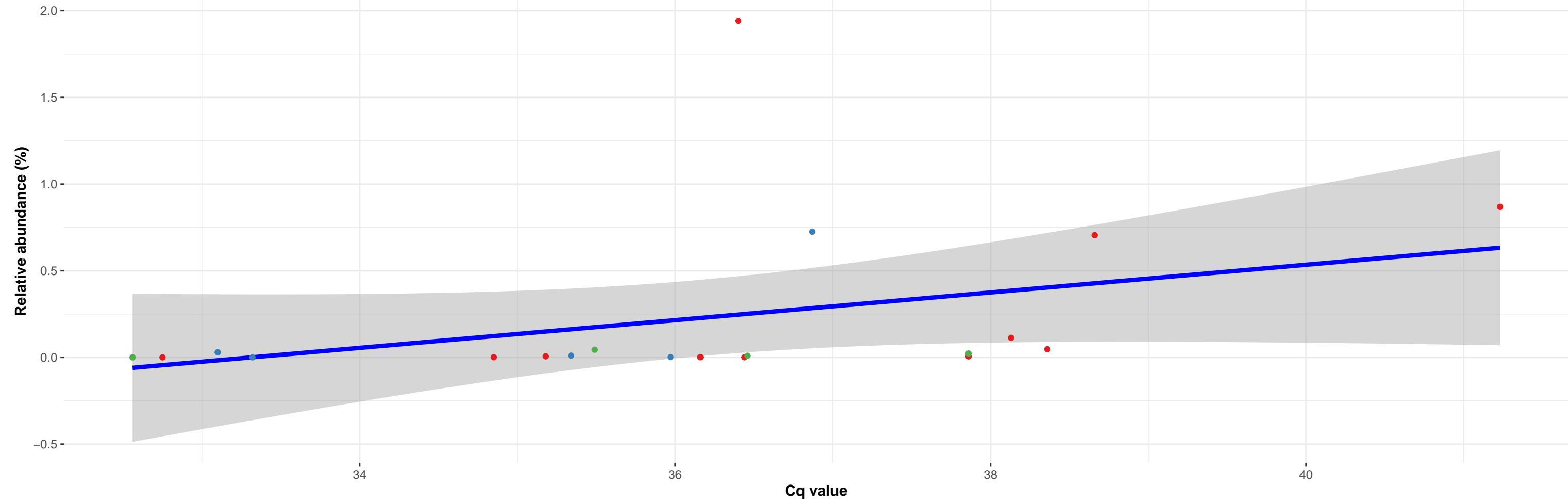


k\_\_Bacteria; p\_\_Firmicutes; c\_\_Clostridia; o\_\_Clostridiales; f\_\_Peptostreptococcaceae; g\_\_Paeniclostridium; s\_\_uncultured bacterium

featureID: 1b00cdeda74eca68518123e3b3036f1f

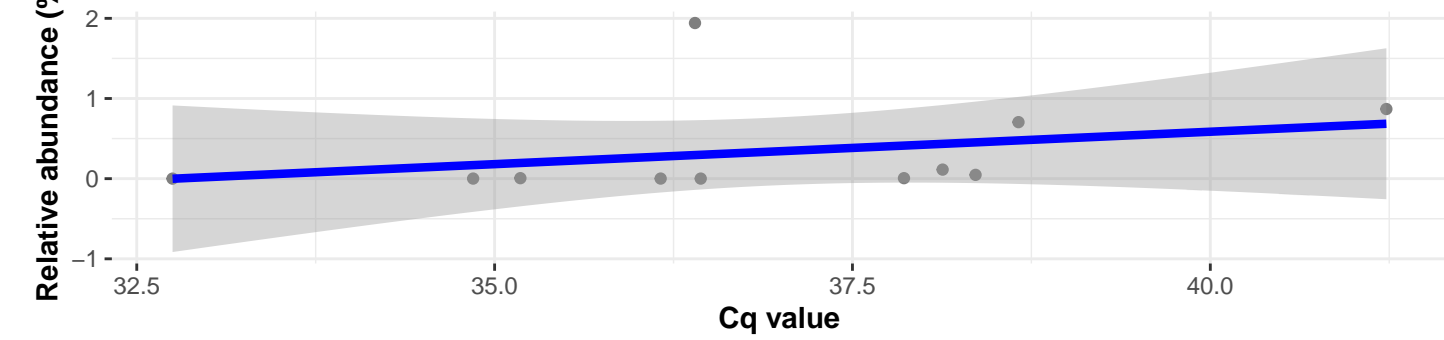
Correlation with all samples

$\log_e(S) = 6.100$ ,  $p = 0.001$ ,  $\hat{\rho}_{\text{Spearman}} = 0.665$ ,  $CI_{95\%} [0.302, 0.859]$ ,  $n_{\text{pairs}} = 20$

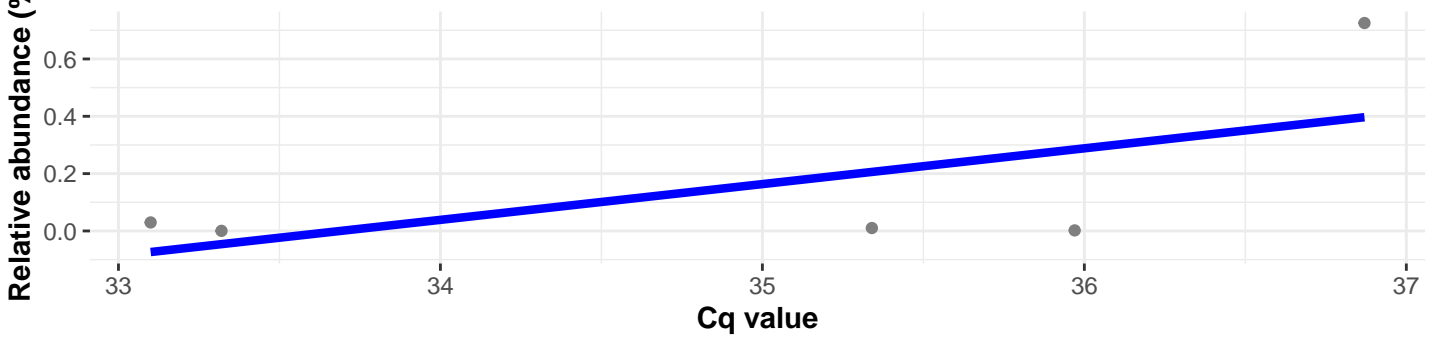


Correlation within: Tilapia\_farmed\_pond

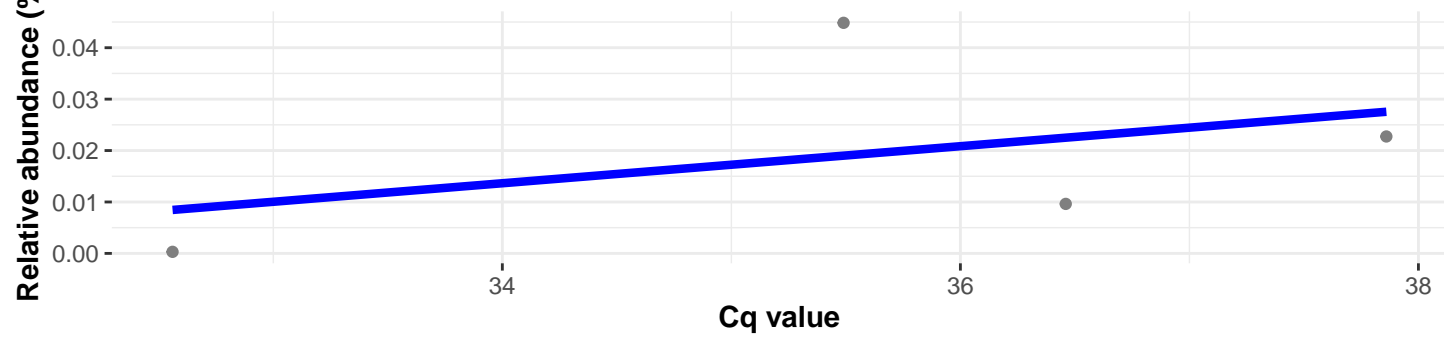
$\log_e(S) = 4.277$ ,  $p = 0.023$ ,  $\hat{\rho}_{\text{Spearman}} = 0.673$ ,  $CI_{95\%} [0.102, 0.910]$ ,  $n_{\text{pairs}} = 11$



Correlation within: Tilapia\_farmed\_lake



Correlation within: Tilapia\_wild\_lake

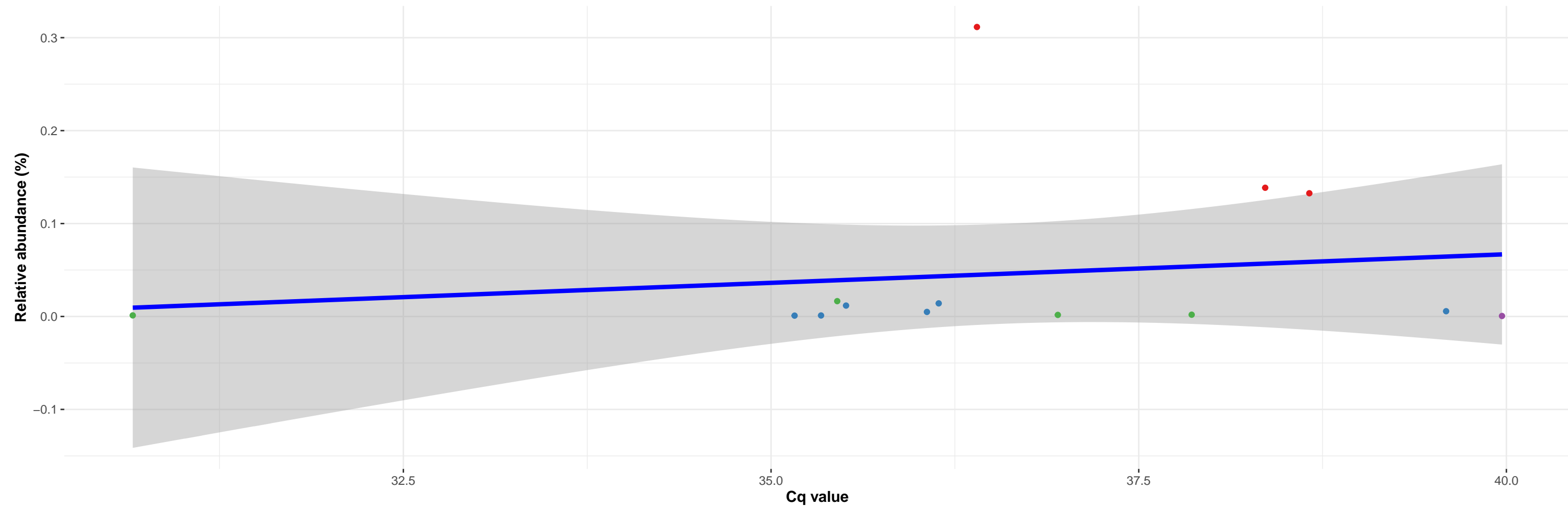


k\_\_Bacteria; p\_\_Cyanobacteria; c\_\_Oxyphotobacteria; o\_\_Synechococcales; f\_\_Cyanobiaceae; g\_\_Cyanobium PCC-6307; NA

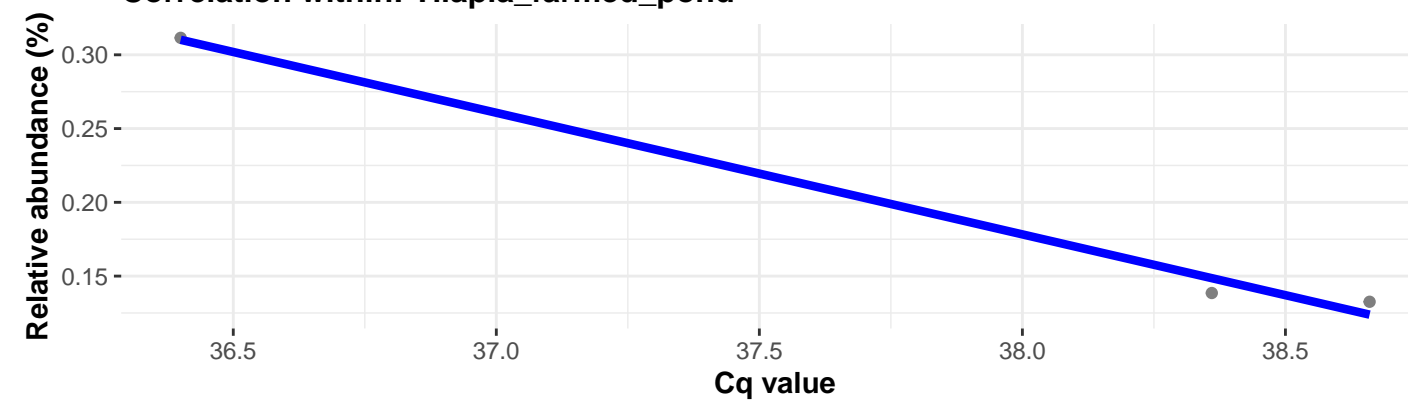
featureID: e7ce2cd99fee0bb346892bd41d5aae49

### Correlation with all samples

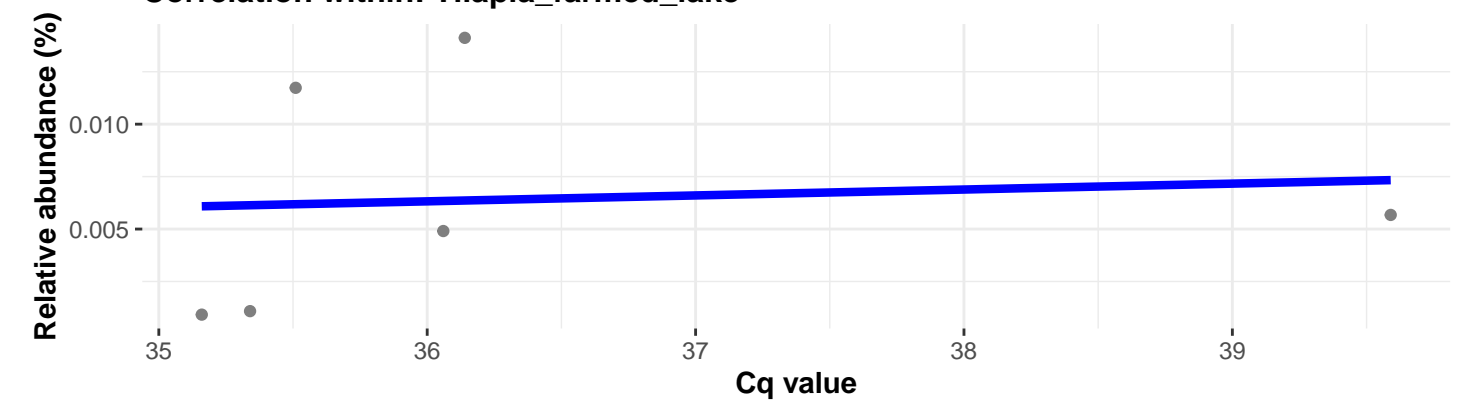
$\log_e(S) = 5.858$ ,  $p = 0.427$ ,  $\hat{\rho}_{\text{Spearman}} = 0.231$ ,  $CI_{95\%} [-0.357, 0.688]$ ,  $n_{\text{pairs}} = 14$



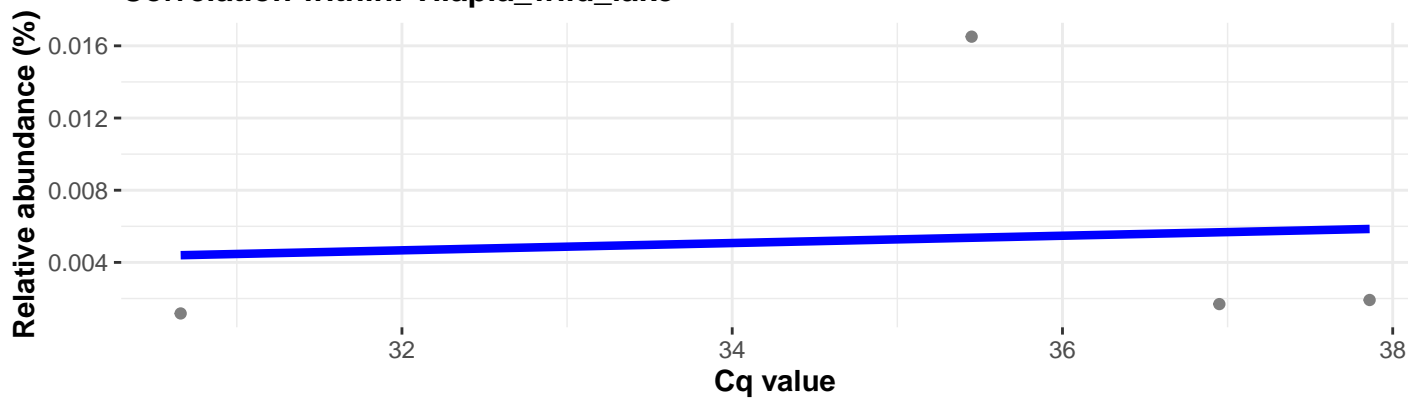
### Correlation within: Tilapia\_farmed\_pond



