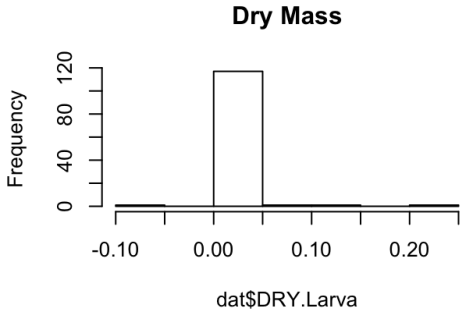
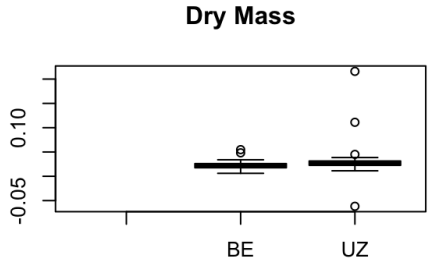
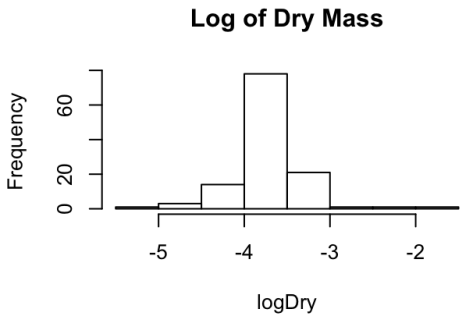
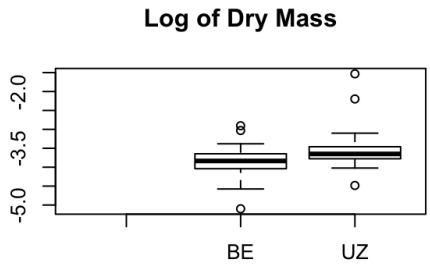
```
hist(logDry, main="Log of Dry Mass")
boxplot(logDry~dat$Colony.Info, main="Log of Dry Mass")
```

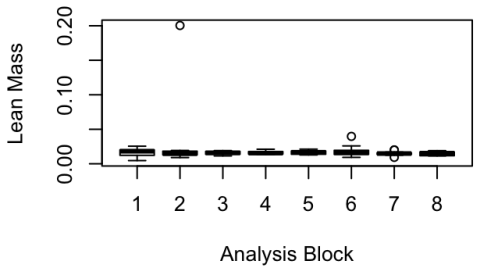


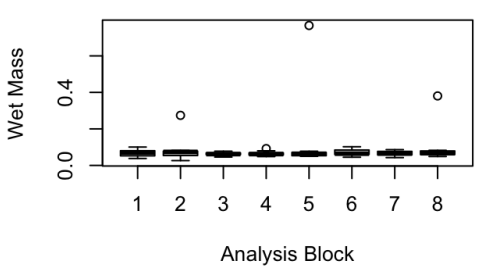


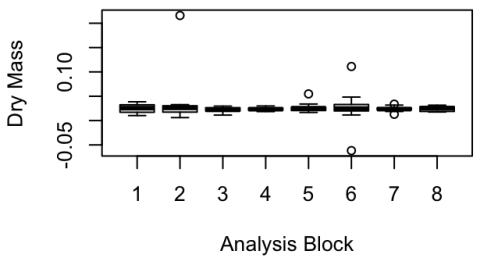


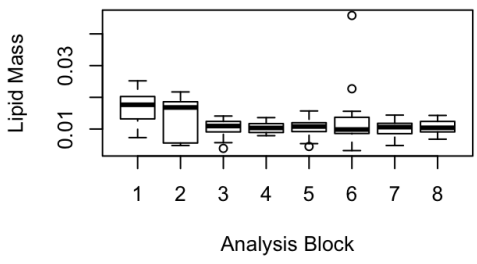



```
boxplot(dat$LEAN.Larvae~dat$Block, xlab="Analysis Block", ylab="Lean Mass")
boxplot(dat$WET.Larva~dat$Block, xlab="Analysis Block", ylab="Wet Mass")
boxplot(dat$DRY.Larva~dat$Block, xlab="Analysis Block", ylab="Dry Mass")
boxplot(dat$Lipid.Wt~dat$Block, xlab="Analysis Block", ylab="Lipid Mass")
```

