**MWQ**

* All habitats
  + Best model to use according to dredge is Tot ~ Temperature
  + Chi-sq test shows a significant difference which is not what we want
  + However correlation shows a significant correlation but it’s a fairly low correlation 0.1101584
* Lake
  + Dredge shows no variables against abundance would be best but second best would be pH
  + Chi-sq shows significant difference which is what we are not looking for
  + However correlation shows a significant correlation however this is low
    - 0.08497717
* Riverine
  + Dredge shows Temperature as the best variable
  + Chi-sq shows a significant difference
  + Correlations shows a significant correlation but it is low almost negligible 0.1101584
* Wetland
  + Dredge shows specific conductance as the second best model
  + Chisw showed no difference
  + Correlation however is not significant enough and is negative
    - -0.04691293

**Arachnida**

* All habitats
  + Best model to use according to dredge is Tot ~ Temperature
  + Chi-sq test shows a no significant difference
  + However correlation shows a significant correlation but it’s a fairly low correlation 0.1801077
* Lake
  + Dredge shows no variables against abundance would be best but second best would be Dissolved Oxygen
  + Chi-sq shows no significant difference which is what we are looking for
  + However correlation shows no significance -0.006581379
* Riverine
  + Dredge shows Temperature as the best variable
  + Chi-sq shows no significant difference
  + Correlations shows no significant correlation but it is close 0.1313904
* Wetland
  + Dredge shows pH as the second best model
  + Chisq showed no difference
  + Correlation however is not significant enough and correlation is negative

-0.03453036

**BIVALIVA**

* All habitats
  + Best model to use according to dredge is Tot ~ Temperature + DO + pH
  + Chi-sq test shows no significant difference
  + However correlation shows a highly significant correlation but it’s a fairly low correlation 0.1890982
* Lake
  + Not a good model -0.2807253
* Riverine
  + Dredge shows Temperature and Dissolved oxygen and pH
  + Chi-sq shows no significant difference
  + Correlations shows no significant correlation 0.07618336
* Wetland
  + Dredge shows DO as the best model
  + Chisq showed no difference
  + Correlation however is significant enough and negligible corelated 0.2507066

**CLITELLATA**

* All habitats
  + Best model to use according to dredge is Tot ~ Temperature + DO
  + Chi-sq test shows no significant difference
  + However correlation shows no significant correlation and its negative

-0.03970775

* Lake
  + Not a good model correlation not significant 0.2846941
* Riverine
  + Dredge shows Temperature and Dissolved oxygen and pH
  + Chi-sq shows no significant difference
  + Correlations shows no significant correlation and is negative -0.04395936
* Wetland
  + Dredge shows Specifc conductance as the second best model
  + Chisq showed no difference
  + Correlation is significant and is negligible correlation 0.2691518

**ENOPLA**

* All habitats
* Warning messages:
  + 1: In theta.ml(Y, mu, sum(w), w, limit = control$maxit, trace = control$trace > :iteration limit reached
  + 2: In theta.ml(Y, mu, sum(w), w, limit = control$maxit, trace = control$trace > :iteration limit reached
  + Best model to use according to dredge is Tot ~ DO, second best
  + Chi-sq test shows no significant difference
  + However correlation shows no significant correlation and its negative
* Lake
  + No Lake habitats
* Riverine
  + Dredge shows Dissolved oxygen as second best
  + Chi-sq shows no significant difference
  + Correlations shows no significant correlation
* Wetland
  + Too few observations

**GASTROPODA**

* All habitats
  + Dredge shows ph, specific conductivity, and temperature are the best type model
  + Chi-sq shows no significant difference between the models
  + Correlations shows high significant correlation though negligble corelated at 0.2623837
* Lake
  + Lake observations too few
* Riverine
  + Dredge shows pH, Temperature, Specific Conductance
  + Chi-sq shows no significant difference
  + Correlation shows significant correlation and is low to moderately correlated at Correlations shows high significant correlation low to moderately corelated at 0.2623837
* Wetland
  + Dredge shows Temperature as the best model
  + Chi-sq shows no significance though it is close
  + Correlation is significantly corelated and neglibly so 0.3337489

**INSECTA**

* All habitats
  + Dredge shows Dissolved oxygen, specific conductivity, and temperature are the best type model
  + Chi-sq shows no significant difference between the models
  + Correlations shows high significant correlation though negligble corelated at 0.1032214
* Lake
  + Not a good model the best one was none of the variables
* Riverine
  + Dredge shows Dissolved oxygen, Temperature, Specific Conductance
  + Chi-sq shows no significant difference
  + Correlation shows significant correlation and is low corelated at 0.1263221
* Wetland
  + Dredge shows no model as a good model

**MAXILLOPODA**

* All habitats
  + Dredge shows Dissolved oxygen and temperature are the best type model
  + Chi-sq shows no significant difference between the models
  + Correlations shows high significant correlation though negligble corelated at 0.1480151
* Lake
  + Temperature is the best model variable
  + Chisq shows no sig difference
  + No significant correlation and negative -0.2449179
* Riverine
  + Dredge shows Dissolved oxygen, Temperature, Specific Conductance
  + Chi-sq shows no significant difference
  + Correlation shows no significant correlation and is low corelated at 0.1027862
* Wetland
  + Dredge shows Dissolved oxygen and pH.
  + Chisq show no significant difference
  + Correlation shows a significant correlation but it is low almost negligible 0.2972513

**TURBELLARIA**

* All habitats
  + Dredge shows all variables as the best model
  + Chi-sq shows no significant difference between the models
  + Correlations shows significant correlation though negligble corelated at 0.158299
* Lake
  + Not enough observations to justify
* Riverine
  + Dredge shows all variables as a good match
  + Chi-sq shows no significant difference
  + Correlation shows no significant correlation and is low corelated at 0.1112857
* Wetland
  + Dredge shows Dissolved oxygen
  + Chisq show no significant difference
  + Correlation shows a significant correlation and is moderate 0.3375978

**AMPHIPODA**

* All habitats
  + Dredge shows all variables as the best model
  + Chi-sq shows no significant difference between the models
  + Correlations shows significant correlation though negligble corelated at 0.158299
* Lake
  + Not enough observations to justify
* Riverine
  + Dredge shows all variables as a good match
  + Chi-sq shows no significant difference
  + Correlation shows no significant correlation and is low corelated at 0.1112857
* Wetland
  + Dredge shows Dissolved oxygen
  + Chisq show no significant difference
  + Correlation shows a significant correlation and is moderate 0.3375978