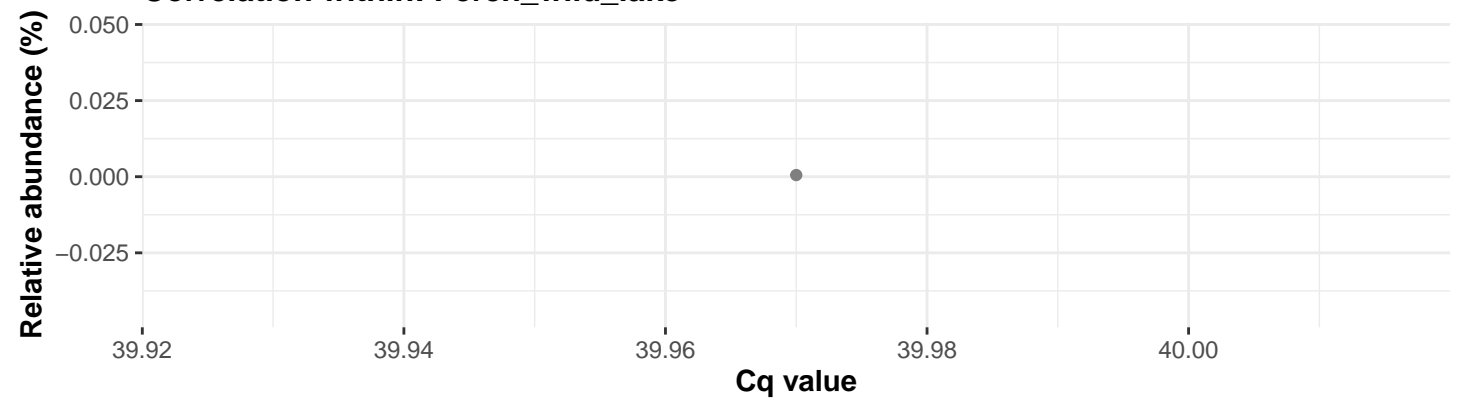
### Correlation within: Tilapia\_farmed\_lake



### Correlation within: Tilapia\_wild\_lake



### Correlation within: Perch\_wild\_lake

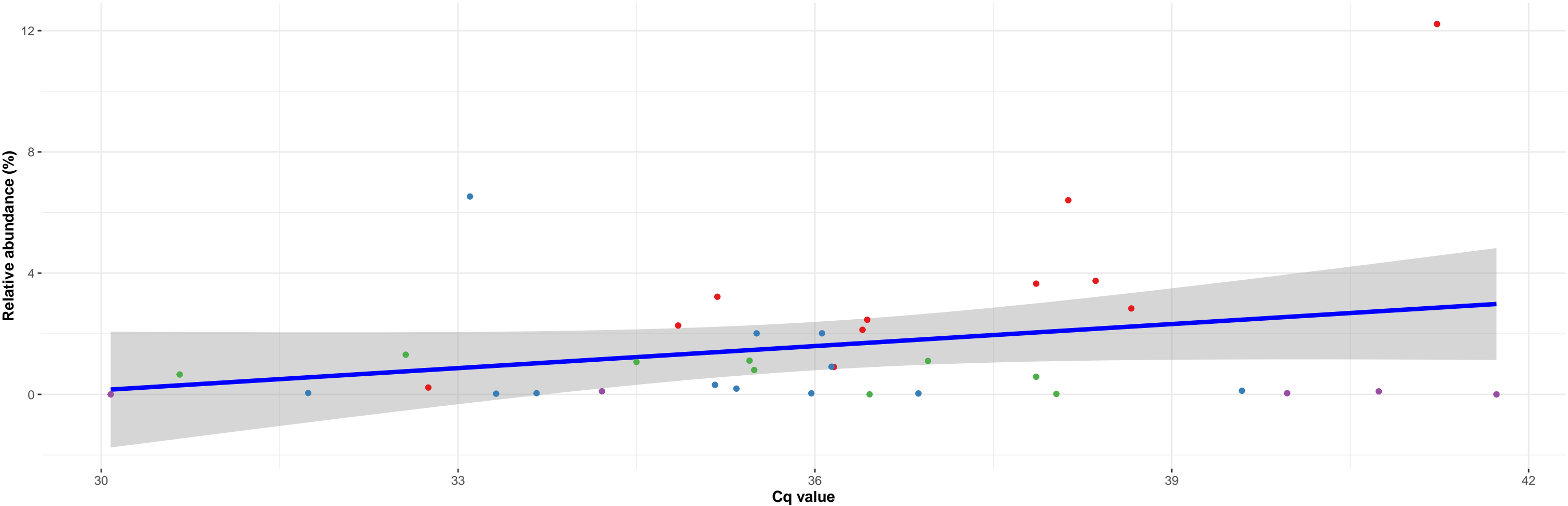


k\_\_Bacteria; p\_\_Firmicutes; c\_\_Clostridia; o\_\_Clostridiales; f\_\_Clostridiaceae 1; g\_\_Clostridium sensu stricto 1; NA

featureID: b7d96ace8aeb2c69a218149ac26a6ce9

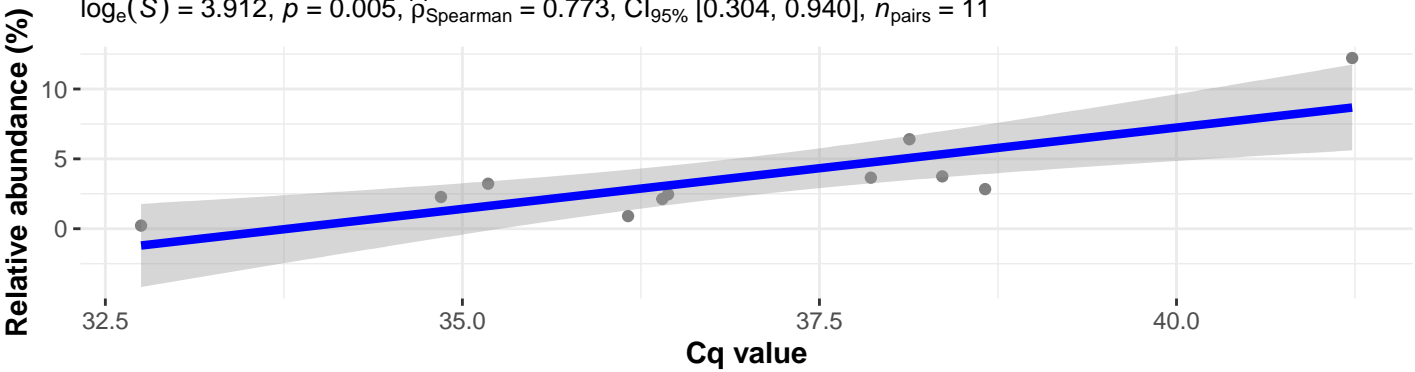
Correlation with all samples

$\log_e(S) = 8.937$ ,  $p = 0.564$ ,  $\hat{\rho}_{\text{Spearman}} = 0.098$ ,  $\text{CI}_{95\%} [-0.243, 0.417]$ ,  $n_{\text{pairs}} = 37$



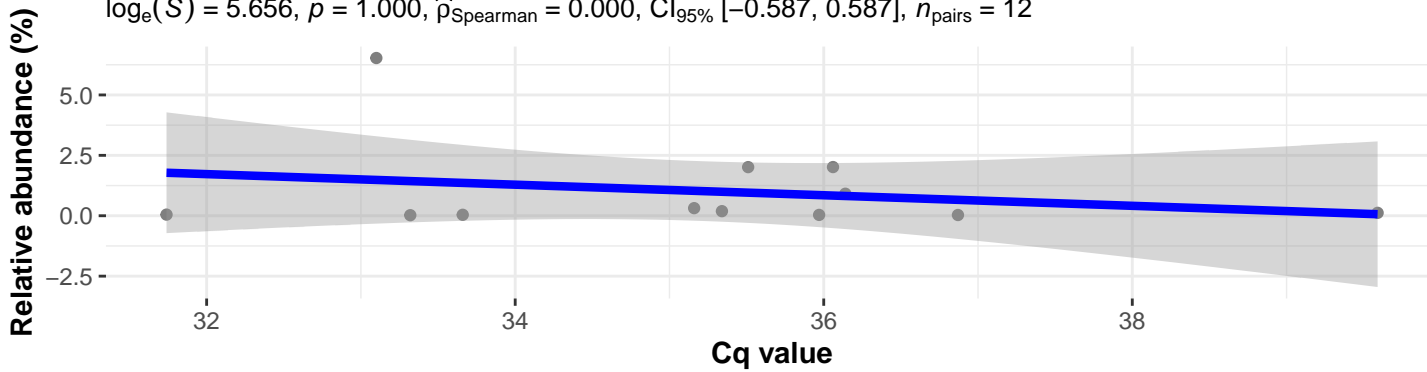
Correlation within: Tilapia\_farmed\_pond

$\log_e(S) = 3.912$ ,  $p = 0.005$ ,  $\hat{\rho}_{\text{Spearman}} = 0.773$ ,  $\text{CI}_{95\%} [0.304, 0.940]$ ,  $n_{\text{pairs}} = 11$



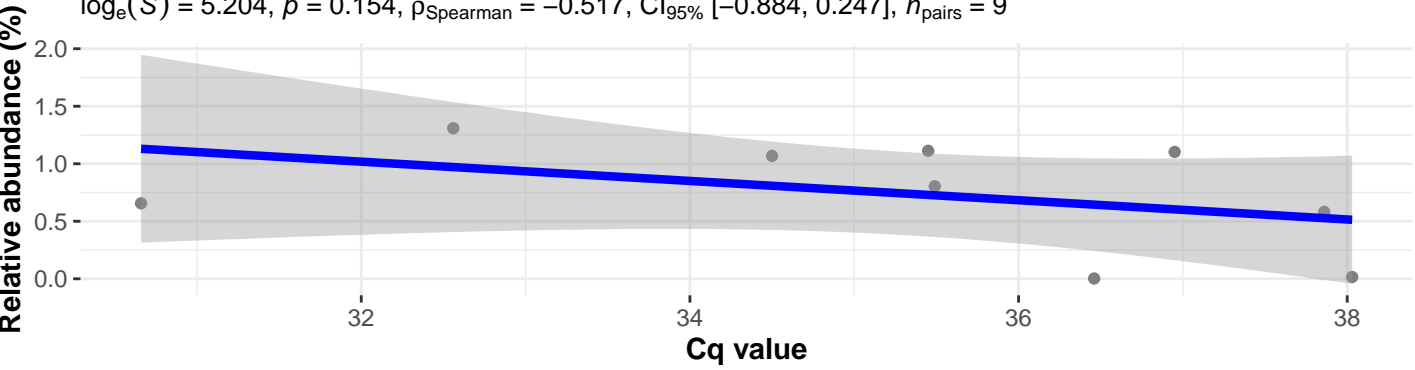
Correlation within: Tilapia\_farmed\_lake

$\log_e(S) = 5.656$ ,  $p = 1.000$ ,  $\hat{\rho}_{\text{Spearman}} = 0.000$ ,  $\text{CI}_{95\%} [-0.587, 0.587]$ ,  $n_{\text{pairs}} = 12$

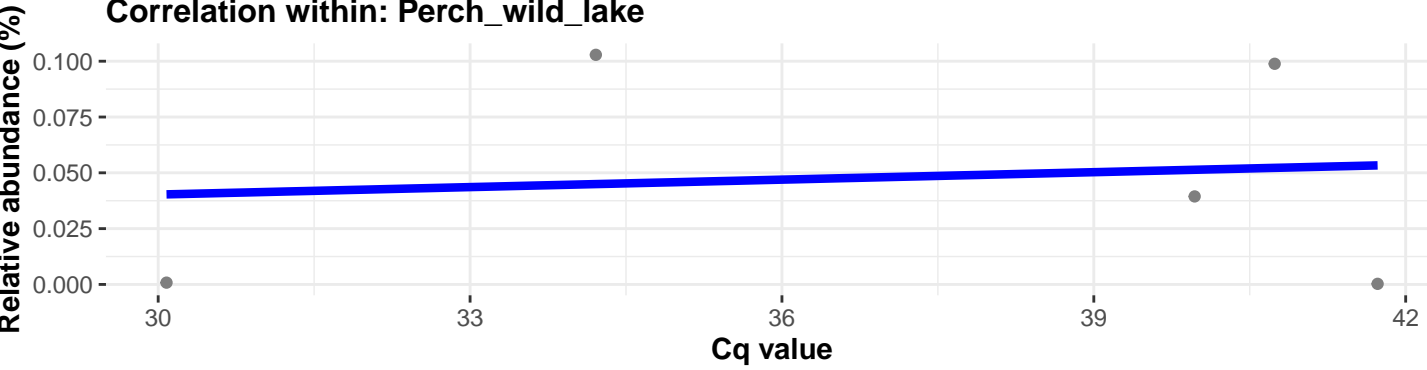


Correlation within: Tilapia\_wild\_lake

$\log_e(S) = 5.204$ ,  $p = 0.154$ ,  $\hat{\rho}_{\text{Spearman}} = -0.517$ ,  $\text{CI}_{95\%} [-0.884, 0.247]$ ,  $n_{\text{pairs}} = 9$



Correlation within: Perch\_wild\_lake

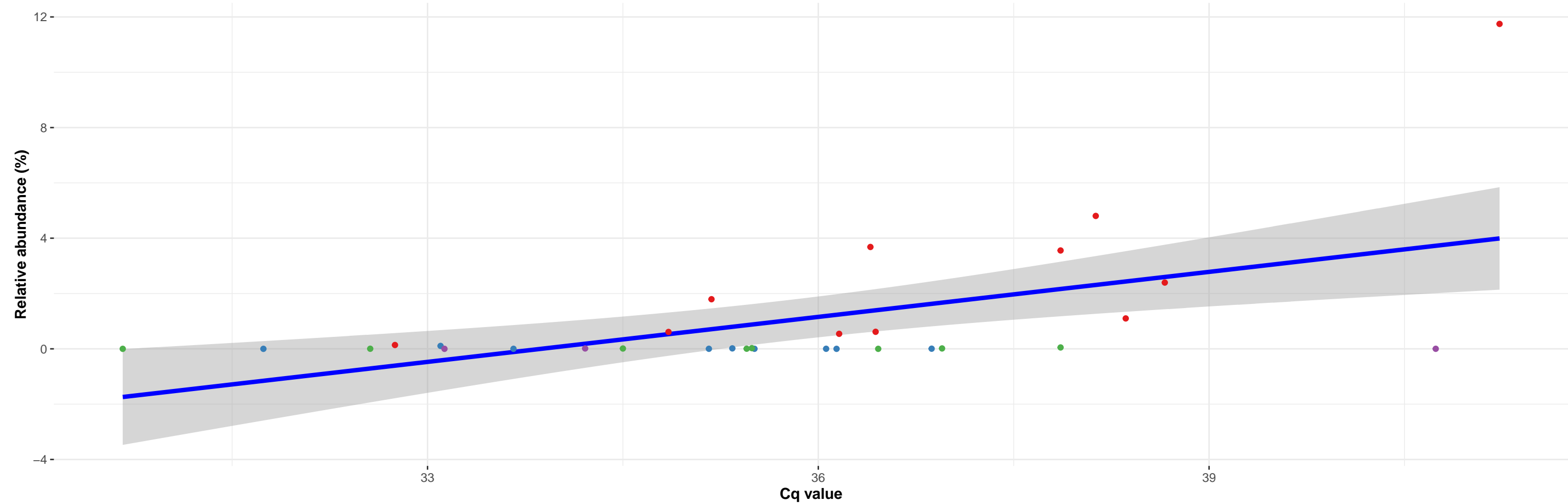


k\_\_Bacteria; p\_\_Firmicutes; c\_\_Clostridia; o\_\_Clostridiales; f\_\_Clostridiaceae 1; NA; NA

featureID: eeb27bcd7d7aaa8b5bd04631b5bea486

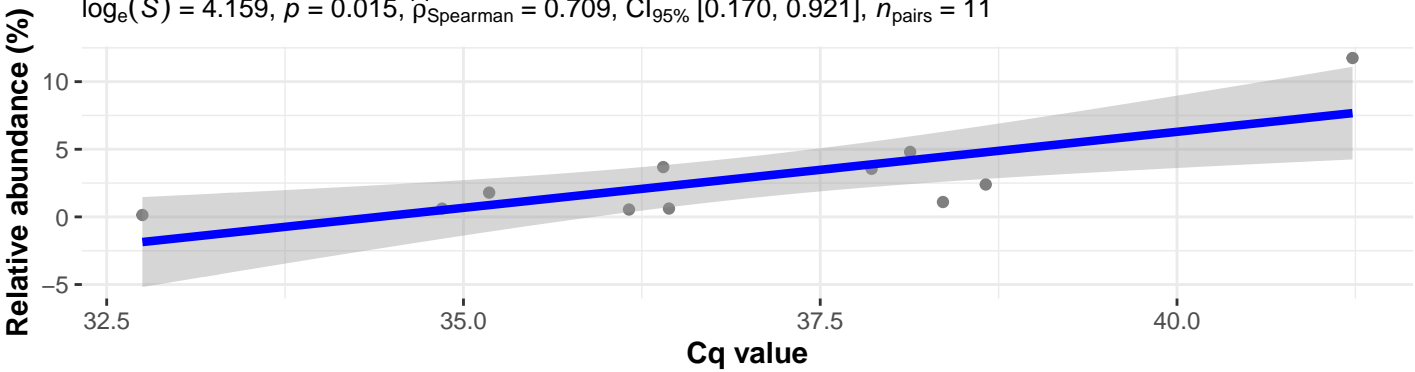
Correlation with all samples

$\log_e(S) = 7.836$ ,  $p = 0.005$ ,  $\hat{\rho}_{\text{Spearman}} = 0.490$ ,  $\text{CI}_{95\%} [0.153, 0.725]$ ,  $n_{\text{pairs}} = 31$



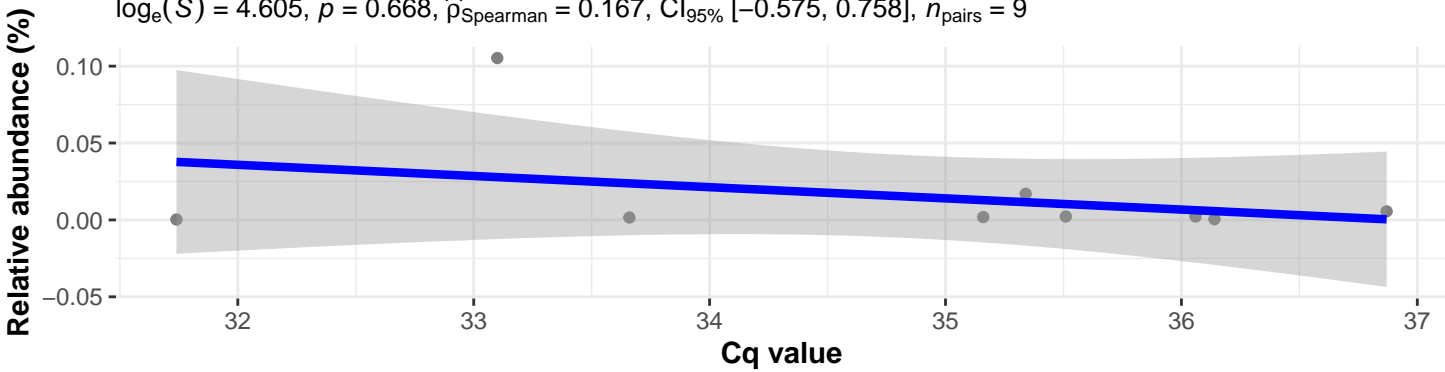
Correlation within: Tilapia\_farmed\_pond