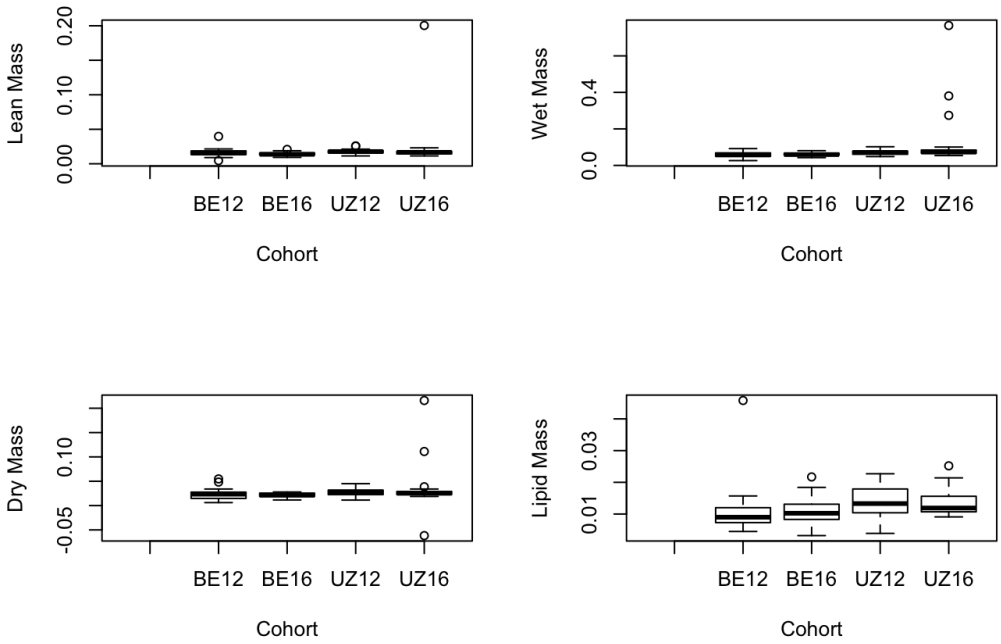









```
boxplot(dat$LEAN.Larvae~dat$Cohort, xlab="Cohort", ylab="Lean Mass")
boxplot(dat$WET.Larva~dat$Cohort, xlab="Cohort", ylab="Wet Mass")
boxplot(dat$DRY.Larva~dat$Cohort, xlab="Cohort", ylab="Dry Mass")
boxplot(dat$Lipid.Wt~dat$Cohort, xlab="Cohort", ylab="Lipid Mass")
```




```
Lipid=dat$Lipid.Wt
Species=dat$Colony.Info
Light=dat$Season
Wet=dat$WET.Larva
Lean=dat$LEAN.Larvae
Dry=dat$DRY.Larva

y=cbind(Lipid,Wet,Lean,Dry)
A=Species
B=Light

allvar_manova=manova(y~A*B)
summary(allvar_manova, test = "Pillai")
```

```
##            Df   Pillai approx F num Df den Df  Pr(>F)
## A           1 0.112516   3.3280      4    105 0.01311 *
## B           1 0.080931   2.3115      4    105 0.06250 .
## A:B         1 0.023772   0.6392      4    105 0.63568
## Residuals 108
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
summary.aov(allvar_manova)
```

```
##  Response Lipid :
##              Df     Sum Sq   Mean Sq F value   Pr(>F)
## A             1 0.00026250 2.625e-04  9.4797 0.002634 **
## B             1 0.00000366 3.665e-06  0.1323 0.716723
## A:B           1 0.00000473 4.734e-06  0.1710 0.680076
## Residuals   108 0.00299057 2.769e-05
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
##  Response Wet :
##              Df  Sum Sq   Mean Sq F value  Pr(>F)
## A             1 0.02310 0.0230995  4.4750 0.03669 *
## B             1 0.00946 0.0094644  1.8335 0.17854
## A:B           1 0.00987 0.0098666  1.9114 0.16966
## Residuals   108 0.55749 0.0051619
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
##  Response Lean :
##              Df     Sum Sq    Mean Sq F value  Pr(>F)
## A             1 0.00008157 8.1566e-05  5.1891 0.02470 *
## B             1 0.00008747 8.7468e-05  5.5646 0.02013 *
## A:B           1 0.00000511 5.1070e-06  0.3249 0.56985
## Residuals   108 0.00169762 1.5719e-05
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
##  Response Dry :
##              Df    Sum Sq    Mean Sq F value Pr(>F)
## A             1 0.0004551 0.00045507  2.4117 0.1234
## B             1 0.0001028 0.00010282  0.5449 0.4620
## A:B           1 0.0000084 0.00000842  0.0446 0.8331
## Residuals   108 0.0203793 0.00018870
##
## 10 observations deleted due to missingness
```