$\log_e(S) = 4.159$ ,  $p = 0.015$ ,  $\hat{\rho}_{\text{Spearman}} = 0.709$ ,  $\text{CI}_{95\%} [0.170, 0.921]$ ,  $n_{\text{pairs}} = 11$



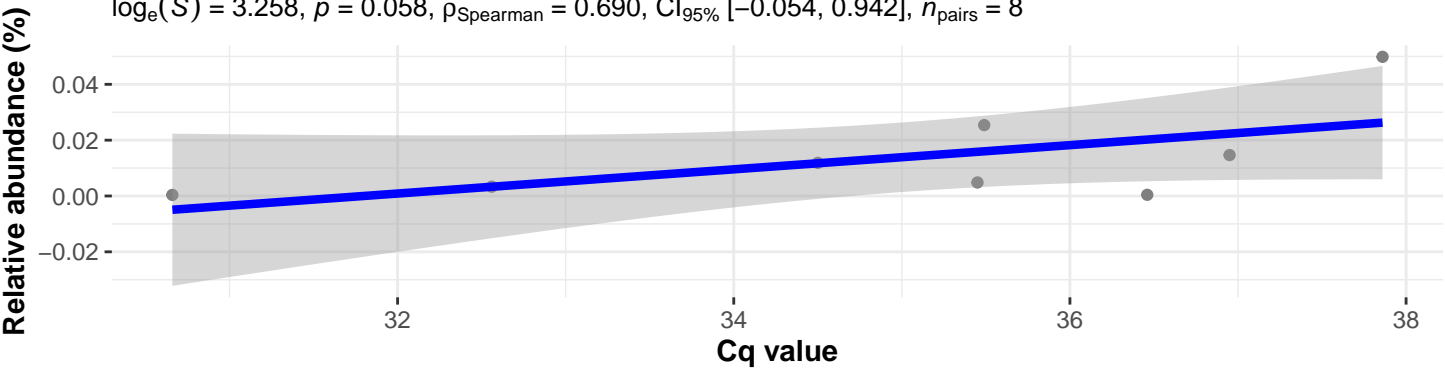
Correlation within: Tilapia\_farmed\_lake

$\log_e(S) = 4.605$ ,  $p = 0.668$ ,  $\hat{\rho}_{\text{Spearman}} = 0.167$ ,  $\text{CI}_{95\%} [-0.575, 0.758]$ ,  $n_{\text{pairs}} = 9$

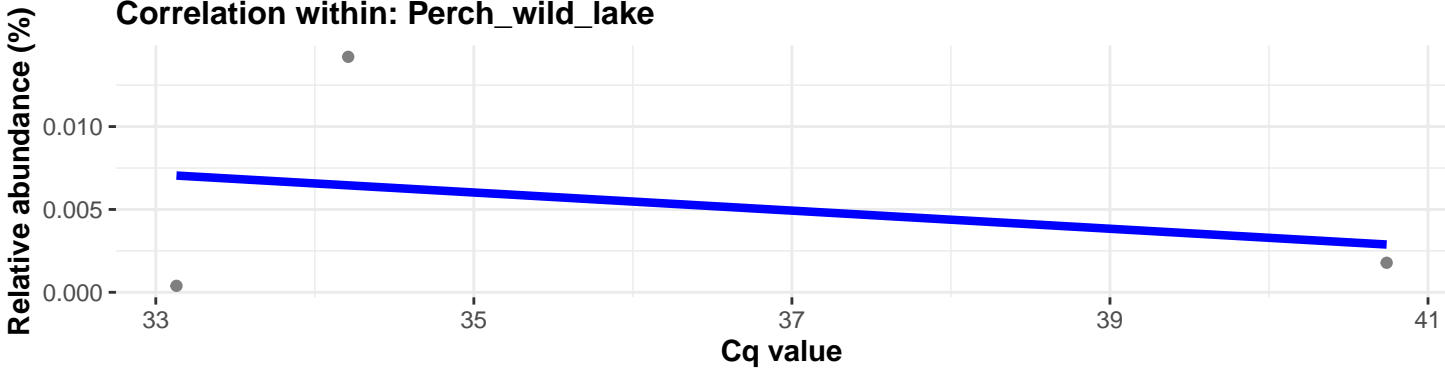


Correlation within: Tilapia\_wild\_lake

$\log_e(S) = 3.258$ ,  $p = 0.058$ ,  $\hat{\rho}_{\text{Spearman}} = 0.690$ ,  $\text{CI}_{95\%} [-0.054, 0.942]$ ,  $n_{\text{pairs}} = 8$



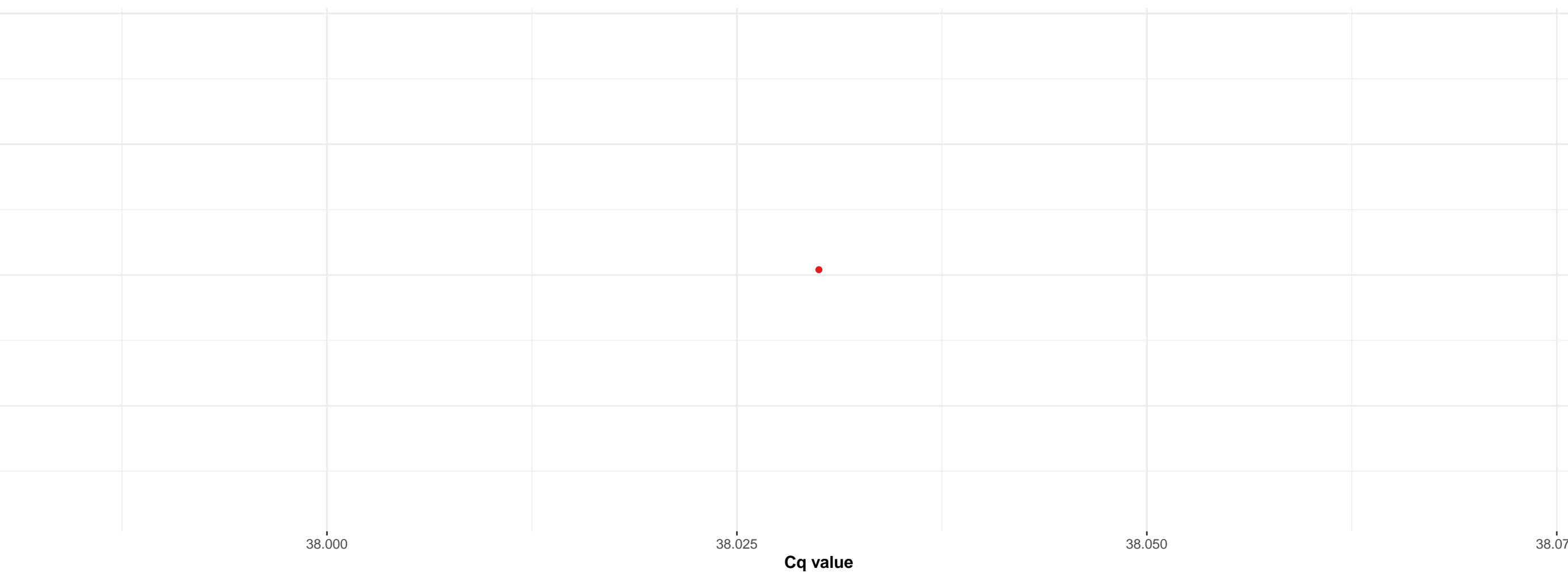
Correlation within: Perch\_wild\_lake



k\_\_Bacteria; p\_\_Firmicutes; c\_\_Bacilli; o\_\_Lactobacillales; f\_\_Streptococcaceae; g\_\_Streptococcus; NA

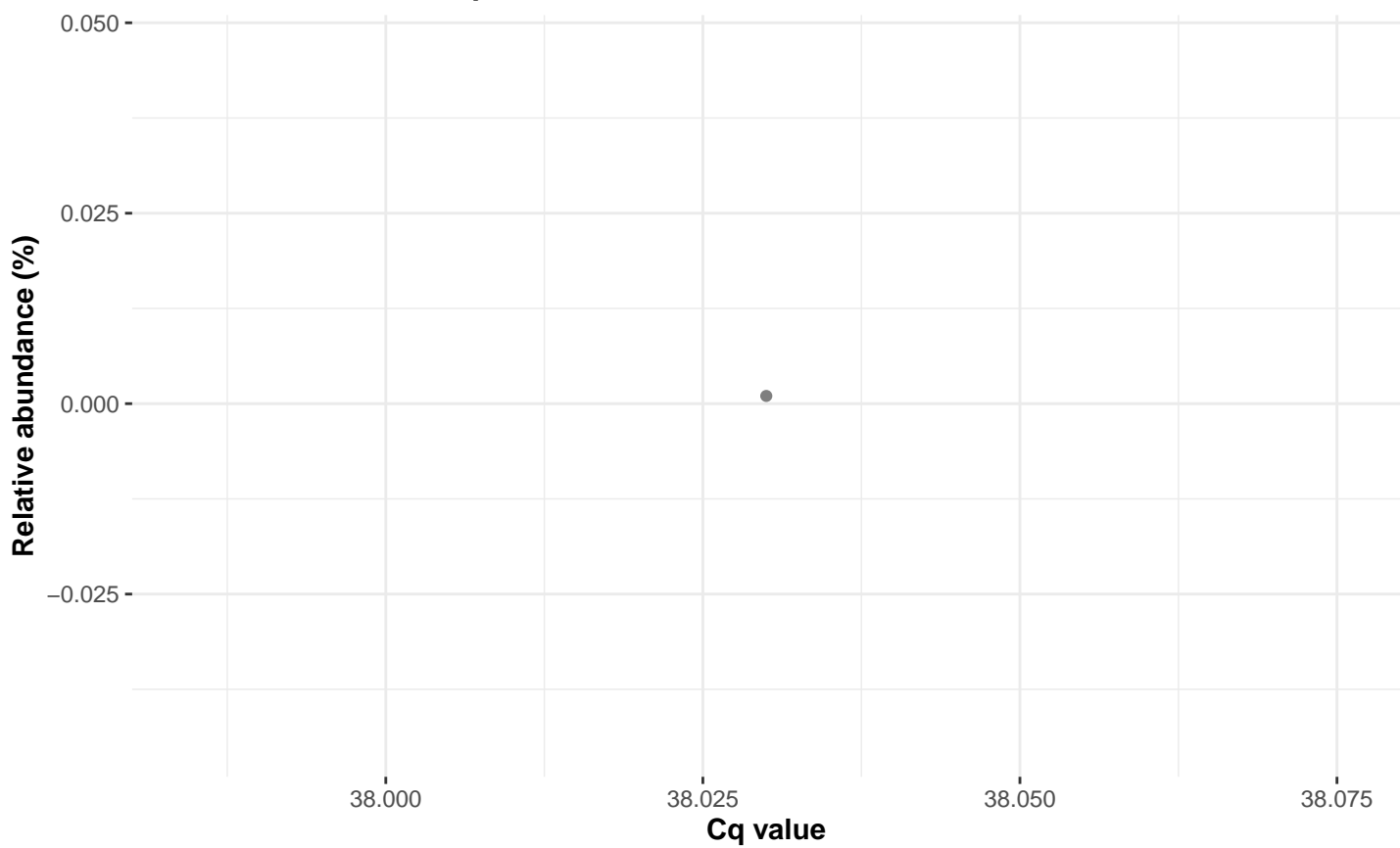
featureID: ba4ab8dea6b4223dbc9ed5bbf3ea60ea

Correlation with all samples



Sample\_type • Tilapia\_wild\_lake

Correlation within: Tilapia\_wild\_lake

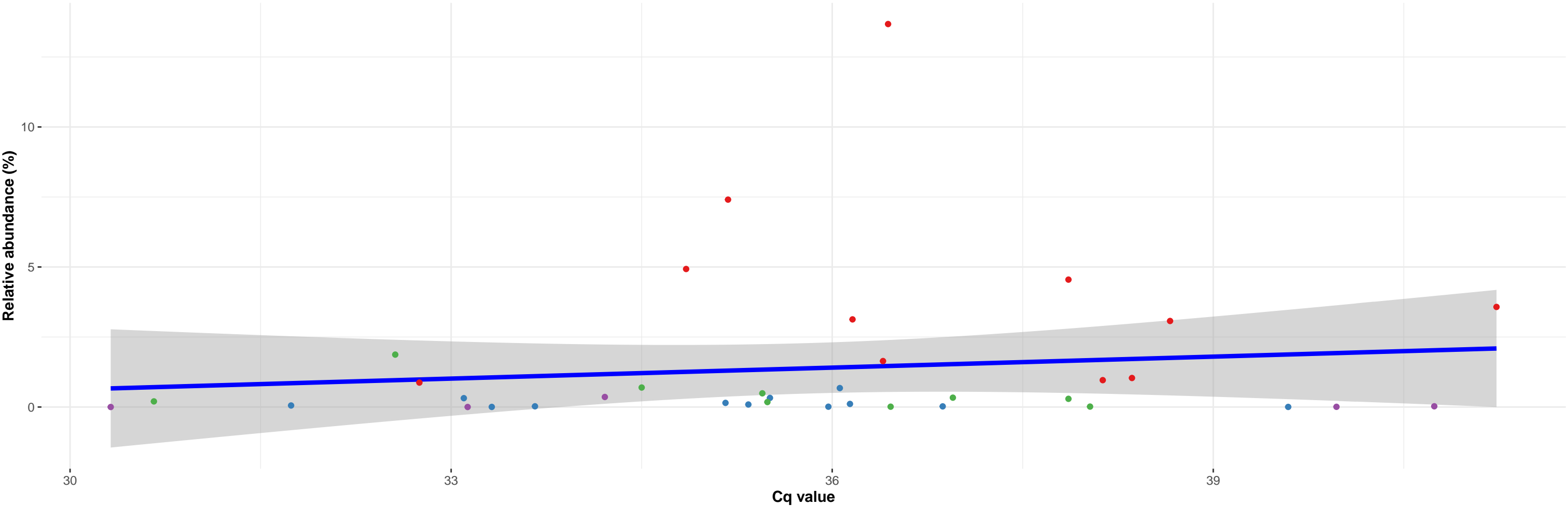


k\_\_Bacteria; p\_\_Firmicutes; c\_\_Clostridia; o\_\_Clostridiales; f\_\_Clostridiaceae 1; g\_\_Clostridium sensu stricto 1; NA

featureID: d112db53cc44b1be8395e16355a2109d

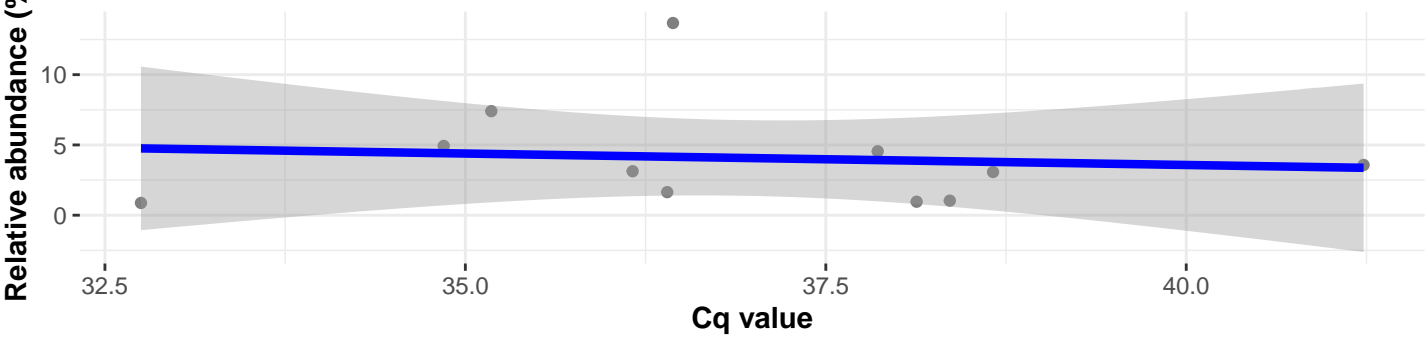
Correlation with all samples

$\log_e(S) = 8.909$ ,  $p = 0.469$ ,  $\hat{\rho}_{\text{Spearman}} = 0.123$ ,  $\text{CI}_{95\%} [-0.219, 0.438]$ ,  $n_{\text{pairs}} = 37$



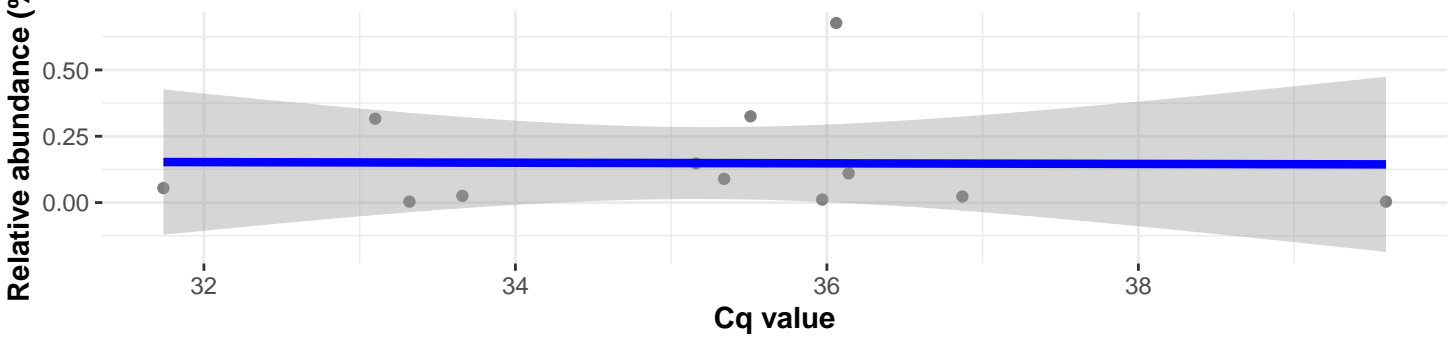
Correlation within: Tilapia\_farmed\_pond

$\log_e(S) = 5.489$ ,  $p = 0.770$ ,  $\hat{\rho}_{\text{Spearman}} = -0.100$ ,  $\text{CI}_{95\%} [-0.672, 0.546]$ ,  $n_{\text{pairs}} = 11$



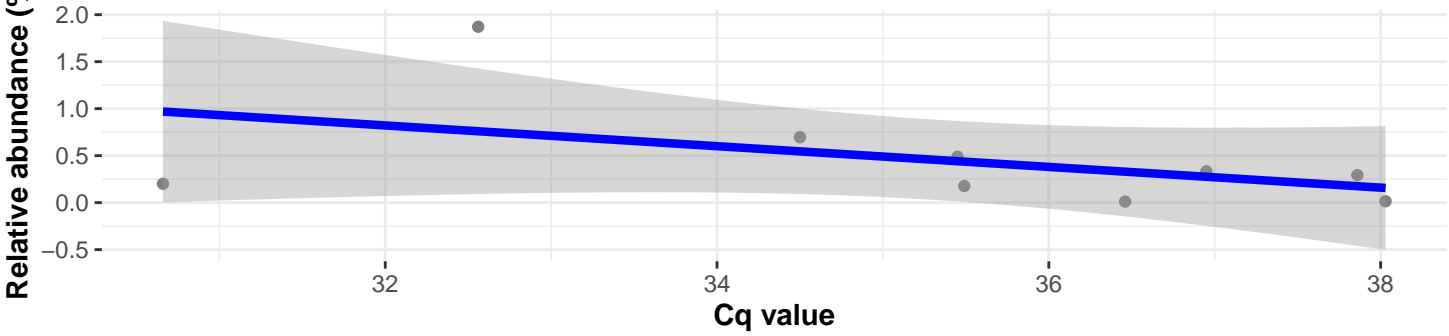
Correlation within: Tilapia\_farmed\_lake

$\log_e(S) = 5.805$ ,  $p = 0.618$ ,  $\hat{\rho}_{\text{Spearman}} = -0.161$ ,  $\text{CI}_{95\%} [-0.683, 0.470]$ ,  $n_{\text{pairs}} = 12$

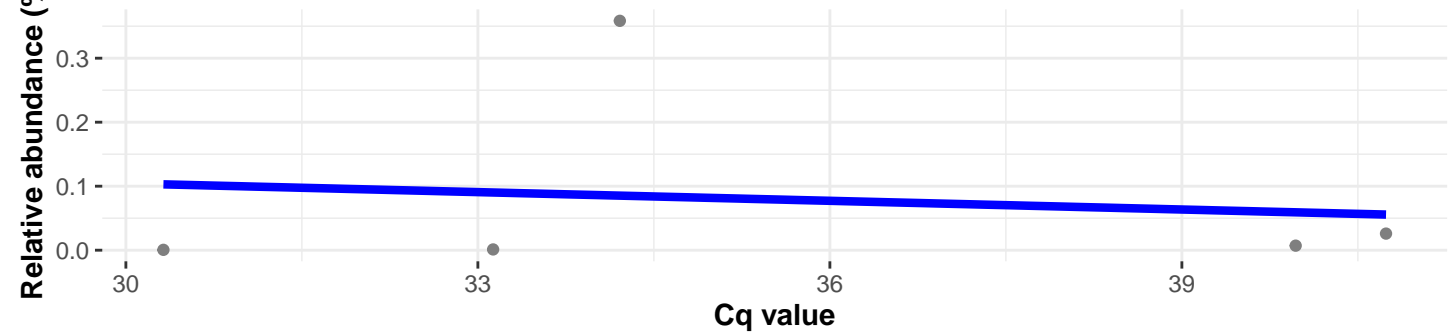


Correlation within: Tilapia\_wild\_lake

$\log_e(S) = 5.193$ ,  $p = 0.170$ ,  $\hat{\rho}_{\text{Spearman}} = -0.500$ ,  $\text{CI}_{95\%} [-0.879, 0.268]$ ,  $n_{\text{pairs}} = 9$



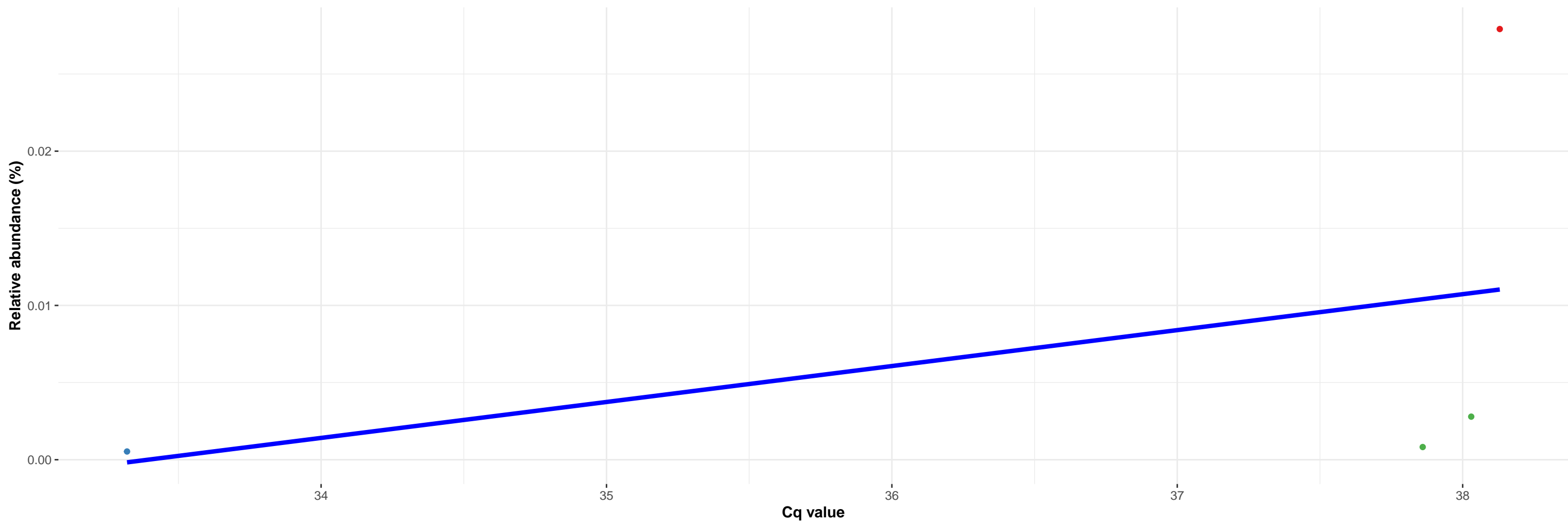
Correlation within: Perch\_wild\_lake



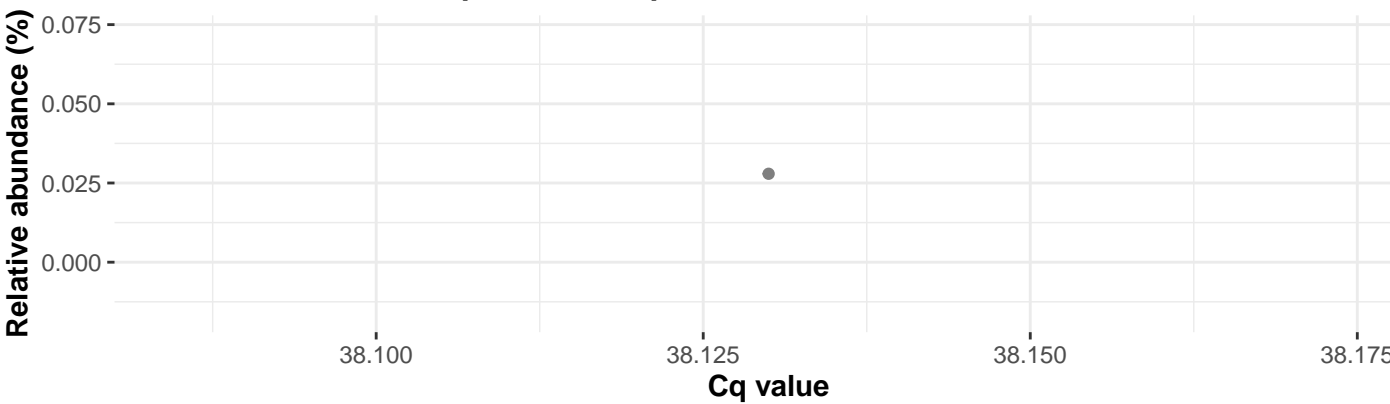
k\_\_Bacteria; p\_\_Actinobacteria; c\_\_Actinobacteria; o\_\_Corynebacteriales; f\_\_Corynebacteriaceae; g\_\_Corynebacterium 1; NA

featureID: d4e740bc5c2587cbbb188e8e30026611

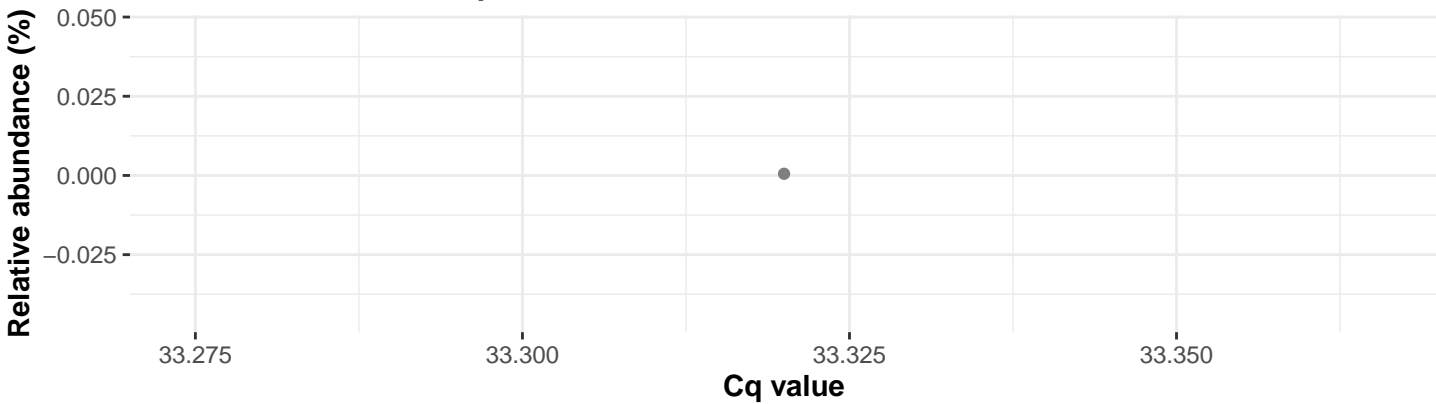
Correlation with all samples



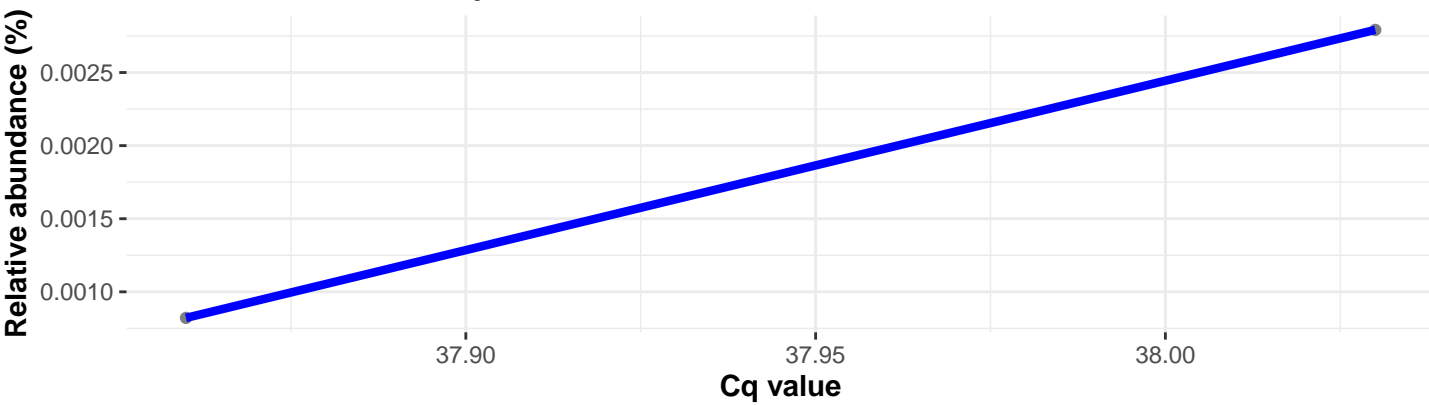
Correlation within: Tilapia\_farmed\_pond



Correlation within: Tilapia\_farmed\_lake



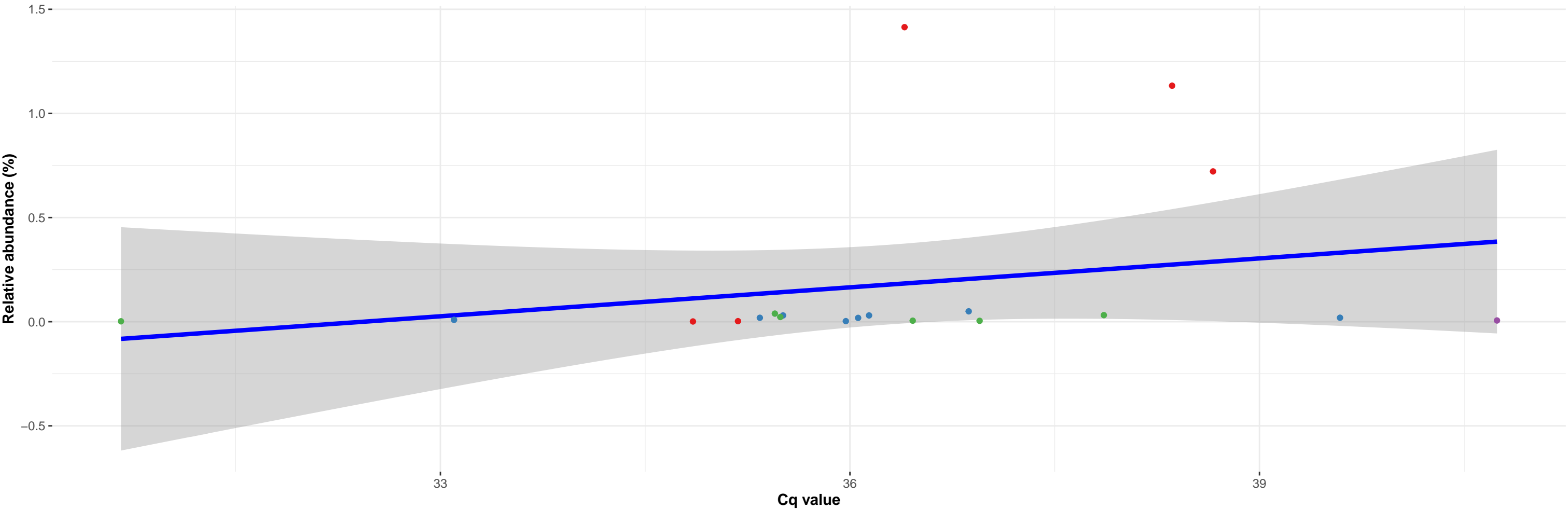
Correlation within: Tilapia\_wild\_lake



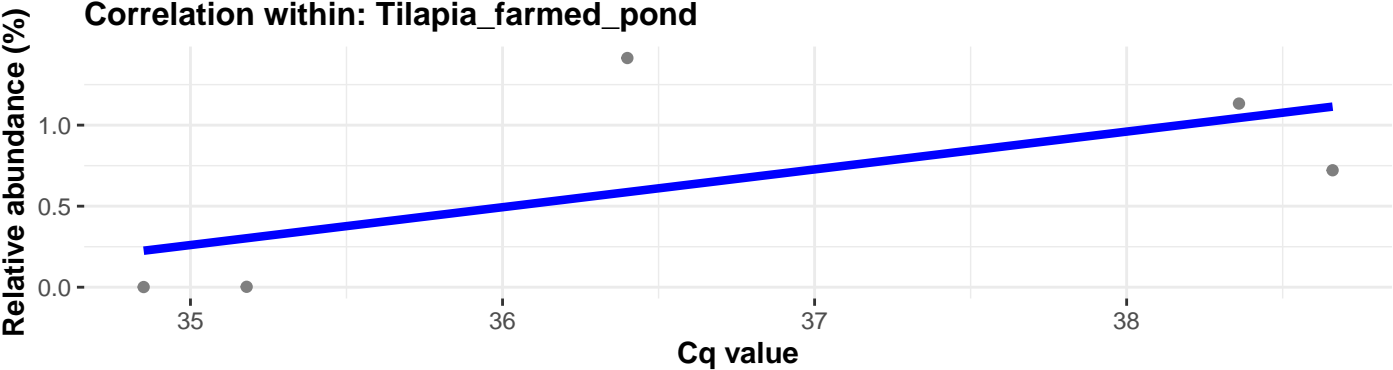
featureID: 12e90f65e34a30ad48d9e3f3b842b30d

Correlation with all samples

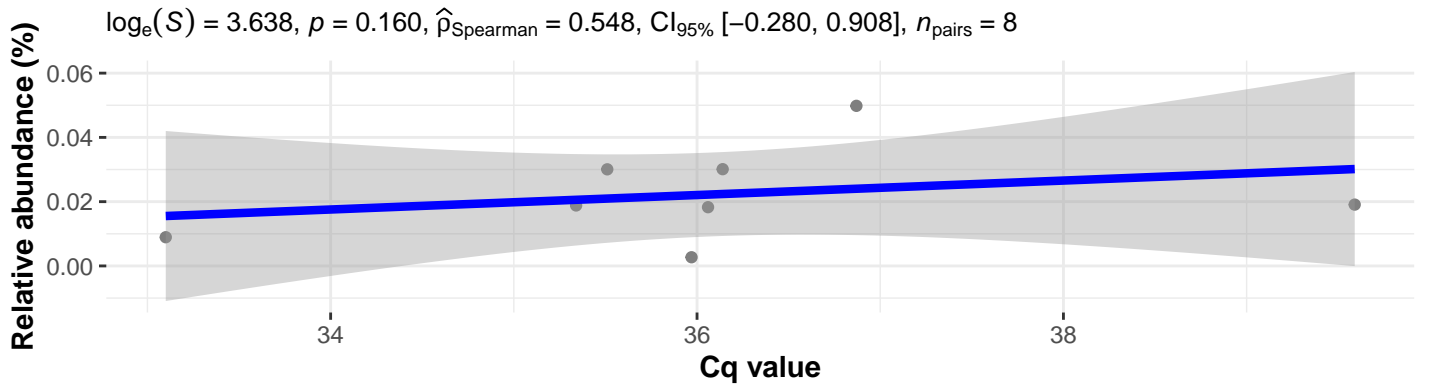
$\log_e(S) = 6.568$ ,  $p = 0.039$ ,  $\hat{\rho}_{\text{Spearman}} = 0.465$ ,  $\text{CI}_{95\%} [0.014, 0.758]$ ,  $n_{\text{pairs}} = 20$



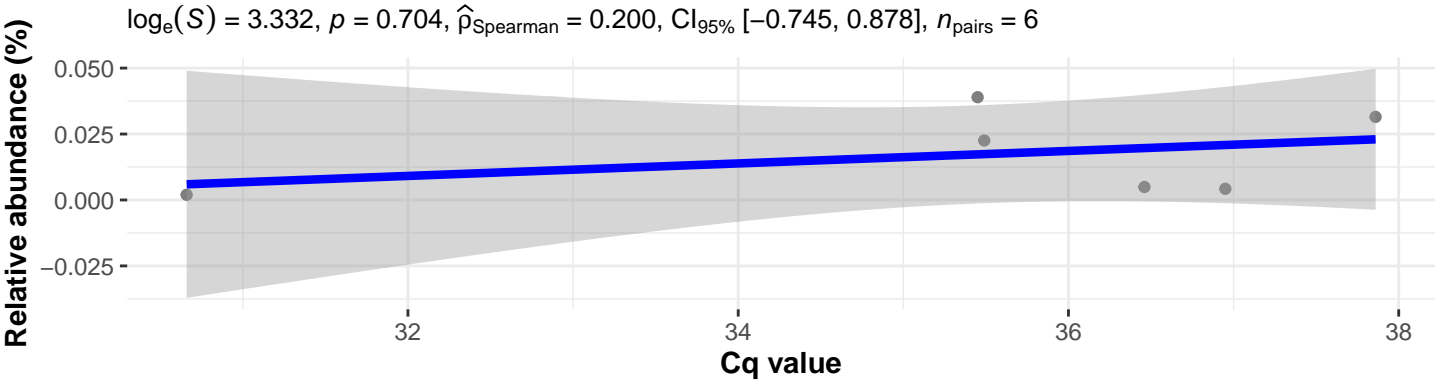
Correlation within: Tilapia\_farmed\_pond



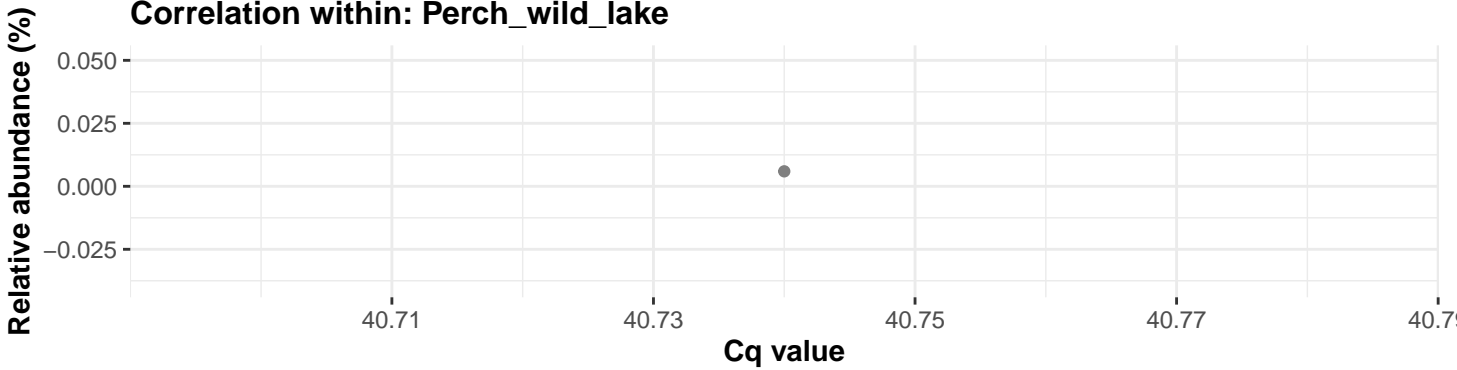
Correlation within: Tilapia\_farmed\_lake



Correlation within: Tilapia\_wild\_lake



Correlation within: Perch\_wild\_lake

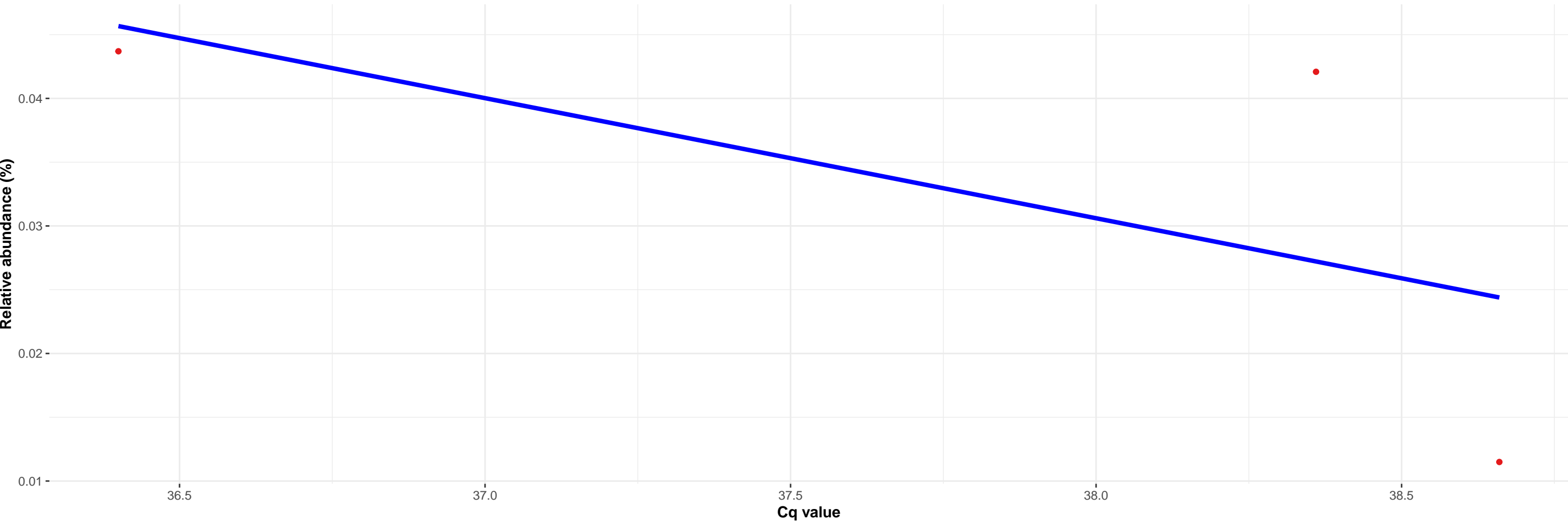




k\_\_Bacteria; p\_\_Chlamydiae; c\_\_Chlamydiae; o\_\_Chlamydiales; f\_\_Parachlamydiaceae; g\_\_Neochlamydia; NA

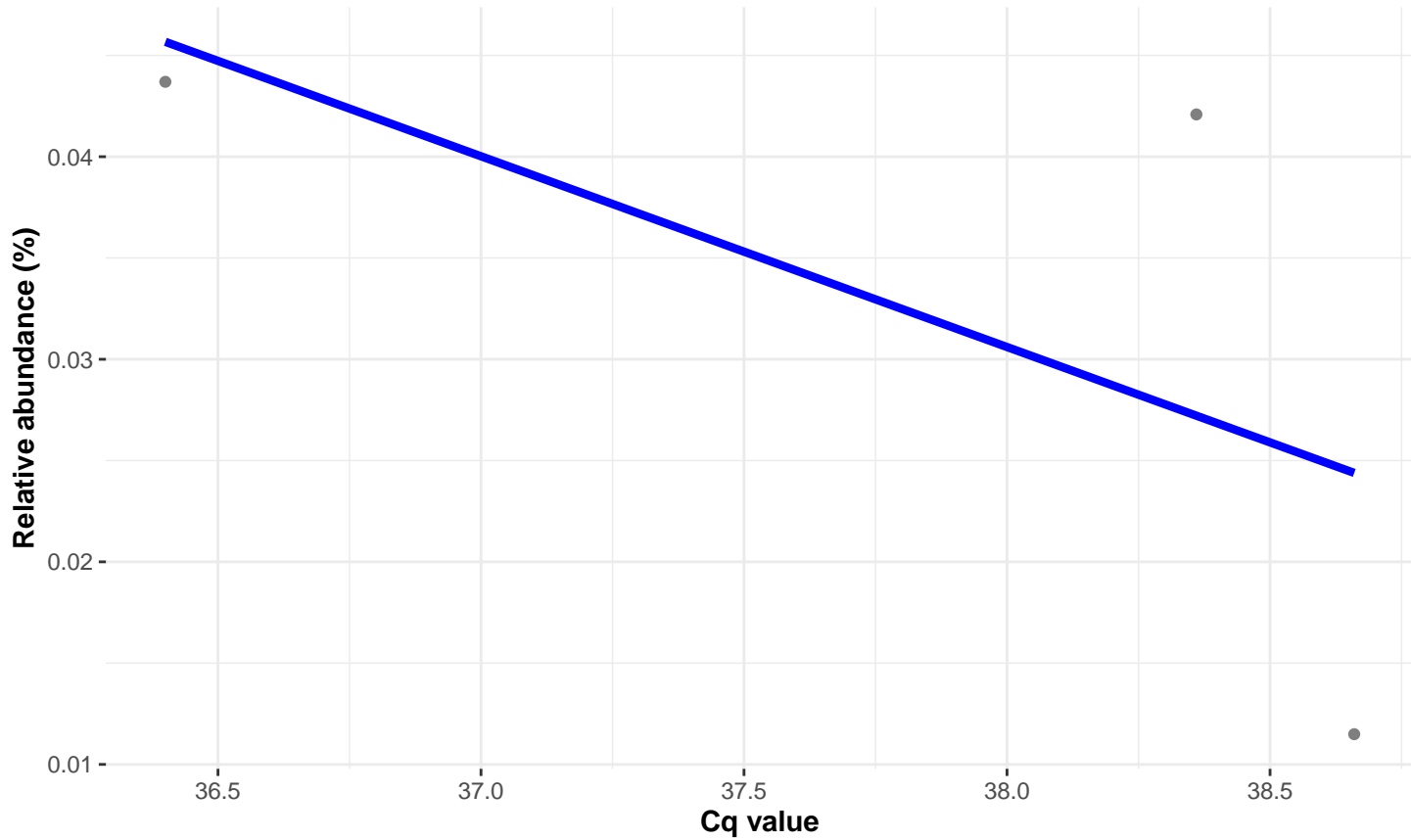
featureID: 35e38ee9b5dff68dbd41115b73741414

Correlation with all samples



Sample\_type • Tilapia\_farmed\_pond

Correlation within: Tilapia\_farmed\_pond

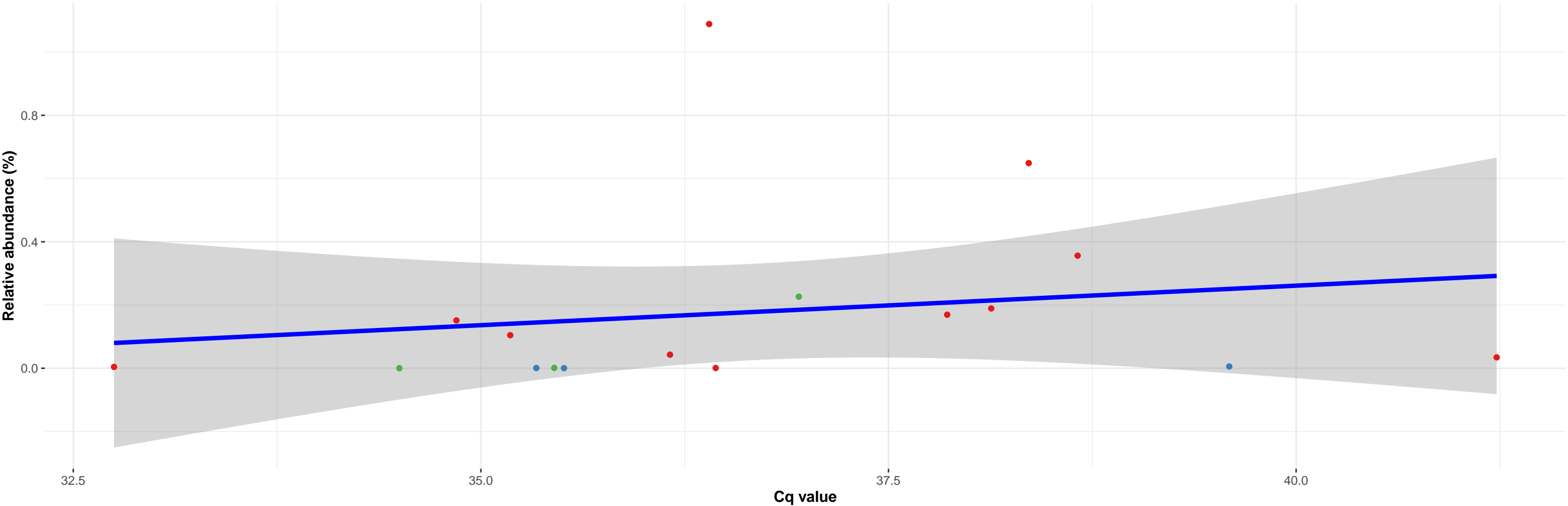


k\_\_Bacteria; p\_\_Proteobacteria; c\_\_Gammaproteobacteria; o\_\_Methylococcales; f\_\_Methylococcaceae; g\_\_Methyloparacoccus; s\_\_uncultured bacterium

featureID: 66c3e0b10570a19d613f692d701da8d0

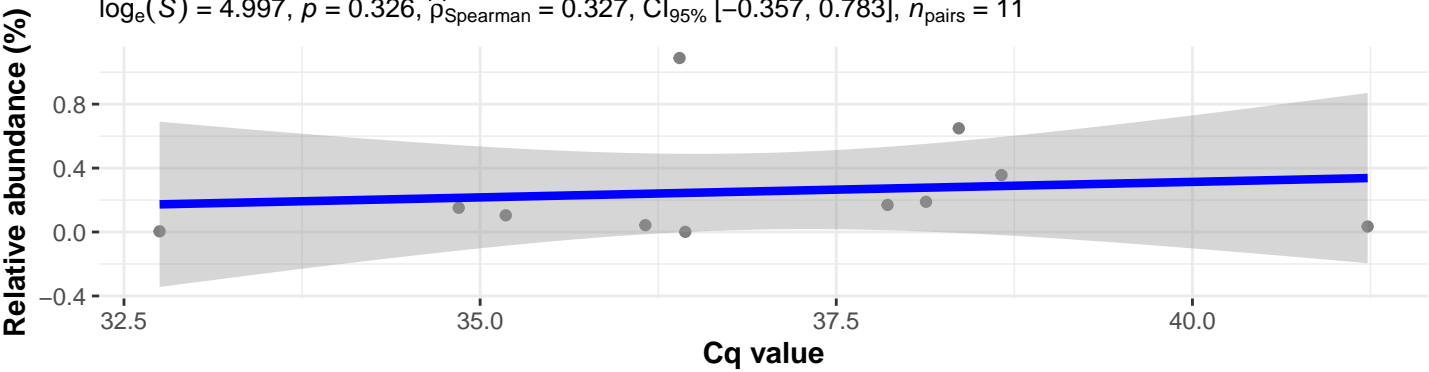
Correlation with all samples

$\log_e(S) = 6.068$ ,  $p = 0.057$ ,  $\hat{\rho}_{\text{Spearman}} = 0.471$ ,  $CI_{95\%} [-0.028, 0.782]$ ,  $n_{\text{pairs}} = 17$

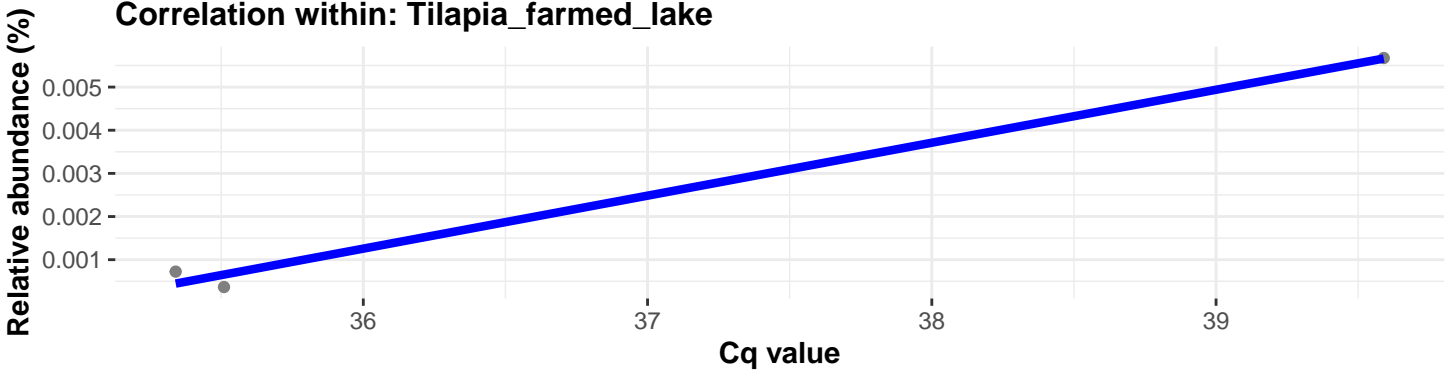


Correlation within: Tilapia\_farmed\_pond

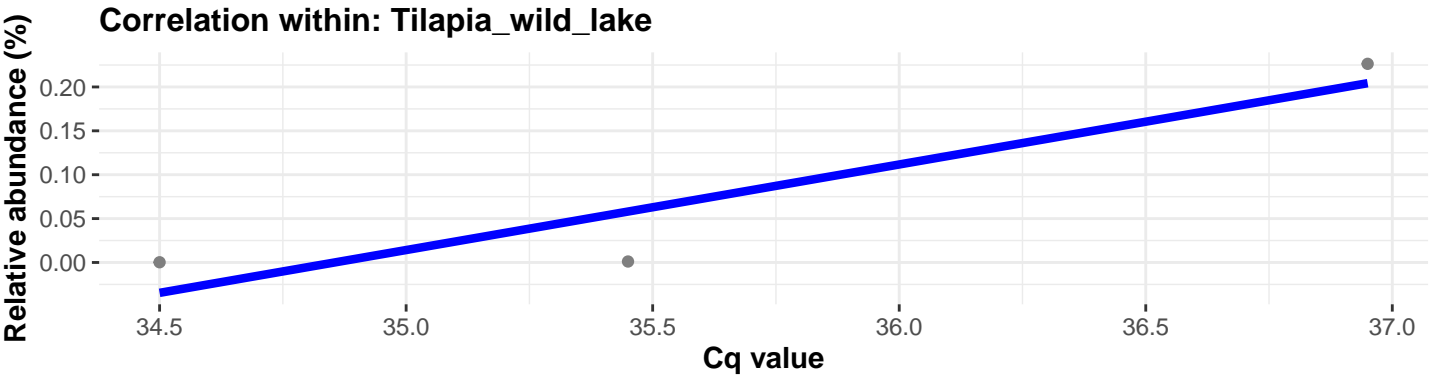
$\log_e(S) = 4.997$ ,  $p = 0.326$ ,  $\hat{\rho}_{\text{Spearman}} = 0.327$ ,  $CI_{95\%} [-0.357, 0.783]$ ,  $n_{\text{pairs}} = 11$



Correlation within: Tilapia\_farmed\_lake



Correlation within: Tilapia\_wild\_lake

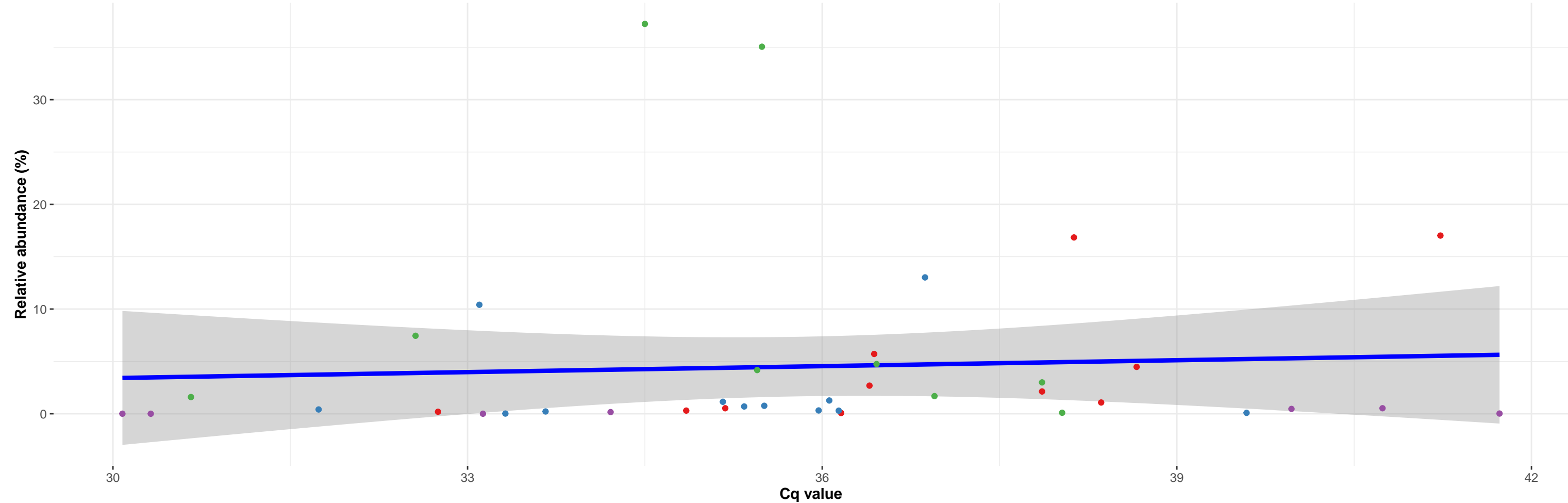


k\_\_Bacteria; p\_\_Firmicutes; c\_\_Clostridia; o\_\_Clostridiales; f\_\_Peptostreptococcaceae; NA; NA

featureID: 8ebe63f7e7dd6bd4ca4dca5a66df57c2

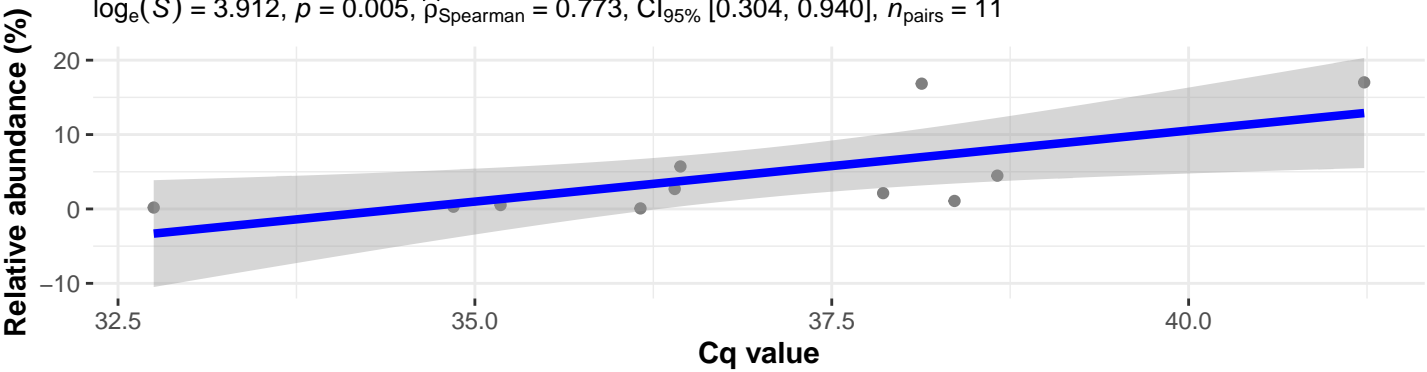
Correlation with all samples

$\log_e(S) = 8.925$ ,  $p = 0.143$ ,  $\hat{\rho}_{\text{Spearman}} = 0.239$ ,  $\text{CI}_{95\%} [-0.092, 0.523]$ ,  $n_{\text{pairs}} = 39$



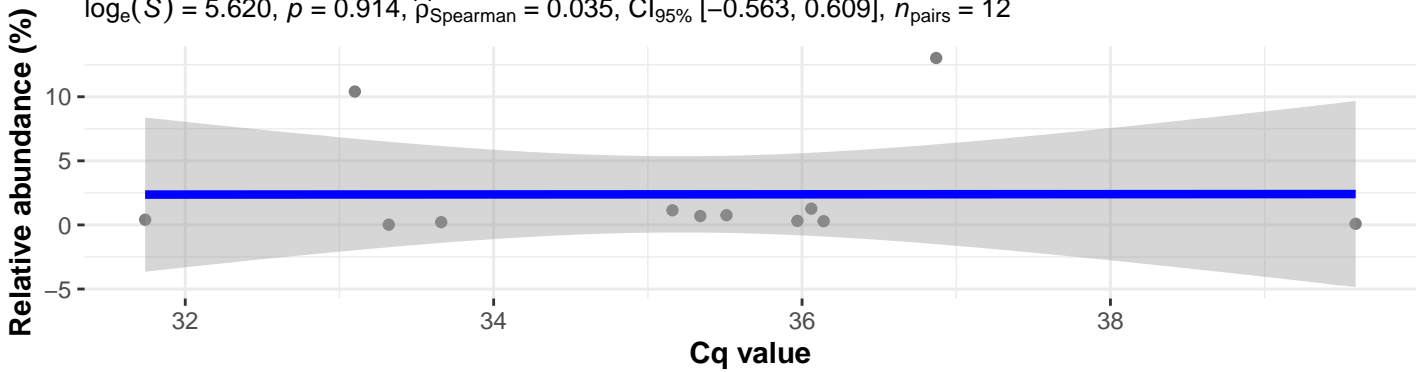
Correlation within: Tilapia\_farmed\_pond

$\log_e(S) = 3.912$ ,  $p = 0.005$ ,  $\hat{\rho}_{\text{Spearman}} = 0.773$ ,  $\text{CI}_{95\%} [0.304, 0.940]$ ,  $n_{\text{pairs}} = 11$



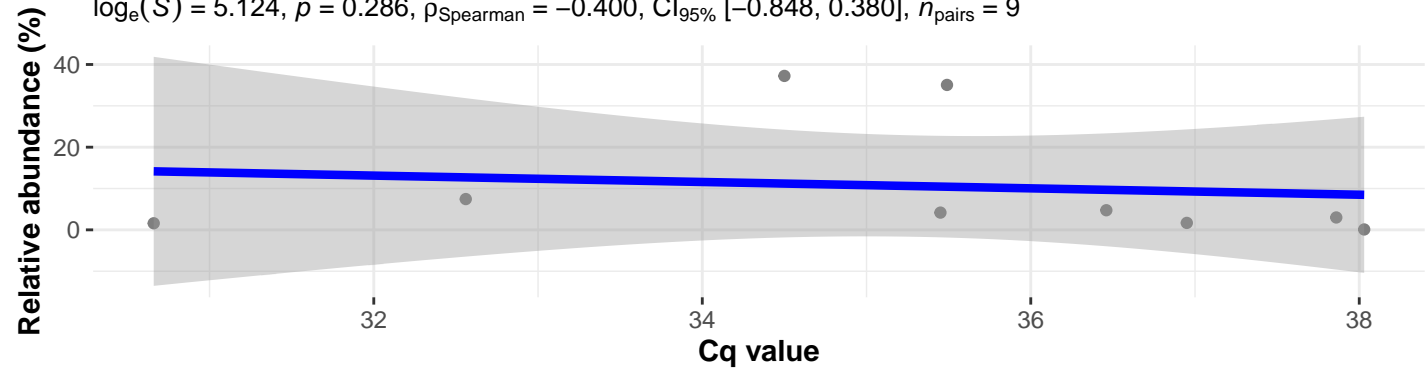
Correlation within: Tilapia\_farmed\_lake

$\log_e(S) = 5.620$ ,  $p = 0.914$ ,  $\hat{\rho}_{\text{Spearman}} = 0.035$ ,  $\text{CI}_{95\%} [-0.563, 0.609]$ ,  $n_{\text{pairs}} = 12$



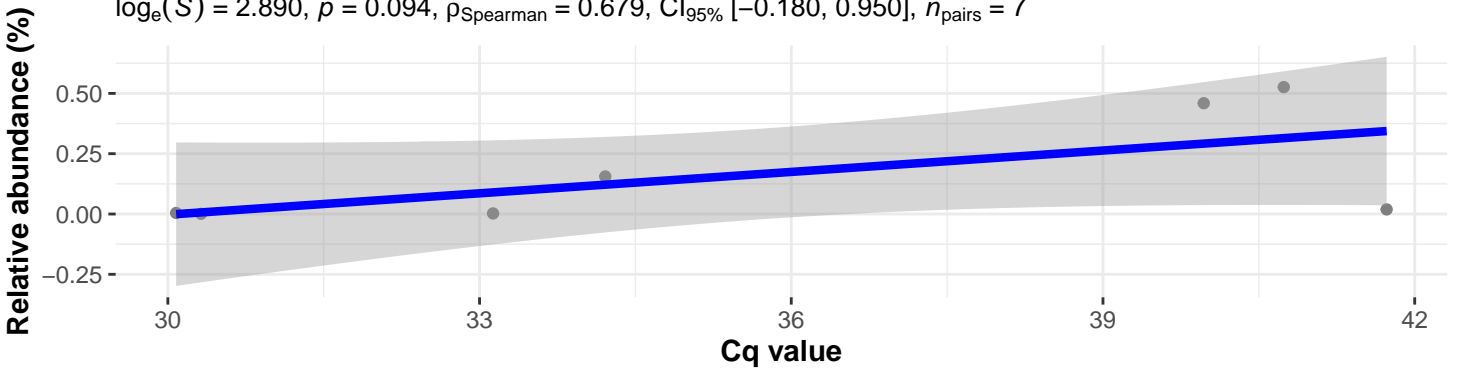
Correlation within: Tilapia\_wild\_lake

$\log_e(S) = 5.124$ ,  $p = 0.286$ ,  $\hat{\rho}_{\text{Spearman}} = -0.400$ ,  $\text{CI}_{95\%} [-0.848, 0.380]$ ,  $n_{\text{pairs}} = 9$



Correlation within: Perch\_wild\_lake

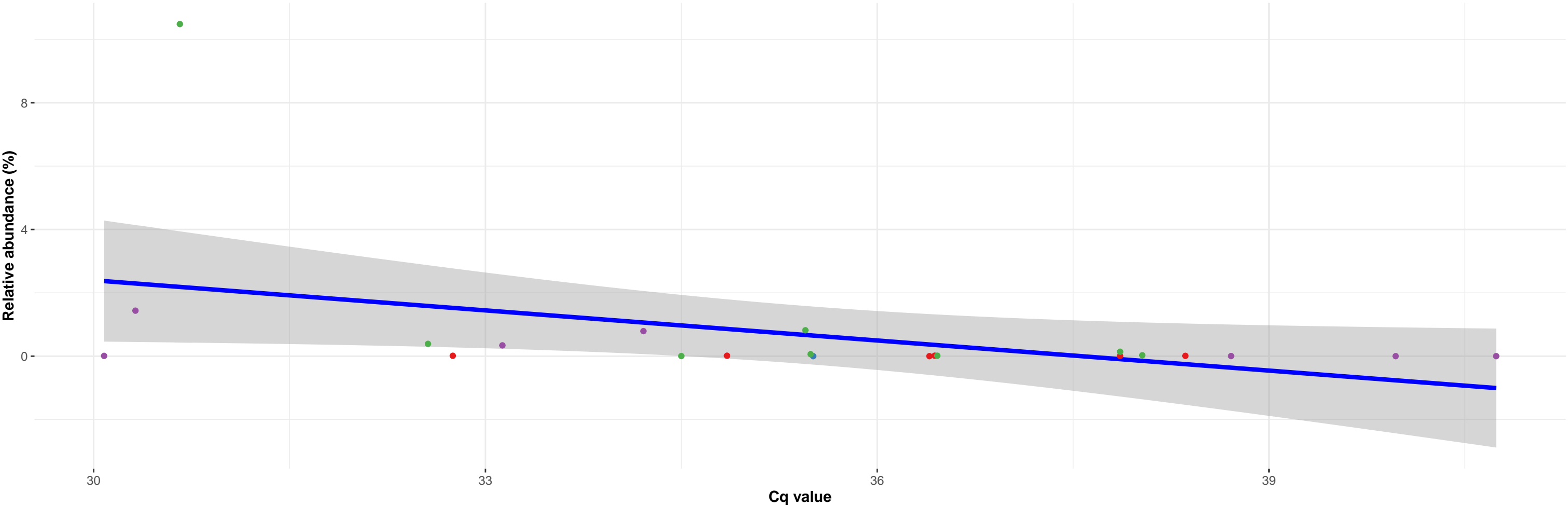
$\log_e(S) = 2.890$ ,  $p = 0.094$ ,  $\hat{\rho}_{\text{Spearman}} = 0.679$ ,  $\text{CI}_{95\%} [-0.180, 0.950]$ ,  $n_{\text{pairs}} = 7$



featureID: 50b18b94311c09ff882fda744bc15200

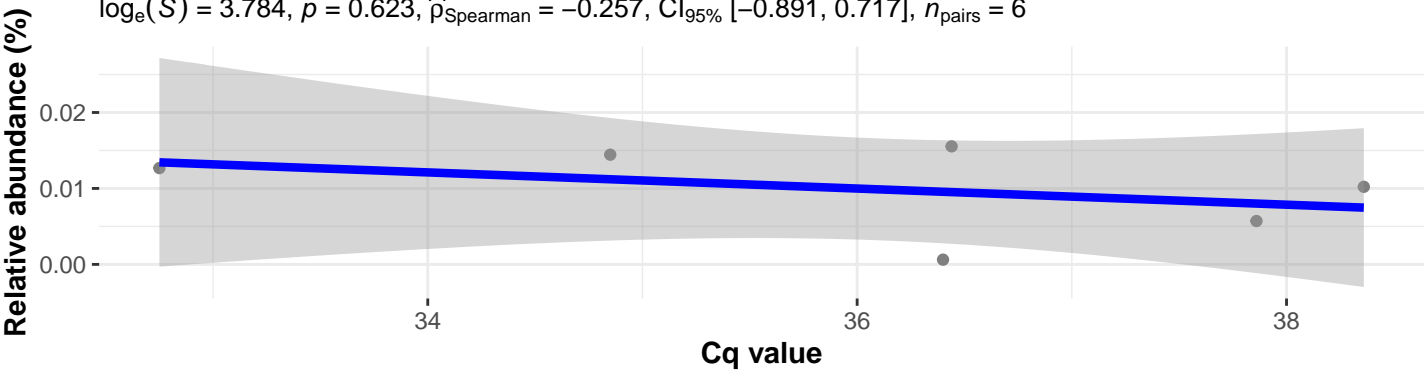
Correlation with all samples

$\log_e(S) = 7.907$ ,  $p = 0.011$ ,  $\hat{\rho}_{\text{Spearman}} = -0.533$ ,  $\text{CI}_{95\%} [-0.785, -0.131]$ ,  $n_{\text{pairs}} = 22$

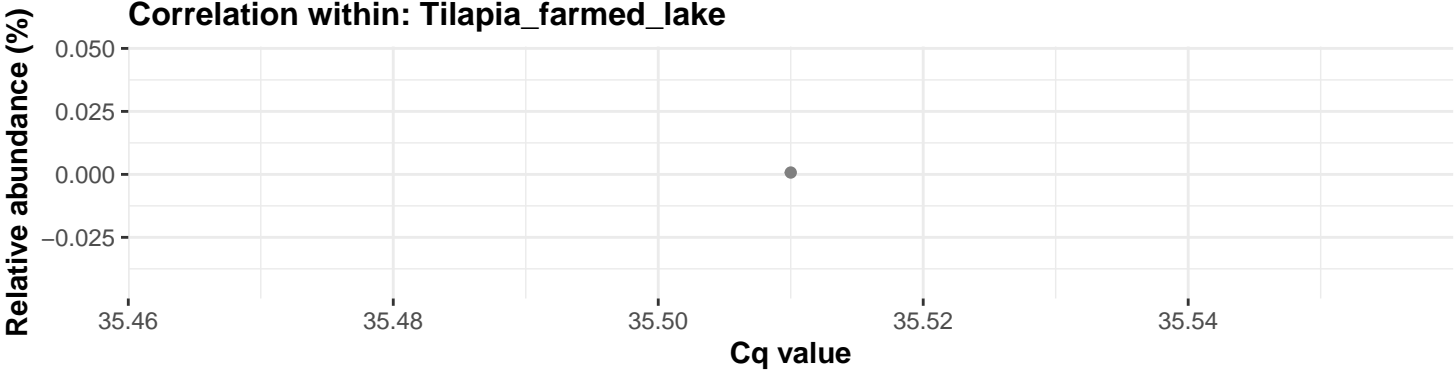


Correlation within: Tilapia\_farmed\_pond

$\log_e(S) = 3.784$ ,  $p = 0.623$ ,  $\hat{\rho}_{\text{Spearman}} = -0.257$ ,  $\text{CI}_{95\%} [-0.891, 0.717]$ ,  $n_{\text{pairs}} = 6$

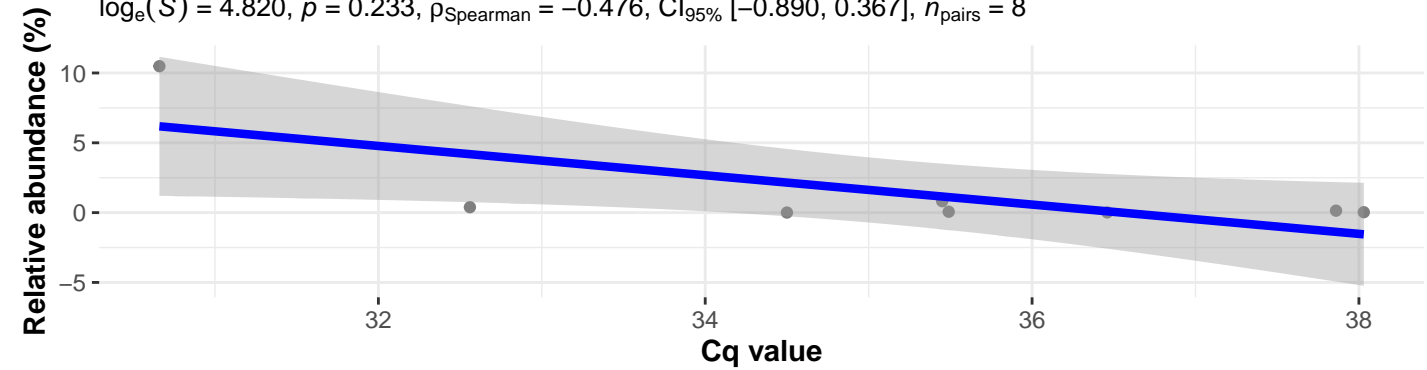


Correlation within: Tilapia\_farmed\_lake



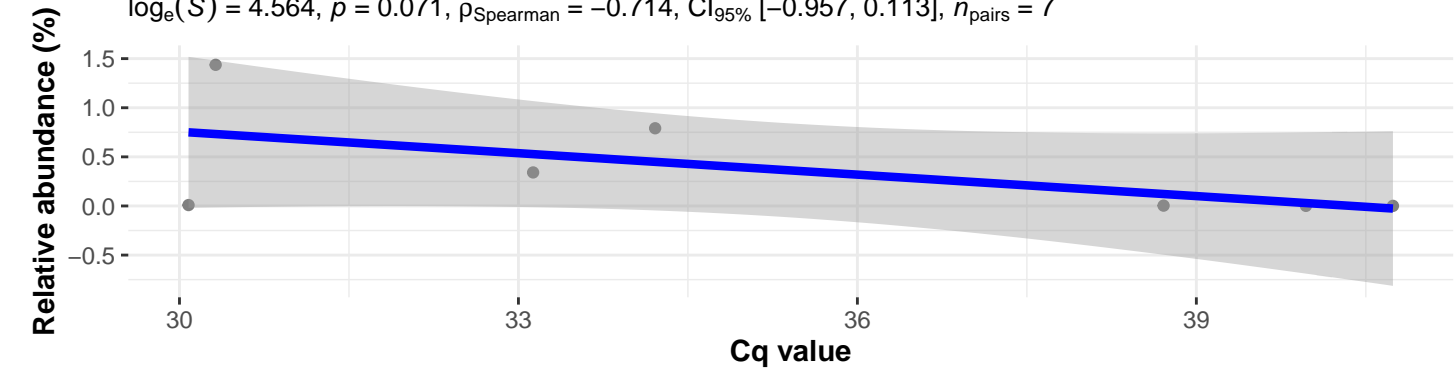
Correlation within: Tilapia\_wild\_lake

$\log_e(S) = 4.820$ ,  $p = 0.233$ ,  $\hat{\rho}_{\text{Spearman}} = -0.476$ ,  $\text{CI}_{95\%} [-0.890, 0.367]$ ,  $n_{\text{pairs}} = 8$



Correlation within: Perch\_wild\_lake

$\log_e(S) = 4.564$ ,  $p = 0.071$ ,  $\hat{\rho}_{\text{Spearman}} = -0.714$ ,  $\text{CI}_{95\%} [-0.957, 0.113]$ ,  $n_{\text{pairs}} = 7$

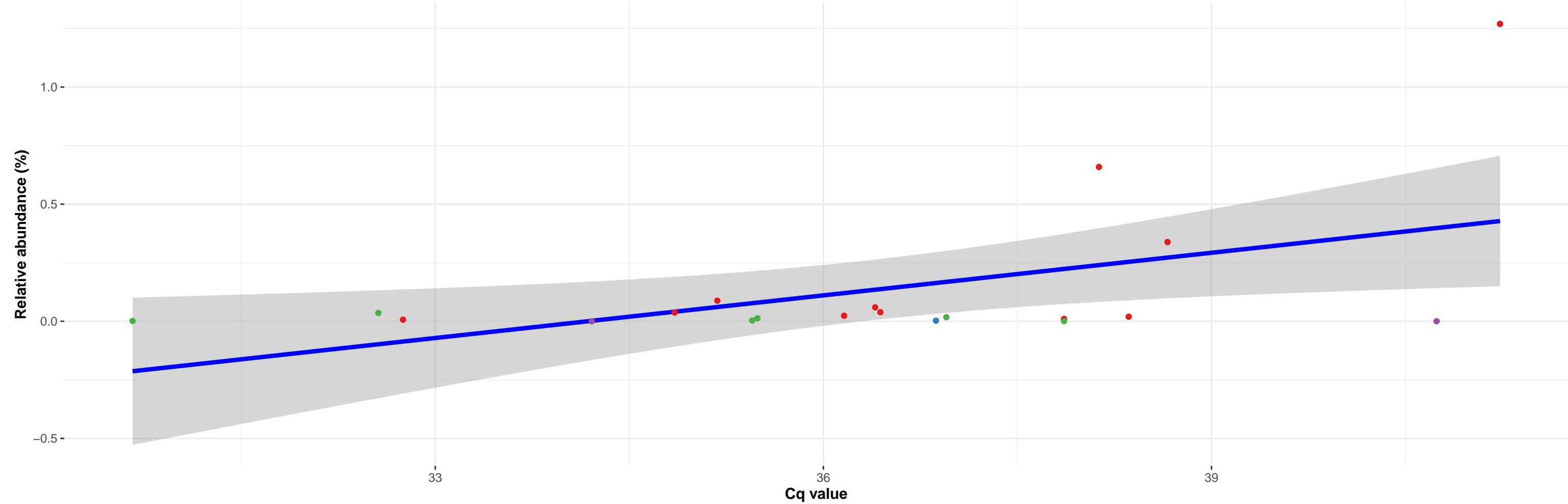


k\_\_Bacteria; p\_\_Firmicutes; c\_\_Erysipelotrichia; o\_\_Erysipelotrichales; f\_\_Erysipelotrichaceae; g\_\_Turcibacter; s\_\_uncultured bacterium

featureID: 8440d53055be17f665533f3bf79970b8

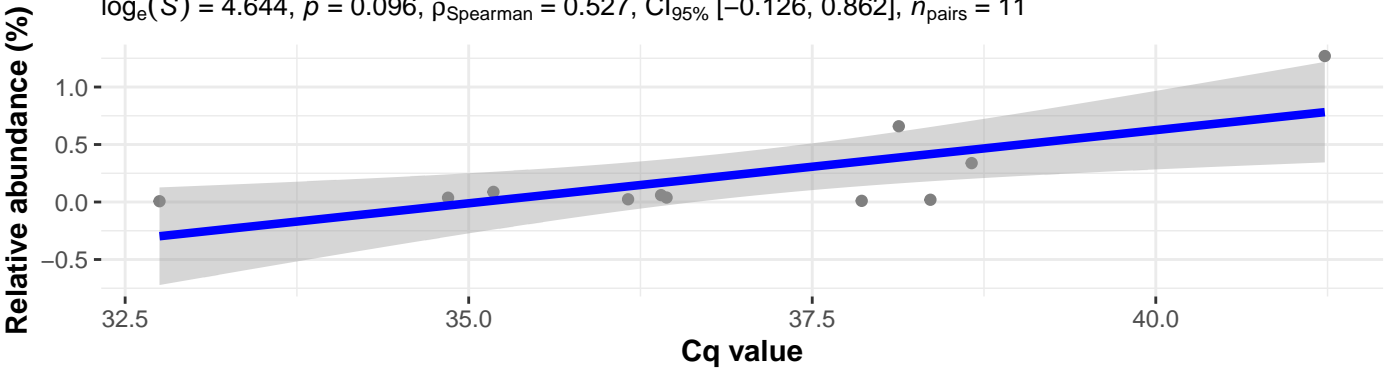
Correlation with all samples

$\log_e(S) = 6.924$ ,  $p = 0.318$ ,  $\hat{\rho}_{\text{Spearman}} = 0.235$ ,  $\text{CI}_{95\%} [-0.244, 0.623]$ ,  $n_{\text{pairs}} = 20$

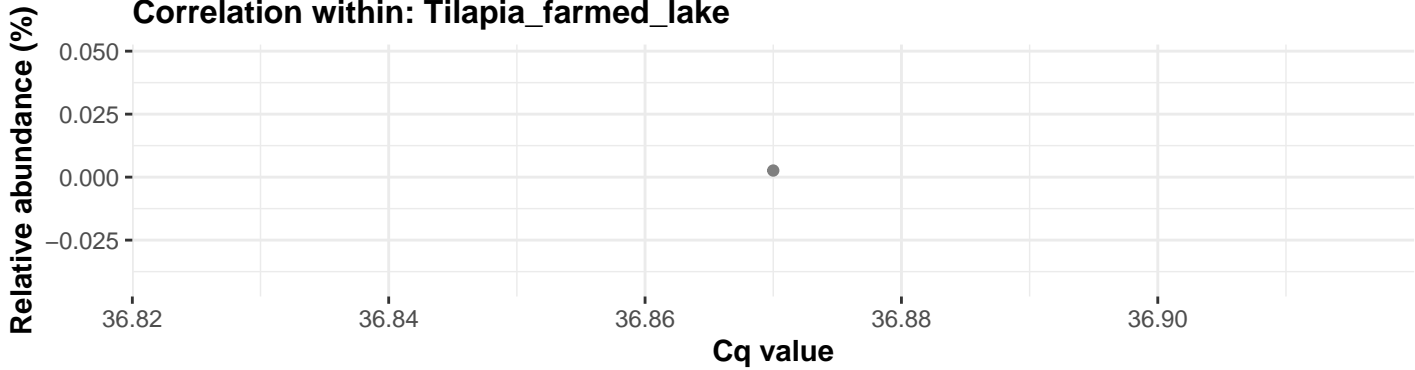


Correlation within: Tilapia\_farmed\_pond

$\log_e(S) = 4.644$ ,  $p = 0.096$ ,  $\hat{\rho}_{\text{Spearman}} = 0.527$ ,  $\text{CI}_{95\%} [-0.126, 0.862]$ ,  $n_{\text{pairs}} = 11$

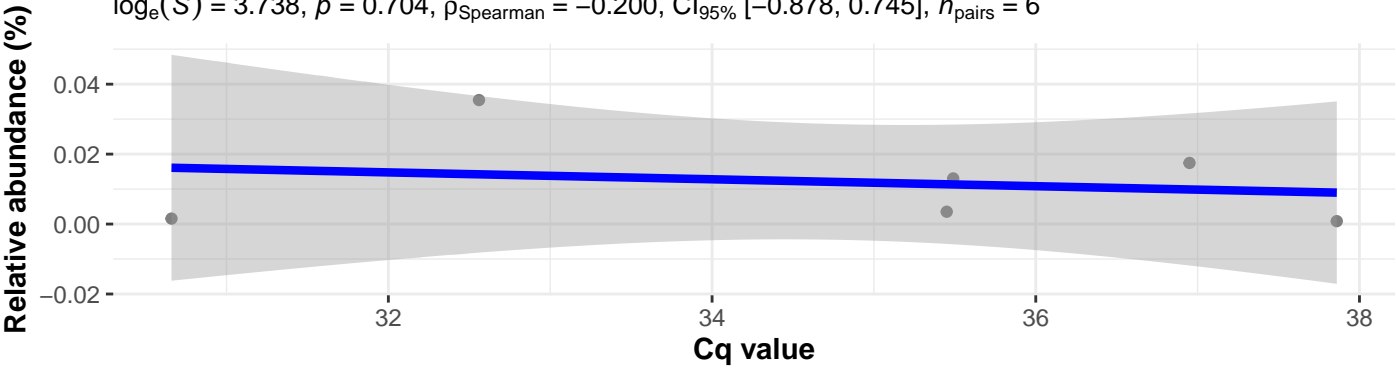


Correlation within: Tilapia\_farmed\_lake

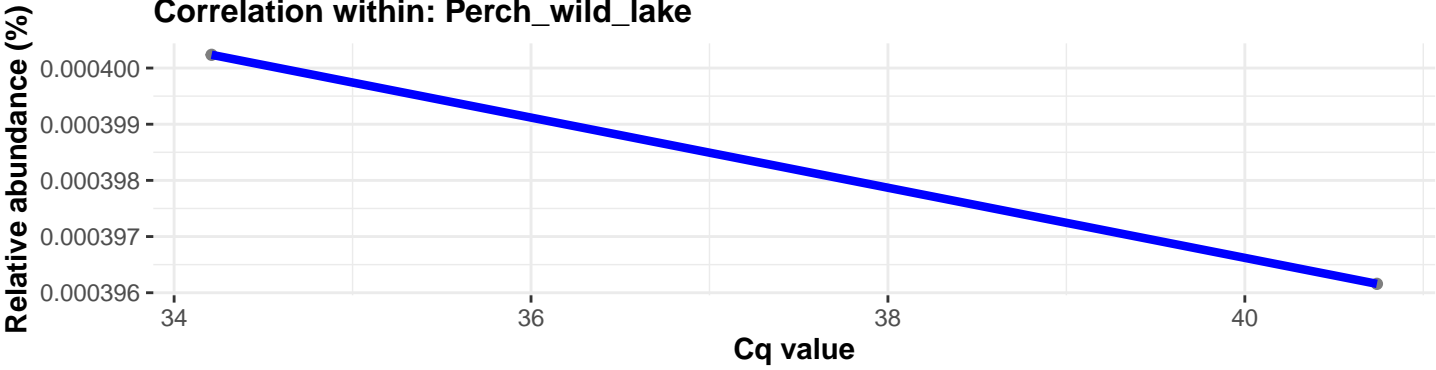


Correlation within: Tilapia\_wild\_lake

$\log_e(S) = 3.738$ ,  $p = 0.704$ ,  $\hat{\rho}_{\text{Spearman}} = -0.200$ ,  $\text{CI}_{95\%} [-0.878, 0.745]$ ,  $n_{\text{pairs}} = 6$



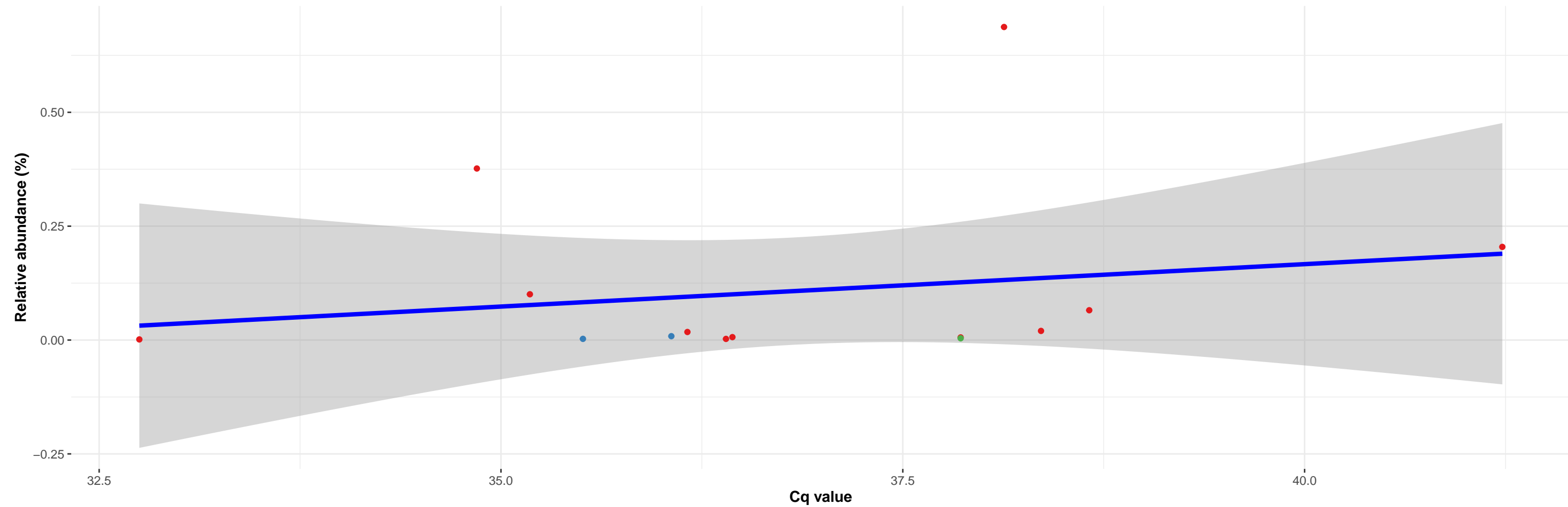
Correlation within: Perch\_wild\_lake



k\_\_Bacteria; p\_\_Firmicutes; c\_\_Clostridia; o\_\_Clostridiales; f\_\_uncultured; Ambiguous\_taxa; Ambiguous\_taxa

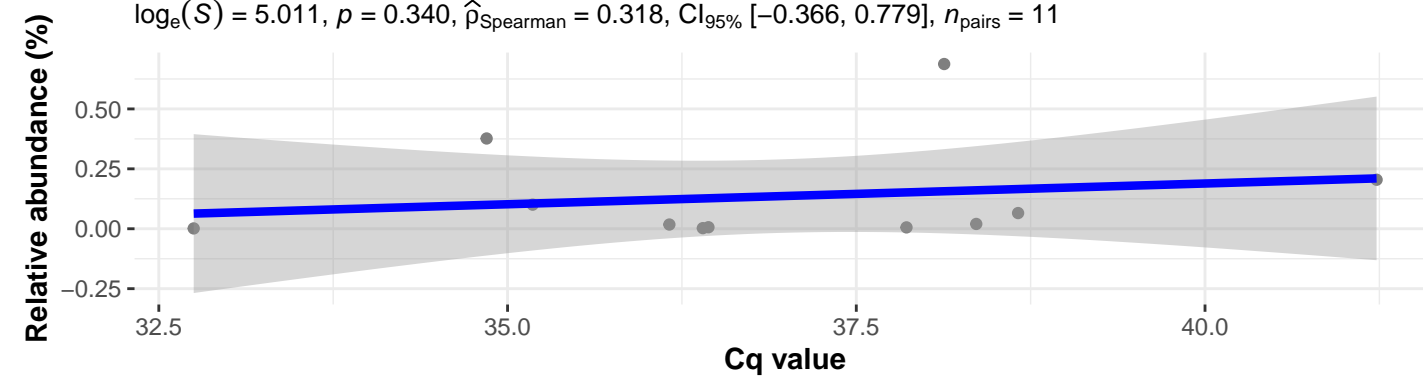
featureID: c63bd7419c3dcdbff038ae017cba123c

## Correlation with all samples

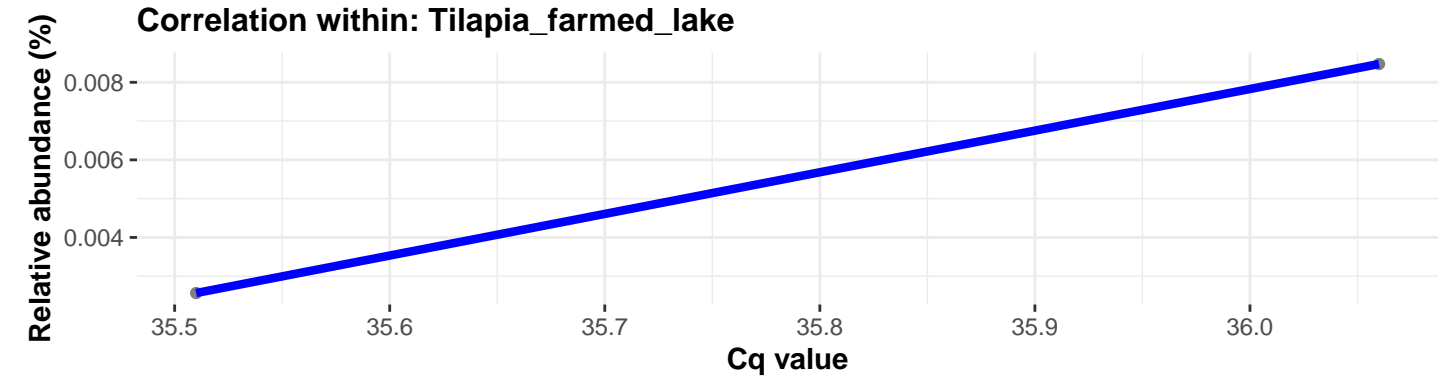
$$\log_e(S) = 5.720, p = 0.249, \hat{\rho}_{\text{Spearman}} = 0.330, \text{CI}_{95\%} [-0.259, 0.740], n_{\text{pairs}} = 14$$


**Sample\_type**    ● Tilapia\_farmed\_pond    ● Tilapia\_farmed\_lake    ● Tilapia\_wild\_lake

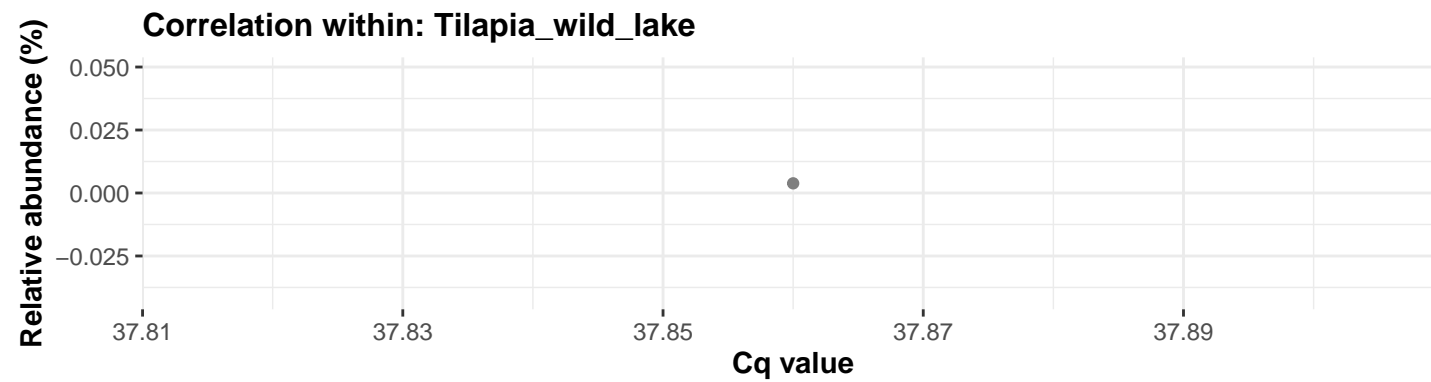
### Correlation within: Tilapia\_farmed\_pond

$$\log_e(S) = 5.011, p = 0.340, \hat{\rho}_{\text{Spearman}} = 0.318, \text{CI}_{95\%} [-0.366, 0.779], n_{\text{pairs}} = 11$$


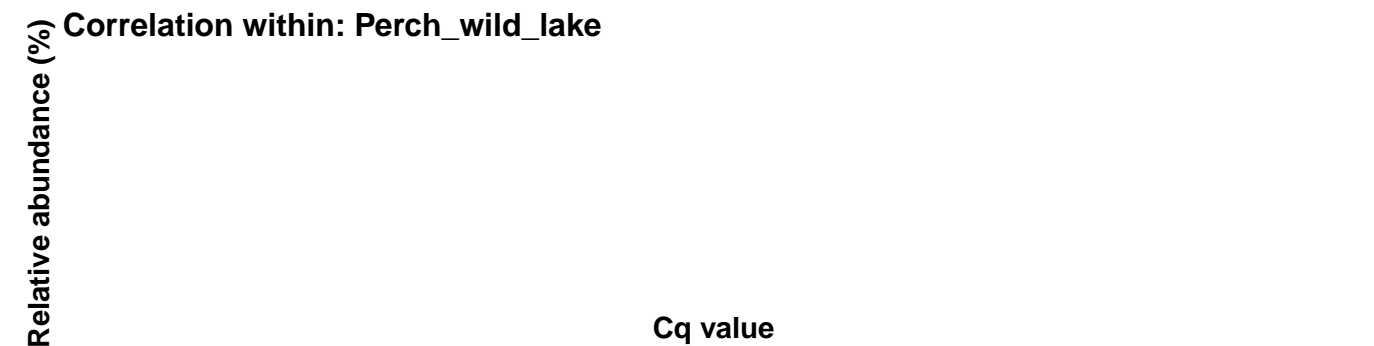
### Correlation within: Tilapia\_farmed\_lake



### Correlation within: Tilapia\_wild\_lake



### Correlation within: Perch\_wild\_lake

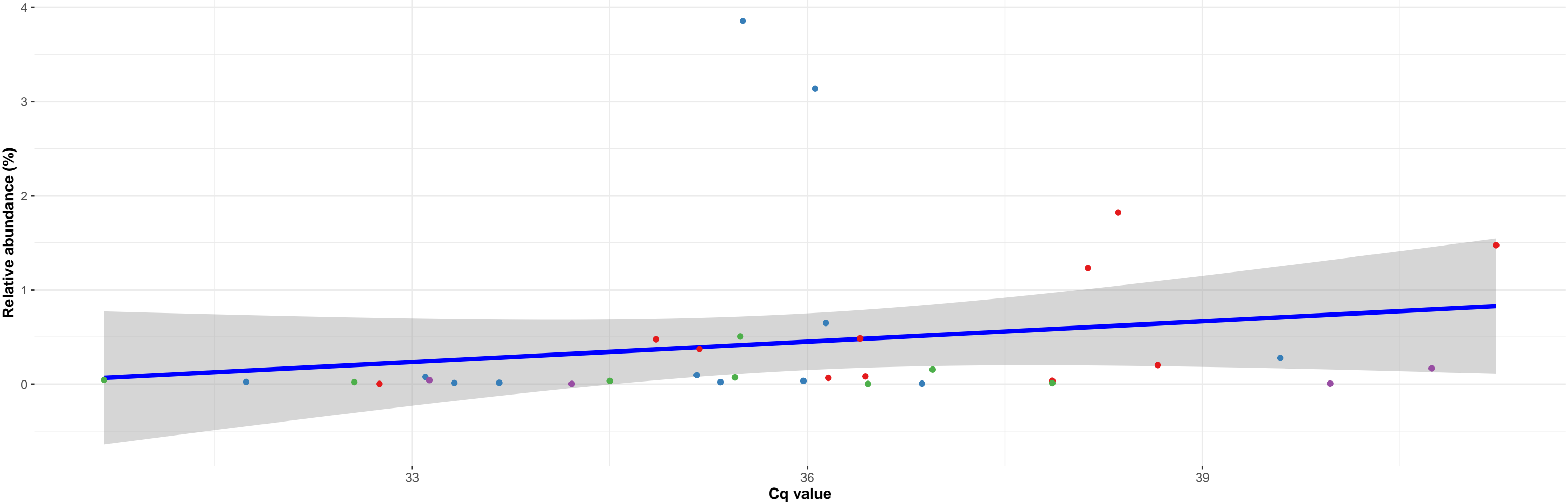


k\_\_Bacteria; p\_\_Firmicutes; c\_\_Clostridia; o\_\_Clostridiales; f\_\_Clostridiaceae 1; g\_\_Clostridium sensu stricto 1; NA

featureID: e576356609fe0b38cefff9ad3b12816a

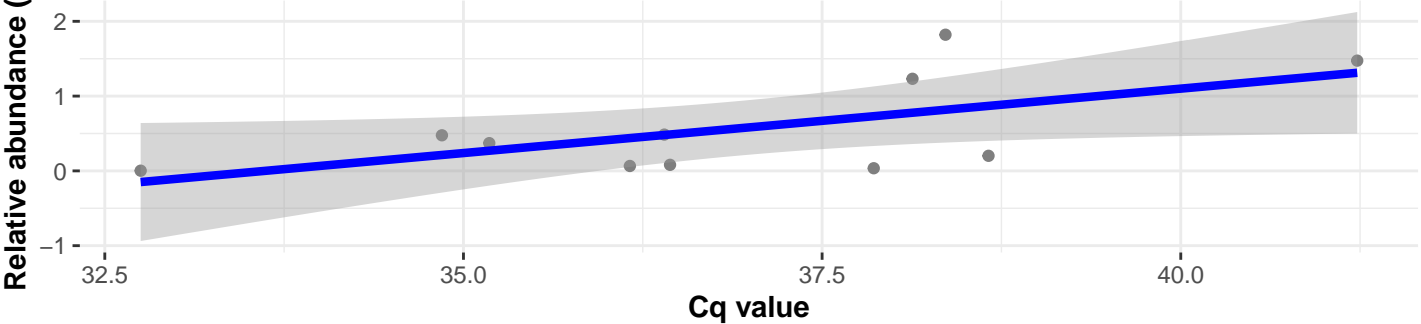
Correlation with all samples

$\log_e(S) = 8.475$ ,  $p = 0.054$ ,  $\hat{\rho}_{\text{Spearman}} = 0.329$ ,  $CI_{95\%} [-0.015, 0.603]$ ,  $n_{\text{pairs}} = 35$



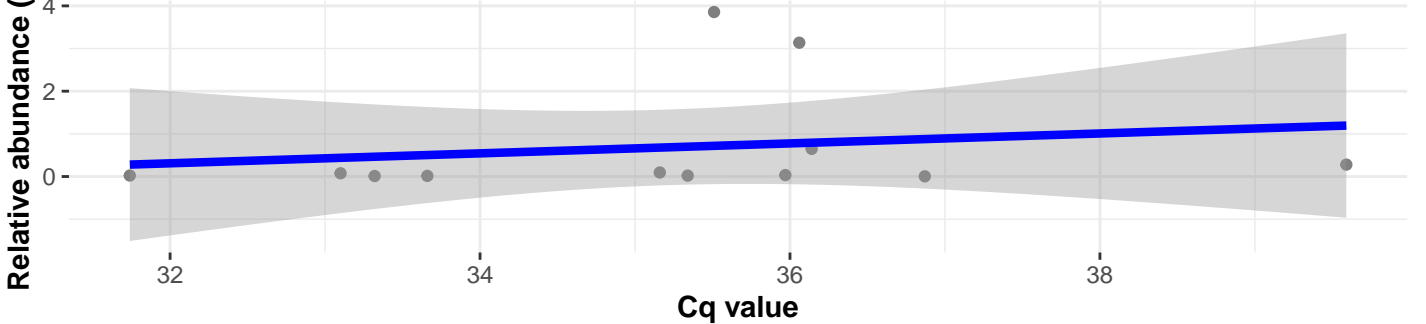
Correlation within: Tilapia\_farmed\_pond

$\log_e(S) = 4.644$ ,  $p = 0.096$ ,  $\hat{\rho}_{\text{Spearman}} = 0.527$ ,  $CI_{95\%} [-0.126, 0.862]$ ,  $n_{\text{pairs}} = 11$



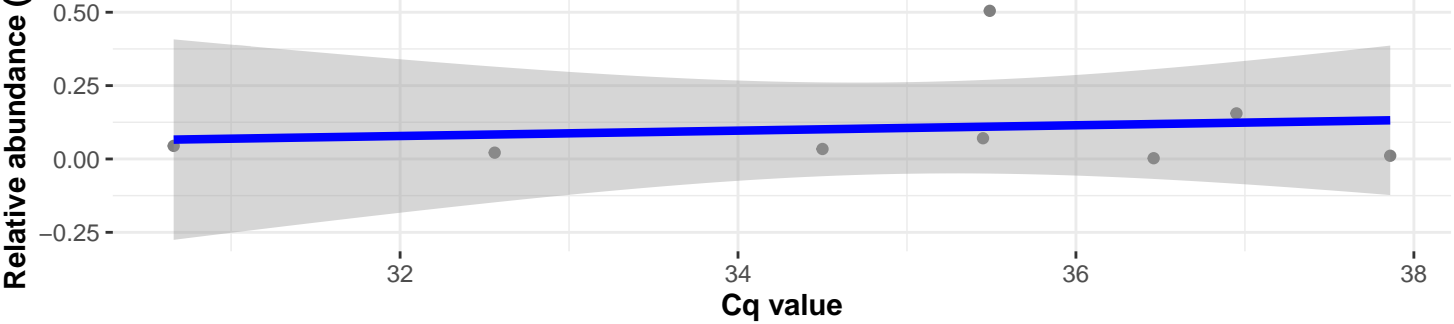
Correlation within: Tilapia\_farmed\_lake

$\log_e(S) = 5.288$ ,  $p = 0.331$ ,  $\hat{\rho}_{\text{Spearman}} = 0.308$ ,  $CI_{95\%} [-0.340, 0.758]$ ,  $n_{\text{pairs}} = 12$



Correlation within: Tilapia\_wild\_lake

$\log_e(S) = 4.522$ ,  $p = 0.823$ ,  $\hat{\rho}_{\text{Spearman}} = -0.095$ ,  $CI_{95\%} [-0.761, 0.668]$ ,  $n_{\text{pairs}} = 8$



Correlation within: Perch\_wild\_lake

